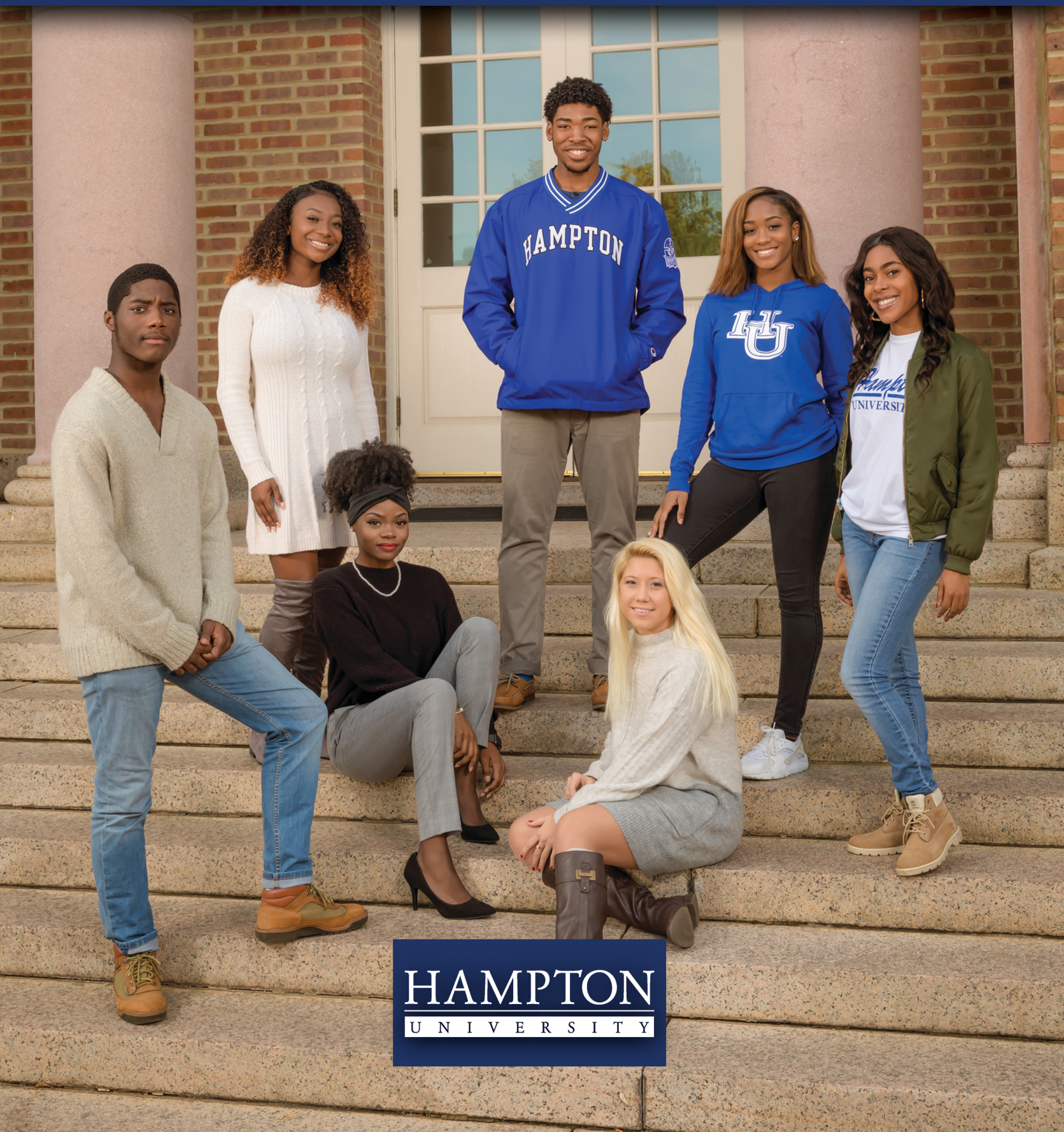
Hampton University

Academic Catalog 2020-2022



Hampton University

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Hampton University adheres to the principle of equal education and employment opportunity without regard to race, sex, color, creed, national origin or disability. This policy extends to all programs and activities supported by the University; including the Undergraduate College, Hampton U Online, and the Graduate College.

Hampton University's Drug-Free Work Place policy concerning the use, distribution, possession, transport or sale of illicit, over-the-counter, and prescription drugs and alcohol, incorporates regulations promulgated by the Federal Drug-Free Work Place Act of 1988, and the Department of Education's Drug-Free Schools and Communities Act Amendments of 1989, Public Law 101-226. Both laws are inclusive for administrators, faculty, students and all other employees working on Hampton University's properties, on or off campus. This policy has been distributed, posted and is communicated annually through educational reminders.

For information regarding admission, please address correspondence to:

Director of University Admissions, Director of Hampton U Online or Dean of the Graduate College (as appropriate) Hampton University Hampton, VA 23668

Entered as Third Class Matter at Hampton, VA and other mailing offices.

The information in this catalog is to be regarded as a binding contract between the applicant or the student and Hampton University; however, the University reserves the unilateral right to change the requirements, regulations, rules, and fees set forth herein at any time without prior notice.

Contents

Hampton University Code of Conduct

Joining the Hampton Family is an honor and requires each individual to uphold the policies, regulations, and guidelines established for students, faculty, administration, professional and other employees, and the laws of the Commonwealth of Virginia. Members of the Hampton Family embrace the core values of Exceptional Character: Respect, Professionalism, Integrity, and Community. No member shall lie, cheat or steal and each member is required to adhere to and conform to the instructions and guidance of the leadership of his/her respective area. Therefore, in maintaining The Standard of Excellence, the following are expected of each member of the Hampton Family:

Respect:

1. **To respect himself or herself.**

   Each member of the Hampton Family will exhibit a high degree of maturity and self-respect and foster an appreciation for other cultures, one's own cultural background, as well as the cultural heritage from which Hampton University was born. It is only through these appreciations that the future of our university can be sustained indefinitely.

2. **To respect the dignity, feelings, worth, and values of others.**

   Each member of the Hampton Family will respect one another and visitors as if they were guests in one's home. Students, faculty, and staff should engage in behaviors that are uplifting and encouraging. Moreover, to accost, bully, cajole, or proselytize students, faculty or staff, parents or others, use vile, obscene or abusive language or exhibit lewd behavior, is in direct violation of the Hampton University Code, on or off campus.

Professionalism:

3. **To foster a personal professional work ethic within the Hampton University Family.**

   Every member of the Hampton Family must strive for efficiency and job perfection. Each individual must exhibit a commitment to serve, and tasks must be executed in a humane and civil manner.

4. **To foster an open, fair, and caring environment.**

   The University will maintain an open and caring environment. It is understood that intellectual stimulation is nurtured through the sharing of ideas. In cases where issues arise, each member of the Hampton Family is assured equal and fair treatment.

Integrity:

5. **To respect the rights and property of others.**

   Each member of the Hampton Family will only engage in activities that are legal and ethical, both on and off campus. No member shall lie, cheat or steal. Other transgressions include, but are not limited to, harassment of any form, possession of weapons such as knives and firearms, involvement in possession, use, distribution and sale of illegal drugs, theft, vandalism or hazing. Violators will be subject to all applicable provisions listed in the Faculty Handbook, Personnel Policies Manual for Administrative/Professional and Nonexempt Employees, the Official Student Handbook, the Hampton University Code, and statutes of the Commonwealth of Virginia.

6. **To practice personal, professional, and academic integrity**

   the survival and potential of the Hampton Family. Therefore, individuals found in violation of Hampton University's policies against lying, cheating, plagiarism, or stealing are subject to disciplinary action that could possibly include dismissal from the University.

Community:

7. **To promote inclusion, while striving to learn from differences in people, ideas, and opinions**.

   Each member of the Hampton Family will support equal rights and opportunities for all regardless of age, sex, race, sexual orientation, religion, disability, ethnic heritage, socio-economic status, political, social, or other affiliation or disaffiliation.

8. **To promote the ethical use of technology and social media**

   As a Hampton Family we embrace the digital age. Each member of the Hampton Family is expected to use technology in a responsible and respectful manner. Individuals should utilize their best judgment before posting content and should specifically refrain from cyber bullying or using social media to cheat. Uses of technology or social media posts that violate any of the aforementioned tenets of this Code will subject one to disciplinary action.

9. **To be fully responsible for upholding the Hampton University Code.**

   Each member of the Hampton Family will embrace all tenets of the Code of Conduct, Policies, and the Honor Pledge and is encouraged to report all violators to the appropriate administrator or the Council for Institutional Culture and Values.[1]

[1] Approved by Administrative Council, July 31, 2018

General Information

Founded in 1868, Hampton University's main campus is located on 270 acres of Virginia's Peninsula at the mouth of the Chesapeake Bay and is the oldest private, nonsectarian, co-educational, post-secondary institution in the southeast Commonwealth of Virginia. Hampton University is an historically black, privately endowed, co-educational institution of higher education founded in 1868 for the education of African Americans. In 1916, Hampton achieved status as a four-year secondary school by the Virginia Department of Public Instruction. The first bachelor's degrees were offered in 1922. Courses at the secondary level were dropped gradually, and all resources of the institution were applied to education at the college level. Accreditation as a Class "A" College was achieved during the 1932-33 academic year. In recognition of the growth and evolution of the school, in 1984 the Board of Trustees adopted the name Hampton University, while continuing to use the name Hampton Institute for the undergraduate college. Hampton initiated the following doctoral degree programs: the Doctor of Philosophy in Physics and in Nursing (1992 and 1999, respectively); the Doctor of Pharmacy (1998); and the Doctor of Physical Therapy (1999). Today, there are over 5,000 undergraduate and nearly 1,000 graduate and professional students. Approximately 88% of the students are African American, nearly 9% are Caucasian and the remaining 3% are from other ethnic groups, including Native American, Asian, and Hispanic students. Hampton University ranks high in the South and Southeast due to its selectivity in admission, high standards of teaching, rigorous curricula and the professional activities of the faculty.

The Mission Statement

Hampton University is a comprehensive institution of higher education, dedicated to the promotion of learning, building of character, and preparation of promising students for positions of leadership and service. Its curricular emphasis is scientific and professional with a strong liberal arts undergirding. In carrying out its mission, the University requires that everything that it does be of the highest quality.

An historically black institution, Hampton University is committed to multiculturalism. The University serves students from diverse national, cultural, and economic backgrounds. From its beginning to the present, the institution has enrolled students from five continents — North America, South America, Africa, Asia and Europe — and many countries including Gabon, Kenya, Ghana, Japan, China, Armenia, Great Britain and Russia, as well as the Hawaiian and Caribbean Islands and numerous American Indian nations. Placing its students at the center of its planning, the University provides a holistic educational environment. Learning is facilitated by a range of educational offerings, a rigorous curriculum, excellent teaching, professional experiences, multiple leadership opportunities, and an emphasis on the development of character which values integrity, respect, decency, dignity, and responsibility.

Research and public service are integral parts of Hampton's mission. In order to enhance scholarship and discovery, faculty are engaged in writing, research and grantsmanship. Faculty, staff and students provide leadership and service to the University as well as the global community.

In achieving its mission, Hampton University offers exemplary programs and opportunities, which enable students, faculty and staff to grow, develop and contribute to society in a productive, useful manner.

History

When the Hampton Normal and Agricultural Institute opened its doors in April 1868, in the days of Reconstruction, listed as assets were two teachers, fifteen students, little money or equipment, and the faith in its principle of "learning by doing" and "education for life."

The principal was Samuel Chapman Armstrong, a 29-year-old Brigadier General, son of missionary parents. He had been assigned by the Freedmen's Bureau to help solve the problems of the thousands of former slaves who had gathered behind Union lines on the Virginia Peninsula. He founded, with the aid of the American Missionary Association, a school at Hampton to train selected young men and women "who should go out and teach and lead their people, first by example, and in this way to build up an industrial system for the sake not only of self-support and intelligent labor, but also for the sake of character." His goal was to train "the head, the hand, and the heart" of Hampton's students.

Hampton may well be thankful that in the concept of "Education for Life"—including efficiency, character, and usefulness to society—General Armstrong established a standard timeless in its appeal and application. Hampton today finds this concept highly adaptable to the changing conditions of life in this century and the likely challenges of the future. The first conditions for admission were simple: "Sound health, good character, age not less than fourteen years and not more than twenty-five, ability to read and write intelligibly, knowledge of arithmetic through long division, intention to remain throughout the whole course of three years and to become a teacher."

Support in the early days came from philanthropic and religious groups and individuals, from Federal Land Grant Funds (1872-1920), and numerous other sources. With the help of the Freedmen's Bureau and northern philanthropists, the school was able to erect a classroom building—Academic Hall, since rebuilt—in 1869. Residence quarters, however, continued to be a problem, with the men living in army tents for three years and the women living in barracks until the completion of Virginia Hall in 1874. Some of the money for this building was raised by the Hampton Singers, who toured northern communities.

In 1878, a group of American Indian men arrived at Hampton, their studies here supported in part by federal funds. These appro-

priations were continued until 1912. American Indian students continued to attend Hampton in this historic program until 1923.

After his death in 1893, General Armstrong's work was continued and expanded for nearly a quarter-century under the leadership of Reverend Hollis B. Frissell. In 1916, Hampton achieved status as a four-year secondary school by the Virginia Department of Public Instruction. The first bachelor's degrees were offered in 1922. Courses at the secondary level were dropped gradually, and all resources of the institution were applied to education at the college level. In 1930, the school's name was changed to Hampton Institute, and the title of its chief officer from principal to president. Accreditation as a Class "A" College was achieved during the 1932-33 academic year.

In line with its broadening educational program, the college inaugurated graduate courses in 1928. Coursework leading to the Master of Arts degree in education was offered during summer school sessions only. Although discontinued in 1949, graduate study was reactivated in 1956, and for the first time was offered during the regular year as well as during summer school. A Division of Graduate Studies was organized in 1956 as the administrative unit to replace the former Division of Summer Extension Study. Then, in October 1967, following a visitation by representatives of the Southern Association of Colleges and Schools, a new all-institution faculty committee, the Graduate Council, was organized. A Master of Arts in Nursing was added in 1976 and Communication Disorders in 1977. The degree of Master of Science in Biology, Communication Disorders and Nursing was approved for the 1978-79 academic year. The Master of Science in Management and the Master of Business Administration were approved for the 1982-83 academic year.

Location

Hampton University's beautiful campus is located along the banks of the Hampton River on Virginia's Peninsula, where the James and York rivers join. The region is closely associated with early American history. A large Kecoughtan community was once located in the vicinity of the campus and Jamestown, where the first group of captive Africans arrived in the New World, is only a few miles up the James River. The area is presently the hub of Norfolk - Newport News - Portsmouth military defense activity, provided by United States Navy, AirForce, and Army installations. Within a radius of 40 miles from the campus are the historic localities of Jamestown, Yorktown, and Williamsburg. The City of Hampton is America's oldest continuous English-speaking settlement. A center for East Coast conventions, tourism, and the Hampton Jazz Festival, the city supports public beaches, campgrounds, tennis courts, and golf courses in addition to its historic attractions. Hampton Roads, one of the world's largest natural harbors, offers the total spectrum of water sports to area residents, students, and visitors.

Buildings and Grounds

The Emancipation Oak, more than ninety-eight feet in diameter, is designated as one of the ten great trees in the world by the National Geographic Society. The live oak got its name because the Emancipation Proclamation was read to Hampton area residents there in 1863. Legend has it that the shade of the Oak served as the first classroom for a newly freed people seeking the blessings of education.

Five buildings on campus are registered as National Historic Landmarks. The Mansion House, built in 1828, is the only building on campus that predates the founding of the University. It serves as the official residence for the University president and his family. The Memorial Church, erected in 1886, features a 150-foot tower and an illuminated clock with chimes. Wigwam Building was originally built in 1878 to house American Indian male students, the first of whom were admitted in that same year. Today, the building is used as an educational resource center. Virginia-Cleveland Hall was erected in 1874 and is used as a women's dormitory. The student cafeteria is located on the first floor.

Academic Hall was erected in 1869 and was used for classrooms, the library, museum, and a male dormitory. Destroyed by fire in 1879, Academy Building was rebuilt and dedicated in 1881. Huntington Building (1903) is the home of the University Museum and Archives. Today, outstanding works of art and cultural objects are displayed to students and visitors in well-designed exhibits and other educational programs. Exceptionally strong in the areas of African, American Indian, and African-American art, Hampton's collection is known to be the largest and most important of its kind in the Southeast and one of America's unique and significant museum resources. Containing over 8 million manuscript materials and 50,000 photographs, the Archives is among the nation's most important resources for research on the history of African American and American Indian education.

Long recognized as an important cultural center in Hampton Roads, Ogden Hall (1918) has the reputation for having the best acoustics in the State of Virginia. It is used by the University for ceremonial occasions and cultural performances, as well as by many professional companies.

This picturesque campus, surrounded on three sides by water, comprises some 73 main buildings and 42 auxiliary structures spread out over 270 acres for easy access. The academic buildings contain state-of-the-art equipment accessible to students and faculty. Some of the recent additions to the physical plant include a new Research Center, a Multi-Use Facility, and a new softball field. The Research Center is an 18,000 square foot two-story building dedicated to scientific research. This building will serve as an interdisciplinary facility that will attract scientists from all over the world. The building houses office space for programs in physics, pharmacy, and a robotics laboratory as well as the Skin of Color Research Institute. The Multi-Use Facility, a 35,798 square foot building, houses offices and a women's residence hall. The first floor accommodates the Career Center, University Relations, Alumni Affairs, and the lobby of the women's residence hall. The

second and third floors house residence hall spaces that accommodate approximately 75 female students. This is a non-smoking facility with geothermal energy efficient heating, ventilation and air conditioning systems. In keeping with Hampton University's "Going Green" initiative, LEED Strategies were used in the construction of this facility. The new softball field, located on Emancipation Drive, meets all of the National Collegiate Athletic Association (NCAA) guidelines and regulations.

The University constructed a new Dining Facility that services approximately 3,400 on-campus students and consists of a main kitchen plus out-front cooking stations that includes stir-fry, grilled items, deli and pasta areas along with a central beverage and dessert station.

The Hampton University Proton Therapy Institute (HUPTI) located in Hampton, Virginia, and an integral part of Hampton University, is a 98,000 square foot cancer treatment facility specializing in proton therapy treatment delivery. HUPTI is the eighth proton facility in operation in the United States, and the first proton facility owned by an historically Black college or university. The Center has five treatment rooms and the first patient was seen in August 2010. HUPTI will be a catalyst for new scientific discoveries and increasingly accurate, advanced care for cancer patients.

Currently, Hampton University is in the process of building a Multidisciplinary Biomedical Research Center. The Multidisciplinary Biomedical Research Center will be a two-story 25,000 square foot building dedicated to biomedical research. The University's goal is to create a unique, interdisciplinary scientific environment.

University Libraries

The Libraries support the University's mission to promote learning and excellence in teaching by providing access to a wide array of information resources, services and facilities. Hampton University students, faculty, staff, researchers and scholars constitute the primary users of the University Libraries. The resources of the campus libraries are enhanced as a result of membership in several networks and consortia serving academic libraries. The Hampton University Library is a member of the Virginia Tidewater Consortium (VTC), the Virginia Independent College and University Library Association (VICULA), The Virginia Peninsula Literary Consortium (VPLC), the Historically Black Colleges and Universities (HBCU) Library Alliance and the the Virtual Library of Virginia (VIVA). The sharing of resources by the network of academic libraries is accomplished through the use of interlibrary loan, reciprocal borrowing, the shared cataloging of materials, online access to holdings, bibliographic databases and cooperative purchasing. Hampton University's libraries include the William R. and Norma B. Harvey Library (main) and satellite units in the Department of Architecture and the Department of Music and Performing Arts. The William R. and Norma B. Harvey Library was dedicated and opened officially on January 26, 1992. This five-story facility houses the main library collection, including over 400,000 volumes; over 62,000 bound periodicals and more than 640,000 microforms.

Two special collections add depth to the general holdings: (1) the selective U. S. Government documents depository, and (2) the George Foster Peabody Collection of more than 33,000 cataloged items by and about African Americans.

Users gain access to the library's holdings through the Hampton University Online Web-based Catalog (HUWebCat). Bibliographic records are available for adaptive cataloging through the Online Computer Library Center (OCLC) subscription service which provides cataloging services and products in support of information management and access. The library management system is the most recent version of the SIRSI SYMPHONY client based system of software and equipment.

Online access to citations, abstracts, full-text articles, electronic journals, e-books, government documents, dissertations, and other reference sources is provided by accessing the library's website. Students and faculty are able to access electronic resources from the website both on and off campus. The library maintains licensed agreements to databases, electronic journals and e-books. Library instruction and web tutorials are provided to help students and faculty use resources effectively.

In addition to the above, open shelves afford users the privilege of direct access to books, bound periodicals and audio-visual materials. The library has individual study areas on each floor and provides areas for group study and collaboration. Additionally, the library provides faculty carrels for university faculty and staff to utilize for research. Other areas of usage in the library include a 24-hour study area, a vending area, a multi-purpose meeting room, an electronic classroom, and a conference room. Wifi is available throughout the Harvey Library building for connectivity of electronic devices.

Regional Accreditation

Hampton University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award degrees at the associate's, baccalaureate, master's, education specialist and doctoral levels. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Hampton University. The Commission requests that it be contacted only if there is evidence that appears to support an institution's significant non-compliance with a requirement or standard.

Academic Rating and Membership

From humble origins, Hampton University has evolved into a prestigious, nationally acclaimed university that sets The Standard of Excellence in education. The University is a privately endowed, co-educational, nonsectarian institution of higher education with accreditation by the Department of Education of the Commonwealth of Virginia and holds membership in the Council of Graduate Schools, the Council of Independent Colleges in Virginia, and the American Council on Education. Its programs in architecture, business, chemistry, communicative sciences and disorders, computer science, computer, chemical and electrical engineering, journalism, music, nursing, pharmacy, physical therapy and teacher education are accredited by their respective

accrediting agencies. The architecture program is accredited by the National Architectural Accrediting Board. The business programs are accredited by the International Accreditation Council for Business Education (IACBE). The chemistry program is approved by the Committee on Professional Training of the American Chemical Society. The program in communicative sciences and disorders is accredited at the graduate level by the American Speech - Language - Hearing Association. The undergraduate computer science program is accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700. The computer, chemical and electrical engineering programs are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700. The Scripps Howard School of Journalism and Communications maintains accreditation for the undergraduate programs in Journalism and Strategic Communication from the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC), Stauffer-Flint Hall, 1435 Jayhawk Blvd, Lawrence, KS 66045-7575 – telephone (785) 864-3973. The music programs are accredited by the National Association of Schools of Music. The baccalaureate programs in nursing have full approval by the Virginia State Board of Nursing; the baccalaureate degree programs in nursing and the master's degree programs in nursing at Hampton University are accredited by the Commission on Collegiate Nursing Education, 655 K Street NW, Suite 750, Washington, DC 20001, (202) 887-6791. The School of Nursing is also an agency member of the National League for Nursing and the American Association of Colleges of Nursing. Schools of Pharmacy are accredited by the Accreditation Council for Pharmacy Education. The physical therapy program is accredited by the Commission on Accreditation in Physical Therapy Education. The teacher education programs are accredited by the Council for the Accreditation of Educator Preparation formally known as the National Council for Accreditation of Teacher Preparation.

Academic Organization

Hampton Institute (The Undergraduate College), Hampton U Online and the Graduate College are the three colleges that comprise Hampton University. Information and policies that apply to all four colleges are found in the General Information section. Items that apply specifically to under- graduate and professional degree programs are provided in the Undergraduate College section. The Honors College implements honors programs in support of the Undergraduate College. Summer Session implements academic programs for Hampton University during the time period between Commencement and the beginning of the Fall Semester for all academic units, with the exception of Hampton U Online. The Undergraduate College is comprised of seven Schools: Business, Liberal Arts and Education, Engineering and Technology, Nursing, Pharmacy, Science, and the Scripps Howard School of Journalism and Communications. Online degree programs are administered through the Hampton U Online virtual campus.

Degrees and Programs

Hampton University offers major programs of study leading to the Bachelor of Arts (B.A.), and Bachelor of Science (B.S.), Master of Architecture (M.Arch), Master of Arts (M.A.), Master of Business Administration (M.B.A.), Master of Health Administration (M.H.A.) Master of Science (M.S.), Master in Teaching (M.T.), Specialist in Education (Ed.S.), Doctor of Nursing Practice (D.N.P.), Doctor of Pharmacy (Pharm.D.), Doctor of Philosophy in Business Administration (Ph.D.) and Doctor of Physical Therapy (D.P.T.) degrees. A chart of the undergraduate and graduate degree programs by College and School/ Academic Unit is printed below. Associate's degree programs are available through Hampton U Online. Degree program requirements are presented with their respective school, department or program description.

Hampton Institute — The Undergraduate College

Unit/Program	Degree	Major (Emphasis)
James T. George School of Business		
	Bachelor of Science	Accounting
		Business Administration (5-Yr MBA)
		*Economics
		*Entrepreneurship
		*Finance
		*Management (General Management)
		*Marketing
School of Engineering and Technology		
	Master of Architecture	*Architecture (Adaptation to Sea Level Rise)
	Bachelor of Science	*Aviation (Aviation Management-Airport Administration, Aviation Management-Air Traffic Control, Flight Education)
		Chemical Engineering
		*Computer Engineering (Cyber Physical Systems Security)
		Electrical Engineering

Scripps Howard School of Journalism and Communications

Bachelor of Arts	*Journalism *Strategic Communication

School of Liberal Arts and Education

Bachelor of Arts	*English & Foreign Languages (English Arts, Creative Writing, Film Studies, English Education 6-12; Spanish) *History Interdisciplinary Studies for Elementary Education [PK-6] International Studies (International Relations, Latin American and Caribbean Studies) *Liberal Studies *Music (Music Performance [Instrumental, Organ, Piano, String, Voice], Music Education [PK-12]) *Political Science *Psychology *Sociology (Social Inequality, International Studies, Social Policy) *Theatre Arts (Technical Theatre, Theory and Performance) AROTC
Bachelor of Science	*Criminal Justice and Criminology Cyber Security Kinesiology Music Recording Technology/Music Audio Production Sport Management ** Aquatics
Master of Science	Sports Administration
Master in Teaching	Endorsements in Biology [6-12] English [6-12] Chemistry [6-12] Mathematics [6-12] Music [PK -12]

School of Nursing

Bachelor of Science	Traditional BS LPN to BS RN to BS Health Sciences (Community Health Promotion, Policy & Administration)

School of Pharmacy

N/A	Pre-Professional Pharmacy
Bachelor of Science	Pharmaceutical Science
Doctor of Pharmacy	Professional Pharmacy

ROTC Programs

N/A	**Naval Military Leadership Commission - U.S. Army 2nd Lieutenant U.S. Army Reserves Commission - U.S. Navy Ensign, U.S. Naval Reserves Commission - U.S. Navy Ensign, U.S. Naval Nurse Corps Commission - U.S. Marine Corps 2nd Lieutenant, U.S. Marine Corps Reserves

School of Science		
	Bachelor of Arts	Communicative Sciences and Disorders
	Bachelor of Science	*Biochemistry *Biology (Pre-med, Integrative Biology, Cellular and Molecular Biology, Biology Education [6-12]) *Chemistry (Traditional, Forensics) *Computer Information Systems *Computer Science *CyberSecurity–Computer Science *Marine Science *Mathematics (Mathematics, Mathematics Education [6-12]) *Physics **Atmospheric and Planetary Sciences ** Nanoscience
Leadership Institute		N/A **Leadership Studies

Hampton University Online

	Certificate Programs	Entrepreneurship Human Resource Management Paralegal Studies
	Degree	**Major (Emphasis)**
	Associate of Arts	Biblical Studies Church Administration Religious Studies
	Associate of Science	Business Management
	Bachelor of Arts	General Studies Paralegal Studies Religious Studies Religious Studies Online
	Bachelor of Science	Aviation Management (Airport Administration) Business Management Criminal Justice Systems Organization and Management Systems Organization and Management (Human Resource Management) Nursing (Accelerated RN to BS) Public Safety Administration (Criminal Justice, Emergency and Disaster Management, Emergency Medical Systems Management, Fire Administration Systems Organization and Management)
	Master of Arts	Counseling (General Counseling) Educational Leadership (PK-12, Higher Education) Religious Studies (Theological Studies, Worship Studies) Master of Divinity Religious Studies (Pastoral Leadership, Executive Ministry)

Master of Science	Cyber Security Program
	Sport Administration (Organizational Behavior and Sport Business Leadership, Intercollegiate Athletics, International Sport)
	Education Specialist
	Counseling
Doctor of Philosophy	Business Administration
	Counselor Education and Supervision
	Educational Management (PK-12, Higher Education, STEM, Special Education)
	Nursing (Family and Family Related, Nurse Educator)

The Graduate College

Degree	**Major (Emphasis)**
Master of Arts	Biology (Biology, Biology/Environmental Science)
	Communicative Sciences and Disorders Counseling (Addiction, College Student Development/Student Affairs, Community Mental Health, Community Mental Health–School, Community Mental Health–Pastoral)
	Educational Leadership (PK-12, Higher Education
Master of Business	Administration Business Administration (2yr/5yr)
Master of Science	Applied Mathematics (Statistics & Probability, Computational, Nonlinear Science)
	Atmospheric Science
	Biology (Biology, Biology/Environmental Science)
	Chemistry
	Computer Science
	Cyber Security [online]
	Medical Science
	Nursing (Administration & Education, Family Nurse Practitioner, Women's Health Nursing Practitioner)
	Physics (Medical, Nuclear, and Optical)
	Planetary Science
	Sport Administration (Organizational Behavior and Sport Business Leadership, Intercollegiate Athletics, International Sport)
Master in Teaching:	Endorsements in Biology [6-12]
	Chemistry [6-12]
	English [6-12]
	Mathematics [6-12] Music [PK-12]
	Specialist in Education
	Counseling [hybrid online]
Doctor of Philosophy	Atmospheric Science
	Business Administration [Online]
	Counselor Education and Supervision [online]
	Educational Management [Online]
	Nursing (Family and Family Related, Nurse Educator) [online]
	Physics (Medical, Nuclear, and Optical)
	Planetary Science
Doctor of Physical Therapy	Physical Therapy

Professional Programs

	Degree	Major (Emphasis)
Pharmacy	Doctor of Pharmacy	Pharmacy
Architecture	Master of Architecture	Architecture

** Students may complete a minor in these areas.*
*** Students may complete as a minor only, but not as a major. N/A Degrees cannot be earned in these areas*

Online programs are offered through the unit listed above in collaboration with Hampton U Online .

Summer Session

The Summer Session provides a variety of learning activities for students. The services of the Summer Session are developed and promoted in terms of the needs of the various groups that constitute the Hampton University student body. Therefore, services will vary widely based upon individual and group needs of the following clientele:

- Individuals participating in teacher-in-service activities.
- Individuals studying toward the master's or doctoral degree.
- Individuals participating in special programs, courses and workshops.
- Individuals participating in special music seminars ranging from jazz to church music and from performance to teaching methods.
- Individuals qualifying for elementary and secondary teaching certificates.
- Individuals matriculating for the bachelor's degree and need one or more courses to graduate.
- Regular undergraduate students taking courses to make up deficiencies or accelerate their progress for the bachelor's degree.
- High school graduates wanting to expedite the transition into college or get a head start.
- Individuals studying toward degrees in specialized areas of nursing, communicative sciences and disorders, special education, business, and other disciplines.
- Individuals who are visitors from other colleges and universities.
- Individuals seeking enhancement or academic credit for international experiences.

Fees and Expenses 2020-2021

In determining the cost of an education at Hampton University, the administration has maintained the large items of expense—tuition, meals, and room—at the lowest possible figures consistent with satisfactory service. In estimating the total cost of a college year at Hampton, the student should not forget to include amounts for books and supplies, personal items, clothing, travel, dental and medical expenses other than clinical and infirmary services provided by the University, and charges for uniforms and equipment, which vary according to curriculum chosen.

The University reserves the right to increase charges for tuition and living expenses if costs of materials and services make it necessary. The statement of expenses varies by campus and/or student level and is provided in the Fees and Expenses section for each College. The tuition rate structure is available at http://www.hamptonu.edu/administration/businessoffice/ tuition_fees.htm.

Statement of Expenses for School Year 2020-2021

Applicable to all Hampton University Undergraduate and Pre-Professional Pharmacy Students (Main Campus Only)

	On-Campus (includes room and meals)	Off-Campus
New Students		
Application Fee (Non-refundable)	$50.00	$50.00
Matriculation Fee (Non-refundable)	100.00	100.00
Total for Official Acceptance	$150.00	$150.00
All Students		
Tuition (10 to 17 hrs.)	$24,233.00	$24,233.00
*Room Charge	3,377.00	-
last day **Board Charge (Meal Plan-Option 1)	3,116.00	-
Comprehensive Fee	2,742.00	2,742.00
Total Cost for School Year	$33,468.00	$26,975.00

**Additional charge will be made yearly for the following residence halls: DuBois Hall, CEC, Modulars, McGrew Towers, White Hall, Holmes Hall, Multi-Use Facility, Holy Retreat Center or a single room.*

***Cost will vary according to the meal plan chosen.*

Statement of Expenses for School Year 2020-2021

Applicable to Professional Pharmacy Students

	On-Campus (includes room and meals)	Off-Campus
Professional - Lower Level		
First & Second Professional Year:		
Tuition (10-17 hours)	$32,164.00	$32,164.00
Technology Fee	2,600.00	2,600.00
*Room Charge	3,377.00	-
**Board Charge (Meal Plan-Option 1)	3,116.00	-
Comprehensive Fee	2,824.00	2,824.00
Total Cost for School Year	$44,081.00	$37,588.00

**Additional charge will be made yearly for the following residence halls: DuBois Hall, CEC, Modulars, McGrew Towers, White Hall, Holmes Hall, Multi -Use Facility, VC Suites, James Hall Suites, Holy Retreat Center or a single room.*

***Cost will vary according to the meal plan chosen.*

Professional - Upper Level		
Third & Fourth Professional Year:		
Tuition	$35,382.00	$35,382.00
Technology Fee	2,600.00	2,600.00
*Room Charge	3,377.00	-
**Board Charge (Meal Plan-Option 1)	3,116.00	-
Comprehensive Fee	2,824.00	2,824.00
Total Cost for School Year	$47,299.00	$40,806.00

Statement of Expenses for School Year 2020-2021 – Hampton University Online

Undergraduate	
Tuition	$300.00 per semester hour
Technology Fee:	$50.00 per session
Registration Fee:	$100.00 per session
Application Fee:	$50.00
Late Registration Fee:	$150.00
Graduate	
Tuition	$695.00 per semester hour
Technology Fee:	$50.00 per session
Registration Fee:	$100.00 per session
Application Fee:	$50.00
Late Registration Fee:	$150.00
Other Fees	
Transcript Request Fee:	$10.00
Writing Competency Examination:	$25.00
Comprehensive Examinations:	$50.00
Evaluation of Academic Records for Transfer Credit Fee:	$50.00
Credit for Experience Portfolio Evaluation Fee:	$100.00

Statement of Expenses for School Year 2020-2021 – Graduate College

New Students

Application Fee (Non-refundable) $50.00

Applicable to All Graduate Students – (Main Campus) Remittances should be sent by Cashier's Check, Money Order, MasterCard, Visa, Discover or American Express made payable to Hampton University and addressed to the Office of the Treasurer, Hampton University, Hampton, VA 23668. Online Payments may be made by using our website at www.hamptonu.edu, click on Current Student and then select Student Account Payment. All payments should be clearly marked as to their purpose and for whose account the money is intended. Money mailed for personal uses, books, supplies, etc. should be made payable to the student and mailed directly to the student. **No personal checks will be accepted.**

Graduate students will pay the following fees: application fee, registration fee and tuition each semester. Graduate students will be required to pay the comprehensive fee and technology fee each semester. The charge for University graduate housing will be payable at the beginning of each month. Resident graduate students may receive their meals in the University cafeteria by purchasing a meal ticket. The University Food Court is open daily, and offers breakfast, lunch and dinner menus.

Comprehensive Fee:	$25.00
Registration Fee:	$10.00
Graduate Tuition	
(Less than 10 Hours)/per hour	$665.00
(10 – 17 Hours)/per semester	$13,099.00
Graduate Tuition Rate per Hour	
(In excess of 17 hours)	$440.00
Technology Fee	$250.00

*Pending Final Approval

Statement of Expenses for School Year 2020-2021 –College of Virginia Beach

Applicable to Virginia Beach Campus Students

Tuition and Fees (per Semester) Undergraduate	**In-State**	**Out-of-State**
Tuition per credit hour, up to eleven hrs	$278.00	$730.00
Tuition (12 to 17 credit hours)	5,826.00	12,688.00
Tuition (Each credit hour above 17)	265.00	593.00
Comprehensive Fee (Undergraduate) per		
semester hour, up to eleven hours	42.00	42.00
semester (over 11 credit hours)	500.00	500.00
Late Fee	400.00	400.00
Non Pre-Registration Fee	100.00	100.00
Nursing Fee (Per Term)	400.00	400.00

Graduate	**School Year 2020-2021**	
Tuition per credit hour, up to nine hours	$400.00	$921.00
Tuition (12 to 17 credit hours)	7,438.00	15,914.00
Tuition (Each credit hour above 17)	265.00	593.00
Comprehensive Fee (Graduate) per		
semester hour, up to eleven hours	42.00	42.00
semester (over 11 credit hours)	500.00	500.00
Late Fee	400.00	400.00
Non Pre-Registration Fee	100.00	100.00
Nursing Fee (Per Term)	400.00	400.00

Payment of Fees:

The total cost for the 2020-2021 school year, and the dates payments are due, are outlined on the website http://www.hamptonu.edu/administration/businessoffice/tuition_fees.htm. Students and parents should pay special attention to the description of these items. Please note that the APPLICATION FEE and MATRICULATION FEE are payable only once and are NOT REFUNDABLE. The ADVANCE PAYMENT is payable annually and is deducted from the total cost for the first semester. In cases where parents, guardians, or students are unable to pay the total amount of fees due at the beginning of each semester, a deferred schedule of payments is available for a nonrefundable application fee of $50.00 per year. Application for this deferred payment plan must be received by the University on or before July 15, 2020, along with the initial payment. Financial aid cannot be used as the initial payment of the Special Deferred Payment Plan for either semester.

Financial Aid:

Students who receive financial aid from the University may deduct one-half of the total aid received from the expenses each semester. All other scholarships, loans and gifts will be applied to the student's account when received by the University.

Explanation of Fees

Application Fee:

The incoming applicant is required to send a $50.00 **non refundable Application Fee** with his or her application for admission. This fee is a service charge covering clerical and administrative costs of processing the application and is non-refundable. Students who have been previously enrolled are not required to pay this Application Fee. Payment of the Application Fee is not a guarantee of admission.

Matriculation Fee:

This $100.00 non refundable fee is due within 35 days after receipt of Notice of Admission. This fee is payable only once by all freshmen, transfer, and any student entering Hampton University for the first time. The Matriculation Fee should be submitted with the payment for the Advance Deposit Fee for New Students.

Advance Payment Fee for New Students:

Prospective students whose applications have been approved will receive a Notice of Admission. Within 35 days of receipt of the Notice of Admission, all prospective students must send to the Treasurer's Office a payment of (a) $425.00 if accepted as an off-campus student or (b) $500.00 if accepted as an on-campus student. This payment should be submitted together with the $100 Matriculation Fee. Payment should not be mailed prior to receiving Notice of Admission. Payment of the Advance Payment does not guarantee the assignment of a room, but it must accompany the application for assignment. Students who change their housing decision from on-campus to off-campus will forfeit $75.00 of the Advance Payment.

All continuing students are required to pay a $400 Advance Tuition Payment for the upcoming academic year. For the Fall 2020 semester, the payment is due by 4:00 p.m. March 16, 2020. Partial payments will not be accepted. This amount represents an advance payment of fees for the 2020-2021 school year and confirms the student's intent to return to the University. Should students decide no to attend, they must request a refund of $200 in writing by May 31, 2020. The remaining $200 of the advance payment will be forfeited. All requests for refunds made after 4:00 p.m. on May 31, 2020 will be refused.

Comprehensive Fee:

A Comprehensive Fee of $2,742.00 for the academic year is required of all regular undergraduate students. This fee supports the Student Center, Health Center, Student Activities, and course laboratories. Please note that this fee does not replace the departmental fee.

Technology Fee:

A Technology Fee of $125.00 per semester is required for all undergraduate, graduate, and Hampton U Online students. This fee supports the wireless internet zones throughout campus.

Rooms:

The cost for on-campus housing for the 2020-2021 school year is $3,377.00. (Spring semester only) This charge includes bed linens and blankets. The $3,377.00 is due in full prior to the start of the semester. **This fee may vary depending on a student's housing assignment.** The cost for single occupancy will be $3,977.00 for the semester. If a student moves into a room for at least one day during the first month of the semester, the total charge for the room as indicated above must be paid. If a student moves into a room after the first month, the charge for the room will be prorated on a full monthly basis, regardless of the day of occupancy. An additional charge will be made each semester for the following residence halls: **DuBois, $200.00; Modular Dorms, $350.00; CEC, $200.00/$400.00; McGrew Towers, $350.00; White, $350.00; Holmes, $350.00; Multi-Use Facility, $450.00; Virginia Cleveland Suite, $450.00; James Hall Suites, $450.00; Holy Retreat Center, $500.00; Orchard Road, $600.00. The charge for a single occupancy room is $1,200.00.** This charge is not included in the basic tuition fees listed. All on-campus students are required to sign a housing contract with the Office of Residence Life & Housing.

Residence Halls officially open and close on the dates stated in the University Calendar. Residence fees and meal charges cover only the periods when the residence halls are officially open. Students may not occupy residence halls at times when the halls are closed. During vacation and holiday periods, special housing may be secured by written permission secured in advance from the Director of Residence Life & Housing.. Rent will be charged to students for such special housing.

Residence Hall Security Deposit:

At the time of initial enrollment, each student who is assigned a room in a residence hall will be charged a Residence Hall Security Deposit of $100.00. This fee must be paid by November 1 of each school year. Upon graduation or leaving the college for other reasons, the fee will be returned to the student or applied toward any outstanding balance. During residency the cost of damages will be deducted from the deposit, and the student must pay the sufficient amount to bring the deposit up to the level of $100.

Meals:

Meals will be served cafeteria-style in the University Cafeteria. There are three Meal Options as listed below.

1. The students will be charged $6,232.00 for 19 meals a week. This charge for meals will be billed to each on-campus student on a semester basis of $3,116.00. With the Option 1 meal plan the student will receive $150.00 Gourmet Dollars per year; $75.00 for the Fall 2020 semester, $75.00 for the Spring 2021 semester.

2. The students will be charged $6,486.00 for 15 meals a week. This charge for meals will be billed to each on-campus student on a semester basis of $3,243.00. With the Option 2 meal plan the student will receive $350.00 Gourmet Dollars per year; $175.00 for the Fall 2020 semester, $175.00 for the Spring 2021 semester.

3. This plan provides Off-campus students the option of a meal plan. Students will be charged $2,944.00 for 5 meals a week. This charge for meals will be made on a semester basis of $1,472.00 for the Fall 2020 semester and $1,472.00 for Spring 2021 semester. This plan does not come with gourmet dollars.

4. This plan provides Off-campus students the option of a meal plan. Students will be charged $4,118.00 for 7 meals a week. This charge for meals will be made on a semester basis of $2,059.00 for the Fall 2020 semester and $2059.00 for the Spring 2021 semester. This plan does not come with gourmet dollars.

Non-Pre-Registration:

A $100.00 Non-Pre-registration Fee will be charged, per semester, to all continuing students who fail to pre-register during the designated dates. Cancellation of schedules is considered as not pre-registering. The Non-Pre-registration Fee must be paid at registration.

Late Registration:

A $400.00 late registration fee will be charged, per semester, to all students who fail to complete registration on the designated date. The Late Registration Fee must be paid at registration.

Tuition:

Regular undergraduate students taking 10 or more semester hours will be charged the regular tuition fee of $24,233.00 per year. On a semester basis, $11,134.00 is due and payable at the beginning of the first semester, and $13,099.00 is due and payable at the beginning of the second semester. Students entering for the first time in the second semester will pay $13,099.00 for tuition, which is one-half of the total amount charged for one school year. Students taking courses in excess of 17 semester hours will be charged for the excess hours at the rate of $440.00 per semester hour. Regular students taking fewer than 10 semester hours will be charged at the rate of $665.00 per semester hour. The tuition is non-refundable after the deadline set forth in the refund schedule.

The tuition charge will be based on courses of record for which a student is registered on the for adding courses. After this date, there will be no cancellations of tuition charges for students still enrolled.

Grading Administration Fee:

If the student is not enrolled in a Hampton University course during the current semester, the student must register for the zero credit, one-hour tuition course, CRT 000-01, and pay a fee of $150.00.

Departmental Fee:

Departmental fees are required in a number of areas, as described in the University Catalog. These fees are payable upon receipt of the bill for such items. Students and parents are advised to read the catalog regarding fees in their specific area.

Books and Supplies:

All students are expected to purchase the textbooks required for the courses in which they are enrolled. Depending upon the courses selected, the expenses for books will vary from $500.00 to about $1,000.00 per semester.

Uniforms:

Students enrolled in the Army and Navy ROTC are furnished uniforms on loan by the appropriate military branch. Losses and shortages occurring during the training period will be handled within the guidelines of the appropriate ROTC unit.

Students majoring in physical education and nursing are required to purchase appropriate uniforms. The cost of these uniforms will vary.

Special Examination Fee:

The application fee for the administration of each special examination will be $10.00. If the examination is taken, an additional fee will be due as follows:

1. If a student is currently enrolled full-time, the total semester hours will be added to the total hours taken during the current semester. Credit hours exceeding 17 will be charged at the rate of $440.00 per hour.
2. If a student is currently enrolled part-time (taking less than 10 semester hours), the charge will be equal to the number of semester hours of credit times the individual hourly tuition rate.
3. If the student is not currently enrolled, the charge will be a special examination fee of $665.00 plus the number of semester hours of credit times the individual hourly tuition rate of $665.00 per hour.

Auditor's Fee:

The privilege of auditing courses will be extended to any student in good standing, with the consent of the Provost and the chairperson of the department concerned. Persons desiring to audit courses are required to register and pay a fee of $665.00 per course, plus $10 registration fee.

Student Group Insurance:

All students enrolled in full time course of study leading to a degree are required to provide proof of comparable coverage in order to waive participation in the plan. Students who chose to waive must certify proof of insurance by logging on to: www.gallagherstudent.com/hamptonu and completing the online process as instructed no later than September 6, 2020. Students who do not waive electronically by this deadline will be automatically enrolled in, and billed for, the plan. The plan cost is $1,244.00 and the charges will be added to their Fall fee account statement.

Graduate Group Insurance:

Graduate students must apply individually for student insurance. Insurance is not automatic, and application does not guarantee approval. Detailed information may be secured by logging on to: www.gallagherstudent.com/hamptonu.

Thesis Registration Fee:

Students who have completed all requirements with the exception of the thesis or thesis-based projects and have previously registered for EDU 681 (Thesis) or a comparable course in the student's major are required to register each semester for EDU 700 (Thesis Continuation) or a comparable course in the student's major until requirements have been completed. The fee is equivalent to one (1) semester hour of tuition.

Transcript Fee:

A charge of $ 10.00 is applied for each transcript.

Graduation Fees:

The following charges will be made for graduation:

Associate's degree	$50.00
Associate's academic regalia	$53.00
Bachelor's degree	$50.00
Bachelor's academic regalia	$53.00
Master's degree	$50.00
Master's academic regalia	$59.00
Doctoral Degree	$50.00
Doctoral academic regalia	$71.00
Master's Thesis binding	$75.00
Doctoral Dissertation binding	$85.00
Duplicate diploma fee	$75.00

All graduation fees are due one month before the date of graduation.

Withdrawals:

Refund of Tuition, Room and Board Fees: Refund for students withdrawing from the University for any reason will be made in accordance with the scale listed below. The application, matriculation, and the advance deposit fees are Non-Refundable Fees.

NOTE: The official end of the Add/Drop period is also the last day for any financial adjustments for students not withdrawing from the University. This refund schedule is subject to change due to federal regulations or changes in University policy.

Days	Refund Percentage
1-7	100
8-14	92
15-21	84
22-28	76
29-35	68
36-42	60
43-over	0

Student Financial Aid

Student Financial Aid Programs at Hampton University are designed to assist eligible students in accordance with federal student aid regulations, University policies and program guidelines, to include but not limited to the State Council of Higher Education (SCHEV) for domiciled d residents of Virginia. The primary purpose of student aid programs is to assist students with their overall cost of attendance (i.e., tuition and room and board, books and supplies, student fees, personal expenses and transportation). Parents of dependent students, especially, is/are expected to contribute to the overall costs of education. It is important to note here that, all financial aid applicants must meet the program eligibility requirements, to include the renewal criteria, each successive year, irrespective of the source of aid, Visit the website http:// www.hamptonu.edu/studentservices/financial aid for additional, or updated, information.

Application Process

The Free Application for Federal Student Aid (FAFSA) is the primary application for financial aid at Hampton University. All students applying for aid and who are receiving University scholarships must complete the FAFSA and submit electronically to the Federal Processor. It is recommended that students complete the application online at www.fafsa.ed.gov.

When to Apply

Students should apply after October 1st of each year preceding the award year; Hampton University school code is 003714. The priority consideration date (February 15th) which is, primarily, for Pell eligible and exceptionally needed, as determined by the FAFSA/ Student Aid Report (SAR). Moreover, this student population could qualify for additional funding from the campus based federal aid (i.e., SEOG & Work-Study) programs; awards are made on a first-come, first served basis. To qualify for federal campus based aid, the Financial Aid Office must be in receipt of your Student Aid Report (SAR) report received from the Department of Education.

The SAR must have a valid Expected Family Contribution (EFC); received in the Financial Aid Office, on or before February 15th . SARs received after this date will be reviewed and awarded in order received and on the availability of funds. The FAFSA and SAR are year specific, financial aid is awarded for one year at a time. Given the limited availability of funds for the federal campus based programs, and the number of eligible students who may otherwise meet the priority consideration date of February 15, the financial aid office cannot guarantee additional assistance.

General Eligibility Criteria for Assistance via Title IV Federal Aid Programs

The applicant must:

- be a U.S. citizen or eligible non-citizen;
- have a valid Social Security number (with the exception of students from the Republic of the Marshall Islands, Federated States of Micronesia or the Republic of Palau);
- be enrolled or accepted for enrollment as a regular student in an eligible degree or certificate program;
- be enrolled at least half-time to be eligible for Direct Loan fund;
- sign a Statement of Educational Purpose/certification statement on refunds and default.
- be register with Selective Service, if you're a male (you must register between the ages of 18-25);
- maintain financial aid standards of satisfactory academic progress to receive federal assistance, as defined by the Financial Aid Office

Students who receive academic dismissal letters/notices through the Office of the Provost, who are subsequently re-admitted to the University, cannot receive federal financial aid, for the following enrollment term, until they obtain a cumulative grade point average of (2.0, other relevant conditions may apply, as stipulated in the Financial Aid Office's Satisfactory Academic Progress Policy.

Signed the certification statement on the Free Application for Federal Student Aid (FAFSA) stating that: you are not in default on a Federal Student Loan and do not owe money on a Federal student grant and you will use the Federal student aid only for educational purposes; and show you're qualified to obtain a college education by having a high school diploma or a recognized equivalent such as a General Educational Development (GED) Certificate; completing a high school education in a homeschool setting approved under state law (or-if state law does not require a homeschooled student to obtain a completion credential-completing a high school education in a homeschooled setting that qualifies as an exemption from compulsory attendance requirements under state law)

- complete and return all requests for verification (via U.S. Post Office) and/or additional information as requested by the financial aid office
- must not be in default or owe a repayment on a government grant
- must meet all program requirements - as defined by the U.S. Department of Education
- must not have exceeded the federal funding limits, as defined by the U.S. Department of Education

Award Process

Each student's file is reviewed and analyzed on an individual basis to determine financial need. Financial need is the difference between the "cost of education" (as determined by the financial aid office) and the "expected family contribution (EFC)." Financial aid awards are made on the basis of financial need determined by the Free Application for Federal Student Aid (FAFSA). Undergraduate

students who have the greatest demonstrated need, and who meet the priority filing date (February 15), may be eligible for additional assistance (as noted above) from the federal campus-based programs (i.e. SEOG, and Work-Study) based on the availability funds.

Criteria for awards are established by the federal and state agencies administering the programs. Criteria for institutional aid programs are established by the University and regulated by the Financial Aid Office. In sum, financial aid awards are packaged based on the concept of cost of attendance minus the expected family (as determined by the FAFSA) and, on the availability of funds as follows: scholarships and grants first, work-study second, and loans third. Students must access their financial awards online, using their campus log-on, i.e., ID and password, issued by the Registrar's office.

Satisfactory Academic Progress Policy

Introduction

Federal guidelines for student financial assistance eligibility require that standards of satisfactory **academic** progress **(SAP)** be equal or stricter than the standards required of students who are not receiving financial assistance. **Generally all periods of the student's enrollment count when judging SAP, even periods in which the student did not receive federal funds.** Hampton University is required by federal regulations to institute standards of satisfactory progress for students receiving Title IV assistance. Hampton University has adopted financial aid standards that differentiate between students receiving assistance and those students not receiving assistance.

What is Satisfactory Academic Progress (SAP)? The qualitative (grade point average) and quantitative (time limit) measure of a student's progress toward completing a program of study.

Why Must Schools Maintain and Enforce Satisfactory Academic Progress Standards? In order to comply with the laws of the Higher Education Act (HEA 484) and Code of Federal Regulations (34 CFR). In sum, in order to receive any grant and/or loan assistance under this title, a student must meet satisfactory academic progress standards imposed by the Financial Aid Office. A student is maintaining satisfactory academic progress at the University if they meet the minimum guidelines at the end of each academic year, or its equivalent.

SAP Quantitative Standard

All students receiving Title IV financial assistance will be required to complete their degree-seeking program within the following maximum time frames:

Undergraduate

	Attempted Hours	Minimum No. of Earned Credit Hours Per Semester
Full-time	12 hours or more	10
3/4 time	9-11 hours	9
Part-time	6-8 hours	6
Less than 1/2	5 and below	Must complete whatever attempted

Academic Year:Full-time enrollment for two semesters equals one academic year. The academic year is prorated for less-than full-time students. Hampton University uses the number of credit hours a student is enrolled in at the end of the first week of classes to determine full-time or less-than full-time enrollment status for evaluating academic progress.

Academic Work Evaluated: Hampton University's Satisfactory Academic Progress policy applies to all academic work taken, irrespective if the student received financial aid in every term.

SAP Qualitative Requirements

Below you will find the Cumulative Grade Point average requirements for undergraduate students as they progress.

Academic Years Attended	No. of Semesters	Cum. Grade Point Average (CGPA)
1	2	2.0
2	4	2.0
3	6	2.0

Maximum Time Frame

The Hampton University Catalog sets forth degree requirements on a four year completion basis; approximately 40 percent of students (nationally) require five years for completion. **Federal regulations stipulate that undergraduate students must complete their academic programs within 150 percent of the established program length. For example: Your program requires 120 hours to complete, to determine your maximum time frame the following computation is used. 120 hours x 150% = 180 hours.**

NOTE: Hours earned by Advanced Placement or CLEP are considered toward meeting the semester hour requirement only for a student's first academic year.

Full-time (12 hours or more per semester) students must earn a minimum of 20 credits per academic year to receive financial assistance. Less than full-time students will be extended on a pro rata basis not to exceed the equivalent of 12 semesters of full-time enrollment.

Three-quarter time (9-11 hours per semester) students must earn a minimum of 18 credits per academic year to receive financial assistance.

Half-time (6-8 hours per semester) students must earn a minimum of 12 credits per academic year to to receive financial assistance.

Time Limit: Students will be allowed six academic years in which to complete an undergraduate degree. The number of credit hours in which the student is enrolled on the day following the published last day to add/drop a class will be used as the official enrollment status for the purpose of financial assistance awarding; full-time status is 12 or more hours. If a student withdraws from classes after the date cited above and reduces their enrollment below the awarded status (the number of hours recorded as of the add/drop date), the student will not be meeting the minimum number of hours to be earned in one academic year. The deficit hours must be made up in the Spring or Summer semesters immediately

following the deficient term otherwise, the student may be ineligible for further financial assistance.

(**Rationale: Use** of the last day to add/drop as the cut-off date will allow the Office of Financial Aid to standardize the evaluation point in the semester. It will also provide students a definitive answer to the question, "How will my financial aid be affected if I drop a course?" Awards will be adjusted based on the enrollment status at that time).

An **Incomplete (I) grade** indicates that a student has not completed all coursework required for a grade; students are allowed up to one academic year to complete the work. An **Incomplete** will not count as hours passed until a final grade is determined.

Repeated Courses: Repeated courses **are NOT counted towards your meeting satisfactory academic progress** for number of semester hours earned.

Failure to meet the minimum academic requirements given above makes the student ineligible to receive financial assistance.

A student who is suspended for a given semester is not eligible to receive any financial assistance until the student has been reinstated to a satisfactory academic progress level.

Academically Dismissed Students

Students who are allowed to return to the University **via the Readmit process cannot receive Federal Student Aid until they demonstrate that they are capable of earning a cumulative minimum semester GPA of 2.0 or better. Otherwise, the student can apply for non-federal educational loan assistance. The Office of Financial Aid will only permit a total of two appeals for reinstatement for students who have been academically dismissed. Students who become academically dismissed after the Spring semester cannot receive Federal Student Aid for the Summer session.**

NOTE: Part-time students who have been academically dismissed and are readmitted, must STILL attend one-academic semester (i.e. fall or spring) without federal student assistance, and must apply for reinstatement, and must have attained the required cumulative GPA (2.0), in order to qualify for federal assistance. The student must also complete all hours attempted and earn a minimum semester grade point average of 2.0 each semester thereafter, in order to remain eligible in all financial aid programs.

Transfer Students

The amount of time given a transfer student to complete his/her degree program is prorated based on the number of credit hours that are transferred to Hampton University. For example, if you transferred 50 credits toward your degree program, we would prorate, using the following formula: 50/120 (required cumulative credit hours that must be earned by the end of each of the six academic years) x 6 years equal 2.5 years, irrespective if you receive financial aid during any of those academic term(s) and /or semesters. The total number of transfer credits plus your hours attempted and earned here at the University used measure academic progress.

For federal aid eligibility, the student cannot attempt more than 180 credits, including transfer credits. Insofar as qualitative standard applies, your transfer credits cumulative grade point average is not counted toward your Hampton University cumulative grade point average, only those credits earned here at Hampton University are counted.

Readmitted Students will be reviewed on previous academic records in order to determine eligibility for financial assistance, irrespective of the time elapsed since the student's last attendance, or program of study, and/or degree program. In some cases, readmitted may not be eligible to receive federal student assistance. The financial aid office notifies each student -especially - if they have been academically dismissed, irrespective of the time elapsed.

Non-Credit Remedial Courses are eligible for Title IV aid, only if the student has been accepted into an eligible program of study. No more than one year's worth of remedial coursework may be counted in determining a student's enrollment status.

Change in Major

For students who have changed their major, you are evaluated the same, there are no exceptions.

Graduate Eligibility

To be in compliance with the Satisfactory Academic Progress standards, graduate students must meet the following requirements: The student must have a cumulative grade point average (GPA) of 3.0 or better. The student must complete, with passing grades, and at least 80% of the total number of quality hours carried for the academic year.

See the following chart:

Academic Years Attended	No. of Grad Credits Earned	Min CGPA
1	18	3.0
2	36	3.0
3	54	3.0

Full-time graduate (nine (9) hours per semester) students will be allowed three (3) academic years to complete a degree.

Half-time graduate (four (4) hours per semester) students must earn a minimum of 8 credits per academic year to maintain eligibility to receive assistance. Less than full-time graduate students will be extended on a pro rata basis not to exceed six (6) semesters of full-time enrollment.

Time Limit: Graduate students will be allowed three (3) academic years to complete a degree. For Masters: All work accepted at the time the student is admitted to candidacy must have been earned within a five-year period prior to admission to candidacy (at HU, and transfer credits). All work for the Master degree program must be completed within a period of four (4) years from the start of the semester in which the student was admitted to the degree program. For PH.D, all requirements must be completed within seven years after initial enrollment in the Graduate College.

The number of credit hours in which the student is enrolled on the day following the published last day to add/drop a class will be used as official enrollment for financial assistance purposes; full-time status is nine (9) or more hours. If a full-time student withdraws from classes after the date cited above and reduces

his enrollment below the full-time status, the student will not be meeting the minimum number of credit hours to be earned in one academic year. The deficit hours must be made up in the Spring or Summer semesters immediately following or the student will be ineligible for further financial assistance.

An **Incomplete (I) grade** indicates that a student has not completed all coursework required for a grade; students are allowed one academic year to complete the work. Incomplete grades will not count as hours passed until a final grade is determined.

Repeated Courses
Repeated courses will not be counted to determine whether a student has met the satisfactory academic progress requirement, but will be counted towards your academic progression for number of semester hours completed.

Professional Eligibility
SAP standard requires a minimum of 24 credits per academic year, and must maintain at least a "C" (2.0) cumulative grade point average.

Time Limit: Professional (Pharmacy) once admitted, students must complete the first three (3) years of the program within a period of five (5) years. For Professional (Architecture), once admitted, students must complete program within four (4) years.

SAP Review Process
Generally a student can be cited for not meeting the SAP requirements at the end of the academic year. All students who are applying for federal assistance, will be evaluated for SAP standards prior to the awarding of aid. For those students who attend the entire academic year, if they are found to not be meeting the academic requirements at the end fall semester, could be subject to receive a Financial Aid Warning. At the time of the warning the student must meet the SAP requirements the next subsequent semester or their financial aid will be suspended and the student must appeal to the Office of Financial Aid to receive federal aid.

Mitigating Circumstances
Waivers for Satisfactory Academic Progress will be given only to those students who have suffered undue hardships such as death of an immediate family member or illness. If the student has undergone undue hardship because of death of a relative of the student; an injury or illness of the student, or other verifiable exceptional circumstances, as determined by the Financial Aid Administrator, the student must provide documentation to support the reason(s) for the waiver request.

Appeal Process
Students may appeal if:

1. There is an error in the student's current grades.
2. There is a change in the student's G.P.A. due to enrollment in another period (ex. Summer School, first semester).
3. Other mitigating circumstances

All students will be notified if they are not meeting the Satisfactory Academic Progress requirements. Students are only allowed to appeal 3 times during their academic tenure. After notification the student must follow the steps below to appeal at least two-weeks prior to the August Payment deadline:

1. Use the Satisfactory Academic Progress Appeal Form to write your appeal, clearly stating the reason(s) for failure to meet the minimum eligibility standard; attach additional documentation if necessary.
2. To ensure timely review, submit your completed appeal packet and all supporting documents within 14 days of receipt of your notification.
3. Allow 14 business days for the review of the appeal, to include a final decision from the Aid Administrator.
4. The Aid Administrators ' decision is FINAL and not subject to further appeal at University, and cannot be appealed to the U.S. Department of Education.

Students with appeals regarding transfer hours in some cases where the number of transfer hours are in dispute, the student must get written confirmation from his/her chairperson or Dean in regards to the actual number of hours being counted toward the student's current degree program. This information must accompany the student's appeal and will become a part of the student financial record.

No appeals will be reviewed during registration periods.
If your appeal letter is not approved and you still wish to attend, you can do so at your own expense. Note that you may wish to apply for a private educational loan, be further advised this type of loan will require that you have satisfactory credit, or you'll need to obtain a credit worthy endorser.

Summer School
Satisfactory academic progress for summer school will be based on the number of semesters completed, number of hours completed and the cumulative grade point average on record at the time the student's file is reviewed. To apply for summer financial assistance, a separate financial aid application must be completed in the Financial Aid Office on April 1.

Assistantships

Hampton University offers a limited number of assistantships to a select number of schools and colleges on the campus. Specifically, Graduate Assistantships offers up to 80% tuition coverage on the first nine hour of graduate coursework; to include a monthly stipend for hours worked on the campus. Eligible graduate students (admitted into a degree seeking program, full-time, as defined by the Graduate College) who are interested, are encouraged to reach out to the respective school/college deans or their designees for information on availability. In addition, the University also offers Student Assistantships, this program, too, have limited number positions. However, the key difference is that Student Assistantships recipients do not receive this tuition coverage for graduate coursework. The recipients do however receive a monthly stipends for hours worked. Interested (eligible) students are encouraged to reach out to respective school or college deans or their designees on availability of positions.

The term "Assistantship" applies to a wide variety of awards that are made available to students in return for the performance of assigned duties and responsibilities. Assistantships may be granted to research assistants, residential assistants, and teaching assistants. It is important note that work responsibilities associated with assistantships do not negatively impact the student's primary responsibilities. These responsibilities should bear a meaningful relationship to the student's course of study.

Some guidelines concerning the awarding of graduate assistantships are presented below:

Eligibility
Students must complete all Graduate College admission requirements in the time period specified in the current Graduate Catalog or in the acceptance letter. Students must be enrolled in a degree program and in good standing at Hampton University. (3.0 cumulative GPA or higher on 4.0 scale).

In general, students may not hold more than one assistantship at one time. Multiple awards are subject to review by the Financial Aid Office, to ensure compliance with University guidelines; if the an additional award include an assistantship that do not require a work obligation on the part of the student. For example, it would be permissible to have one award cover tuition and fees and another provide stipend support. The Financial Aid Office is the final authority as it relates to interpretation and enforcement of student aid policies and/or guidelines at the University.

As is the case for all eligible students (e.g. work-study) receiving financial assistance from the University, assistantship students must satisfactorily perform their respective duties assigned by their supervisors; and cannot be paid for completing work associated with courses for which they receive academic credit. In cases where they are paid to work on projects related to academic requirements, the work responsibilities must reflect time and effort beyond that required for credit.

Duties
Recipients of assistantships may be required to perform (in some cases) research and related duties assigned by his or her supervisor. In general, assistantships require an average up to 20 hours of work per week. Recipients cannot be paid for more than 20 hours per week.

Appointment
All awards (if applicable) to graduate students must be approved by the Dean of the School and/or College and the Director of Financial Aid.

Required forms at present include the Student Aid Form (from the Office of Grants Management), and the Employment Eligibility Verification (I-9), a federal form that must be completed annually by the student and can be obtained from the Financial Aid Office, and monthly time sheets (the first one is generated by the Financial Aid Office and subsequent ones by the payroll department). Changes in conditions of employment must be cleared through the Financial Aid Office.

Reappointment
Reappointment to assistantships is subject to the availability of funds, and based on the student's past work performance to include compliance with the academic standards of Hampton University. The duration of the assistantship (at discretion of the supervisor) should not exceed the usual length of time needed to complete the degree program.

In sum, the supervisor is responsible for compliance with the stated terms and guidelines, as outlined by the Financial Aid Office, to include but not limited for the completion of timesheets and submission to the University Payroll Office, and distribution of the student's paycheck, etc.

Virginia Tuition Assistance Grant Program (VTAG)
The State Council of Higher Education administers the VTAG program for the Commonwealth of Virginia. To be eligible for an award under this program, domiciled students must be full-time, degree seeking, and meet Virginia residency requirements. Students who receive TAG awards at other Schools will be factored in his/her remaining eligibility to receive TAG at Hampton University. Other conditions may also apply. For Graduate students, the TAG program is available to select majors only.

Note: The Financial Aid Office website contains the link and additional information for the VTAG program.

Important Note: Since there is no medium of communication that is 100% efficient at all times, it is therefore the sole responsibility of the student, in need of assistance via the financial aid aid programs offered at the University, to contact their financial aid advisor, preferably, via "Contact US" link at the financial aid office's website, should they have financial aid related questions.

Other
All categories of students are strongly encouraged to review in full, the Financial Aid Office's website for information on potential scholarship opportunities (under the scholarship tab) from external sources.

General Academic Policies and Regulations

The graduation requirements of the University, which must be met for completion of a degree program, are those published in the Academic Catalog in force at the time of the student's admission to the University or change of major through one of the Colleges. Information concerning registration, grading, class attendance, grievances, academic probation and dismissal, and other matters of University- wide applicability can be found on the following pages. Program requirements specific to an undergraduate, graduate or professional program of study are provided in that program's description within the applicable school and college.

Registration for Classes

All students at the University must be properly admitted in order to register for classes. Certain students of the Graduate College and Hampton U Online may take courses in the Undergraduate College if special permission is granted and the student pays all applicable tuition and fees. Registration has no official standing until fully validated.

Program planning is the responsibility of the individual student. Each regular degree-seeking student, whether part-time or full- time, has a faculty advisor assigned to assist him or her in planning a program and sequence of courses. This Catalog lists the courses required in each program and shows typical sequences of the courses for meeting the requirements for the various degrees and major programs of study. Each academic department prepares materials to assist students in program planning and keeping requirements of the major field of study up to date and coordinated with current professional certification, licensing, and other requirements. Each student should review his or her own personal plan before each early registration period and be prepared for the pre-registration conference with his or her academic advisor.

Early registration is conducted in mid-semester for the following semester. It is to each student's advantage to pre-register for classes and make early financial arrangements. The student meets with his or her advisor as scheduled, and complete all pre-registration forms for courses in the advisor's office or major department. Billing shortly follows, and all early registration for the next semester can be completed before the end of the current semester. The student who registers early and pays early has priority in most classes, avoids the late registration and non compliance fee, and can return for the semester with minimal check-in processing.

Changes in Registration

After an initial registration for a group of courses is fully validated, a student may make adjustments in courses or sections, if approved by the faculty advisor or major department chairperson, using HUNet (online registration.) The change, if allowable, and if done before the published deadline, will be recorded in the student's computer-based record. It is the student's responsibility to correct any "errors"/misinterpretations before leaving HUNet. A course change made personally by the student in this manner, or through his or her dean's problem terminal, is recorded in the system, and the student should print a copy of his/her schedule as a personal record of transactions completed. The University recognizes that any change made is binding upon the student. Should the student experience problems or need special help, each school has a help area for assistance.

The period in which courses may be added or dropped and grading status changed, ends approximately one week after the start of classes for each semester. The Official Academic Calendar contains the current dates. No schedule changes may be made after this period ends. All approved changes must be entered by the student using HUNet during the Add/Drop period. Any exception to the deadline will require a course request form signed by the advisor, chair, dean and provost and then the completed form is submitted to the Registrar for processing.

The period in which a student may withdraw from a course with a grade of WP (Withdrew Passing) or WF (Withdrew Failing) ends shortly after the mid-semester evaluation period. The Official Academic Calendar contains the current dates. No courses may be withdrawn after this period ends. The vehicle for this application to the Registrar is the completed course withdrawal form.

After the end of the course withdrawal period through the last day of classes (i.e., before the final examination period), a student can only withdraw completely from the University (i.e., from all courses). Each course will still receive a grade of WP (Withdrew Passing) or WF (Withdrew Failing). The vehicle for this application to the Registrar is the completed Petition for Separation Form.

Changing grade status (e.g., to and from S/U, Audit, regular grading) requires the student to complete a Course Request Form to eliminate the original registration and to "ADD" the new registration for the course(s). Changing S/U grade status is not permitted after the "ADD" period ends.

Auditing a course must be elected, approved, and fully processed before the end of the Audit period. The auditing student pays one-hour tuition for the course.

A graduating senior who lacks no more than six (6) semester hours of coursework to complete the bachelor's degree, may request approval from the Graduate College to register for up to six (6) semester hours of graduate credit from the 500 level courses while still enrolled in the Undergraduate College. The courses must not be required courses in the student's undergraduate program. The request must also be approved by the chairperson of the major department, and the Dean of the Graduate College. Grades made in these graduate courses must be "B" or better to be applied to a graduate degree program. Under no circumstances will an undergraduate student be allowed to register for graduate-only (600 and 700) level courses.

Grades and Grade Reports

A grade report is sent at the end of each semester to each student. Mid-term evaluations are sent to the student at mid-semester. The mid-term evaluations are not recorded on the student's

permanent record. The student's local address of record is used for all reporting and other communication during the semester, and the student's permanent address of record is used at semester's end and other times. Students will not receive grades nor be able to obtain an official or unofficial transcript with a delinquent balance.

The Grading System Effective Spring 2020

Letter Grade	Numerical Grade	Quality Points
A +	97 - 100	4.1
A	93 - 96	4.0
A-	90 - 92	3.7
B +	87 - 89	3.3
B	83 - 86	3.0
B-	80 - 83	2.7
C +	77 - 79	2.3
C	73 - 76	2.0
C-	70 - 72	1.7
D +	67 - 69	1.3
D	63 - 66	1.0
D-	60 - 62	0.7
F	Below 60	0.0

AU Audited work. Not computed in, and not applicable to, cumulative grade point average (GPA).

I Incomplete work. Not computed in and not applicable to cumulative grade point average (GPA) but converts to "F" if work not completed within a year for undergraduate students and to a "Z" after one semester for graduate students. The student does not need to be enrolled to remove an "I" grade. A grade of "I" indicates that the student has maintained a passing average, but for reasons beyond his or her control, some specific item such as an examination, a report, a notebook, or an experiment has not been completed. The student holding a grade of "I" is responsible for taking the initiative in arranging with the instructor for changing the grade.

IP Students separating from the University because of mobilization in the Armed Forces will receive grades of "IP"("In Progress") and will have up to three years from the date "IP" grades were issued to remove the "IP" grades. During that three-year period, the students will not be charged tuition for attending courses in which "IP" grades were awarded.

S Satisfactory at the "C" or higher grade for undergraduate courses, or "B" or higher for graduate courses. Not computed in the cumulative GPA, grade point average.

U Unsatisfactory below the "C" level (i.e., C-, D+, D, D-, F) for undergraduate courses or "B" level for graduate courses. Not computed in the cumulative GPA grade point average.

WP Withdrew Passing - Not counted in cumulative average.

WF Withdrew Failing - Not counted in cumulative average.

Z Blank/ No grade submitted.

Grade Appeals

If a student suspects that a final course grade was unfairly or inaccurately awarded, then the grade appeal process must be completed. The student will have 10 days from the first day of classes of the next semester to complete the grade appeal process, beginning with the instructor of the course. If the concern about the grade in question is not resolved with the instructor, the student may file a written appeal with higher levels of authority, i.e., the department chairperson, the school/college dean, and finally, the Office of the Chancellor and Provost.

Grade changes require the use of a grade change form. The instructor must complete the grade change form, obtain all necessary signatures and submit the approved form to the Registrar's Office for processing.

Change of Grade Policy

Only under exceptional circumstances is it possible to have grades changed once they have been placed on a student's permanent record. One exception is the changing of a grade of "Incomplete." A grade reported and recorded can only be changed upon the instructor of record's written request. Requests for grade changes must be submitted on a change of grade form. The instructor of record must complete the form, obtain all of the necessary signatures, (i.e., department chairperson, school dean/director, and Chancellor and Provost) and submit the approved form to the Registrar's Office for processing. Such a change can be approved only upon certification by the instructor of record that the originally reported grade was in error.

If the instructor of record is not available for justifiable reasons, a three (3) member Change of Grade Panel, comprised of faculty members appointed by the Chancellor and Provost, will evaluate the change of grade request to determine if the change is warranted. If approved by the Committee, a change of grade form will be forwarded to the Office of the Registrar. The Registrar will not record the change until the request has been approved and properly signed by the appropriate administrators. Violations of the grading policy will result in an official letter of reprimand. Repeated violators may be subject to dismissal for cause by the Chancellor and Provost.

Repetition of Courses

All courses taken and grades for them will appear on the student's record. A student may not elect the Satisfactory/Unsatisfactory basis for a repeated course. All undergraduate courses that are repeated with earned grades of "C" or higher, will have all of these grades calculated in the cumulative grade point average. However, a course may be counted only once toward the degree, regardless of when it was taken. Effective Fall 2006 and beyond in which a final grade of "C-" through "F" has been earned. All grades remain on the permanent record with an indication that the course has been repeated on both the original and the most recent grade. However, only the most recent grade will be calculated in the cumulative GPA for those courses that a student repeated due to a previous grade of C- through F. This policy is applicable only to courses taken at Hampton University.

Graduate students will have all grades earned calculated in the cumulative grade point average.

For undergraduate students, English 101 and 102, Communication 103, and all required major courses and must be passed with a grade of "C" (2.0) or better. A Grade of "C-" or below in these courses will require repeated enrollment until the required minimum grade has been attained for each such course. Each major degree program may impose a minimum grade requirement upon other courses as specified in the program description in this Catalog.

Auditing a Course

A student may audit a course, with the approval of his or her academic advisor, if class size permits. The auditing fee is the same as the normal registration fee for one credit hour. Auditing students are required to attend class regularly as specified by the instructor, but may not take the examinations. A student may choose to audit a course or change from credit to audit up through 30 days after the first day of classes. No credit hours are received for courses that are audited. Audited courses do not count toward completion of graduation requirements.

Satisfactory/Unsatisfactory (S/U) Option

Any course, except those specified by the college or the student's major department, may be taken under the Satisfactory/ Unsatisfactory (S/U) grading system. Satisfactory means that the undergraduate student has achieved at the "C" or higher academic level and the graduate student has achieved at the "B" or higher academic level. Unsatisfactory means that the undergraduate student has achieved below the "C" level (i.e., C-, D+, D, D-, F) or below "B" level for a graduate student. A student cannot take more than two courses on the S/U basis per semester and cannot take more than 18 semester hours of S/U credit to be applied to degree requirements. School Deans or departments may set lower limits for their undergraduate students. The master's or doctoral comprehensive course and the dissertation defense course are the only S/U credit course that count toward degree requirements for graduate students. The credit hours for graduate courses taken on a S/U basis are not counted toward degree requirements. Students should also be aware that most employers and graduate schools do not favorably consider applicants who excessively use the non traditional grading options. Departments may offer entry level, developmental courses on an S/U basis. The S.U basis may not be used for a repeated course or any lecture course in the major discipline.

Withdrew Passing/Withdrew Failing (WP/WF)

A student who withdraws from a course after the established deadline for dropping a course and before the deadline to withdraw from a course will receive a Withdrew Passing (WP), or Withdrew Failing (WF), grade that reflects the student's academic performance as of the effective date of withdrawal. Students who officially separate from the University will receive "WP" or "WF" grades for all courses for that semester or term. The WP/ WF grades carry no quality points and do not contribute to the student's grade point average.

Calculation of Grade Point Average

The Grade Point Average (GPA) is computed by dividing the total number of grade points earned (also called quality points, QPTS) by the total number of academic GPA Hours (GPAHRS). All courses recorded on the student's undergraduate transcript with a final grade ranging from "A+" through "F" generate quality points that are included in the total number of quality points. The grade point average for graduate students is determined by grades in graduate courses only. The number of quality points from each course is the product of the GPA hours times the quality point value for the grade as listed in the table "The Grading System." The GPA hours attempted for these courses are included in the total number of GPA Hours. Courses with no grades (e.g., transfer credit, credit by examination or advanced placement credit) and those with other grades (AU, I, IP, S, U, WF, WP and Z) are excluded from the grade point average. For example, the grades in the table below produce a grade point average of 2.208 obtained from 26.5 Total Quality Points divided by 12.0 Total GPA Hours.

Sample Grade Point Average Calculation

Course	Credit Hours (CrHr)	Final Letter Grade	Earned Hours (EHrs)	GPA Hours (GPAHrs)	Quality Points (QPts)	Grade Point Average
BIO 101	3.0	F	0.0	3.0	0.0	-
ENG 101	3.0	C+	3.0	3.0	6.9	-
HEA 200	2.0	B+	2.0	2.0	6.6	-
HIS 106	3.0	B	3.0	3.0	9.0	-
MAT 151	4.0	S	4.0	N/A	N/A	-
UNV 101	1.0	A	1.0	1.0	4.0	-
Totals	16.0	-	13.0	12.0	26.5	2.208

Examinations and Other Graded Work

Each course has periodic examinations and a final examination or evaluation. Final examination times are announced at least two weeks in advance of the first scheduled final examination. Students are required to take all of their final examinations at times scheduled. The University does not authorize re-examination, nor will changes in final examination times be permitted unless the student has an examination conflict or has four or more examinations scheduled in one calendar day.

Absence from examinations should be discussed with the instructor before the examination so that the instructor can determine if there is sufficient reason to excuse the student or re-schedule the examination for the student.

Absence from the final examination or otherwise not completing course assignments within the scheduled time of the course is generally not excusable. Only debilitating illnesses or other emergencies are considered reasonable causes for being excused from final examinations and not completing course assignments as scheduled. If the final examination or other assignments are postponed with the consent of the instructor, an "I" is recorded on the student's record to show the course work is "Incomplete." If the

work/examination is not completed within one calendar year, the "I" automatically becomes an "F."

Postponed examination and other assignments: A deferred examination is provided by the instructor for a student who has been excused by the instructor from taking an examination or completing other course work at the scheduled time. The student must arrange with his or her instructor to take the missed examination or complete the missing assignment as soon as possible. Except under very extraordinary conditions, the student is not permitted to postpone the taking of a deferred examination beyond the second occasion provided by the instructor.

Class Attendance Requirements

Faculty members should establish attendance requirements in each of their courses. Instructors are responsible for clearly informing the students in the course syllabus at the beginning of the semester of the attendance requirements and the consequences of poor attendance.

Additional Regulations:

1. Absence from class does not relieve any student of the responsibility for completing all class assignments. Instructors are not obligated to provide make-up work for students who have missed classes unless the student is able to render a satisfactory explanation for his or her absence. The student shall be responsible for arranging make-up work with the instructor, who shall be the sole judge of the satisfactory completion of the work.
2. Students may not be allowed to make up or complete work, which is missed as a result of suspension or dismissal from the University. Suspension or dismissal before the end of the semester involves the loss of academic credit for the entire semester.

Tardiness Policy:

Classes are scheduled to provide students with 10-15 minutes for transition to their next class, depending upon the day of the week. Specifically, classes schedules for Monday, Wednesday or Friday end 10 minutes before the hours (e.g., 9-10:50), giving students 10 minutes to transition to their next class; classes scheduled for Tuesday or Thursday end 15 minutes after or 15 minutes before the hour (e.g., 9-10:15 or 10:30-11:45), giving student 15 minutes to transition to their next class. Students will be given an additional five minutes to arrive for class without penalty, e.g. 9:05 or 10:35. Students who enter class after the five minute period will be governed by the tardiness policy stated on the course syllabus. Instructors are expected to end their classes promptly at the announced time.

Class Absences:

1. As a general rule, students will be responsible for resolving class absences directly with the instructor. It will be the instructor's responsibility to excuse or not excuse an absence as he or she so judges in accordance with the explanation rendered by the student.
2. Any student who is ill should notify his or her instructors that he or she will not be attending classes because of illness.
3. It is the responsibility of a student planning a prearranged absence for personal or school purposes to notify his or her instructors at least 24 hours prior to the absence. Absences for school purposes may be verified by the staff or faculty member directly involved with the activity.
4. A residential student having to be absent because of a death or serious illness or for an extended period of time should inform his or her residence hall director and the Dean of Students in the Office of Judicial Affairs. The Dean will, in turn, notify the student's instructors that notice of the absence was received and will issue a verification email. Commuting students should inform instructors of their need to be absent and prevent documentation to support their absence to the Office of Judicial Affairs for verification to be forwarded to the faculty.
5. Instructor absence:
   a) An instructor who, for any cause, is unable to meet his or her class will make arrangements for a substitute to carry on the work or for the students themselves to carry on the class activities.
   b) If no such arrangements have been made, the students may assume, after the first ten minutes of the class period, that the class will not be held. Supplementary rules on attendance not inconsistent with these general rules may be adopted by the academic departments of the University. The Provost has the authority to dismiss or expel any student who fails to meet scholarship requirements or to abide by academic regulations.

Grievance Procedure for Hampton University Students

Step One START AT THE SOURCE OF THE PROBLEM.

A) Schedule a conference with the instructor of the course.

B) Be prepared to discuss issues of concern clearly. Do not speculate.

C) Proceed to the next level of authority if the problem or concern is not resolved.

Step Two SCHEDULE A CONFERENCE WITH ACADEMIC ADVISOR.

Repeat steps B and C as stated in Step One.

Step Three SCHEDULE A CONFERENCE WITH THE ADMINISTRATIVE HEAD OF THE DEPARTMENT OR ACADEMIC UNIT.

Repeat steps B and C as stated in Step One.

Step Four SCHEDULE A CONFERENCE WITH DEAN OF THE SCHOOL.

Repeat steps B and C as stated in Step One.

Step Five SCHEDULE A MEETING WITH GRIEVANCE COUNCIL OF THE SCHOOL.

Repeat steps B and C as stated in Step One.

Step Six SCHEDULE A CONFERENCE WITH THE CHANCELLOR AND PROVOST OR DESIGNEE.

Veteran/Military students should follow the institutional policy. If the situation is not resolved at the institution, the beneficiary should send a complaint to SAA@dvs.virginia.gov (Virginia State Approving Agency – SAA).

NOTE: If steps one through five have been omitted, the Office of the Chancellor and Provost will refer the case back to the step that was omitted.

Hampton University has policies which have been established to resolve student problems and issues in a fair and impartial manner. Our most important business is to help students learn while maintaining high academic and ethical standards.

It is recommended that each learner "follows the counsel of those wise faculty members who have dedicated their lives to meeting the needs of students who are willing to take responsibility for their own education."

Separation from the University

Leaving the University for any reason is separation from the University and is categorized as:

Official Withdrawal

As defined by the University, "withdrawal" means that the student ceases to attend all classes and is no longer considered enrolled in the University. Leave of absence is included within official withdrawal. Official withdrawal follows from the student informing the Dean of Students of intent to withdraw and completing the University Separation form. A student who withdraws before the end of the course drop period will have his or her entire semester registration record removed from the permanent record. Withdrawing after the end of the drop period – but before 4:00 p.m. on the last day of classes -- causes "WP" or "WF" entries for each course of the student's current enrollment. Withdrawing after the last day of classes results in grades as earned for the term being recorded in the permanent record.

Academic Dismissal

Dismissal for Academic Deficiencies results when a student does not meet the minimum academic standard. A minimum cumulative grade point average of 2.000 is the standard for all undergraduate students, but there is a sliding scale standard rising to 2.000 at 63 semester hours attempted. The purpose of the rising sliding scale standard is to allow time for the insufficiently prepared student to make up deficiencies in academic preparation for college work. Students who maintain a cumulative grade point average at or just above 2.000 place themselves in jeopardy of being dismissed without any other warning any time their semester average drops below 2.000. Students cannot take online courses at any other institution.

Social Dismissal

Dismissal for not meeting generally accepted social standards and levels of decorum may occur at any time a student violates his or her trust in these matters. The University reserves the right to separate any student from the University for nonpayment of accrued charges, for ill health, or for disciplinary reasons.

Unofficial Withdrawal

Unofficial withdrawal results when a student who is matriculated for a degree and is in good standing does not enroll in a consecutive semester (excludes summer school). If an undergraduate student leaves during a term and does not file a separation form or submit a letter requesting to be withdrawn he or she is considered officially enrolled. A student who withdraws unofficially has not established an official date of separation and consequently cannot be given a pro-rated refund for which he or she otherwise may be eligible. An unofficial withdrawal may also obligate the student to repay loans more quickly or in higher amounts than expected.

Readmission to the Undergraduate College after separation, for whatever reason (including all types outlined above) requires a current formal application for admission to Hampton University. Admission procedures are enumerated in this catalog's section on admission.

Taking Courses at Another Institution

Hampton University students may be permitted to earn credit for courses taken at another accredited institution of higher education. Concurrent registration at one of the institutions in the Tidewater Consortium of Higher Education affords the student with academic credit and quality points for courses passed and impacts the student's grade point average at Hampton University. Approved transfer credit from another accredited institution of higher education affords the student with academic credit only.

Concurrent Registration

The Tidewater Consortium of Higher Education affords students the opportunity to take enrichment courses, not taught at the home school, at another member institution. Certain restrictions and regulations of the Consortium, the host schools, and Hampton University apply. This opportunity is open to full-time undergraduate students with a cumulative grade point average of 2.000 or better and is designed to make available a wider variety of upper- division, elective courses. Graduate students require a minimum grade point average of 3.000, or better, and special permission from the Dean of the Graduate College.

Transfer Credit

A student may elect to take a course at any accredited institution of higher education. To protect the student and to ensure that the student is able to have the course and its credit, not quality points, transferred back to his or her program at Hampton University, the student must secure permission from his or her academic advisor, department chairperson, and school dean before the end of the Hampton semester prior to taking the course(s) at the other school. Standard forms and instructions may be obtained in each department. Transfer credit can only be posted to the student's record if the student is currently registered when the transaction is received in the Registrar's Office. The student is responsible for having an

official transcript mailed to the Registrar's Office when the work has been completed. Credit hours will be awarded for approved courses carrying a letter grade of "C-", or better for undergraduate courses and a "B", or better for graduate courses. A "C-" grade cannot be used to fulfill an undergraduate major requirement. All undergraduate major courses must be completed with a grade of "C" or higher. No credit will be awarded undergraduate students for courses with grades of less than "C-". The appropriately approved, posted transaction will appear on the student's record when the current term is completed. No online courses from another institution will be accepted as transfer credit for students matriculating in the Undergraduate College.

The cumulative grade point average of each student will be calculated on work (courses) taken at Hampton University excluding the transferring of quality points between Hampton U Online, the Graduate College and Hampton Institute, The Undergraduate College.. All credits earned at other institutions, including those earned by students seeking re-entry to the University, as well as those with approved permission to take courses at another institution, will be treated/classified as transfer credits. They may be used to reduce the number of hours required for graduation. However, they will not be used in calculating the cumulative grade point average.

Good Academic Standing

Students whose cumulative averages are equal to or greater than the average for their tenure and who have met their financial obligations, and whose conduct is in keeping with the standards of membership in the university will be considered in good academic standing. Students in good academic standing are entitled to continue registration and class attendance and are eligible to apply for a degree upon completion of the necessary requirements. They are entitled to all the privileges of membership in the university, including residence, class attendance, examinations, participation in student activities (except as set forth below) and use of facilities under the regulations of the university. They are entitled to receive regular reports of their progress, to have transcripts and other official documents issued upon request, and to use the placement and other student services of the university. Any student on academic probation may be retained in accordance with the university's regulations. An undergraduate student placed on probationary status is allowed to retain status as a student with the following provisions:

1. The student may not register for more than thirteen hours per semester. Exceptions to this rule must be approved by the Office of the Chancellor and Provost.
2. The student may not participate in extracurricular activities, which are not class-related; and the student may not travel in the name of the university or at university expense. Exceptions to this rule must be approved by the Vice President for Student Affairs or the Office of the Chancellor and Provost.

Satisfactory Progress

All students are reviewed for progress towards the completion of their degree. This process takes place during the pre-registration period of each semester by the academic advisor. A student cannot receive his/her registration pin number without being advised by his/her major advisor.

The Office of the Registrar will also check each veteran/military student's course enrollment schedule to ensure that their enrolled courses are required for the completion of their major degree program. Students will not be certified for courses not listed in the major program. This may reduce the number of full time hours submitted to the Office of Veteran Affairs. All students must check their schedule for accuracy.

Any undergraduate student enrolled as a regular degree student who maintains the cumulative average required by regulations and is enrolled in at least twelve (12) semester hours of coursework each semester shall be considered to be maintaining satisfactory progress toward a degree. As an exception, a student's cumulative grade-point average may fall below 2.00, but not less than the minimum set forth below for the number of Grade Point Average hours attempted during which time he or she shall be placed on academic probation. The probationary student is subject to dismissal if the student fails to achieve the required minimum cumulative grade-point average in the following semester. Any graduate student enrolled as a regular degree student who maintains at least a 3.00 cumulative GPA and is enrolled in at least nine (9) semester hours of coursework each semester shall be considered to be maintaining satisfactory progress toward a degree.

Any graduate student enrolled as a regular degree student who maintains at least a 3.00 cumulative GPA and is enrolled in at least nine (9) semester hours of coursework each semester shall be considered to be maintaining satisfactory progress toward a degree.

Regulations for Probation and Academic Dismissal of Undergraduate Students

- A student who does not pass any courses at the end of any semester is subject to dismissal from the university.
- A student who has a cumulative grade point average below after 9 GPA Hours will be subject to dismissal from the university.
- A student who has a cumulative grade point average below 1.5 after 18 GPA Hours is subject to dismissal from the university.
- A student who has a cumulative grade point average below 1.6 after 27 GPA Hours is subject to dismissal from the university.
- A student who has a cumulative grade point average below 1.7 after 36 GPA Hours is subject to dismissal from the university.
- A student who has a cumulative grade point average of less than 1.8 after 45 or more GPA Hours is subject to dismissal.
- A student who has a cumulative grade point average of less than 1.9 after 54 or more GPA Hours is subject to dismissal.
- A student who has a cumulative grade point average of less than 2.0 after 63 or more GPA Hours is subject to dismissal.
- If the major department chairperson, the school dean of the major area, and the Office of the Chancellor and Provost approve, a student with a cumulative grade point average between 1.95 and 1.999 after 63 or more GPA hours may be

given special permission to enroll for one additional semester in order to achieve the required 2.0 cumulative grade point average. A student with a GPA between 1.95 and 1.999 who has been dismissed for the second time may be given special permission to enroll during the summer term as a provisional student and must earn a GPA of 3.0 in non-repeat academic courses. Concurrence must be obtained from the department chair and school dean.

- Academically deficient students will generally only be dismissed at the end of the spring semester.
- A student with less than a 2.0 cumulative grade point average is placed on academic probation.
- A student on academic probation must take a reduced class load not to exceed 13 semester hours.
- A student who has been dismissed for academic deficiencies may apply for readmission upon obtaining and presenting evidence of increased academic maturity. Academic courses taken at another institution to be presented as evidence of increased academic maturity should not be those previously attempted at Hampton University. Further, these courses should involve the use of computational and verbal skills.
- University regulations governing dismissal and academic probation are summarized in the table below.

Academic Probation and Dismissal

Level of Enrollment (by credits earned)	Cumulative GPA for Dismissal	Cumulative GPA for Academic Probation for Those Students Not Dismissed
1 Semester	0.000	Below 2.0
9 to 17	Below 1.0	Below 2.0
18 to 26	Below 1.5	Below 2.0
27 to 35	Below 1.6	Below 2.0
36 to 44	Below 1.7	Below 2.0
45 to 53	Below 1.8	Below 2.0
54 to 62	Below 1.9	Below 2.0
63 or more	Below 2.0	Below 2.0

In cases where a student has been dismissed, the student may appeal suspected errors in grade point average computation to the Registrar, and circumstances of illness with a physician's certification to the Office of the Chancellor and Provost. A student has 10 days from the date of the letter announcing his or her dismissal to appeal his or her dismissal. A student dismissed for academic reasons will normally not be readmitted within six months of the dismissal nor be readmitted until he or she can demonstrate a high level of academic achievement and maturity.

Regulations for Probation and Academic Dismissal of Graduate Students

1. The minimum standard for graduate work leading to a master's degree is a 3.0 grade point average.
2. A student whose overall grade point average falls below 3.0 at the end of any term will be placed on academic probation and must raise this average to 3.0 by the time he or she completes nine (9) additional hours. A student who fails to comply with this requirement will be subject to dismissal from the degree program or from the Graduate College by the Graduate Council based on the recommendation of the department chair or the Dean of the Graduate College.
3. Grades below "C" carry no credit. However, such grades will be used in computing the overall grade point average. An earned grade below "C" in any course requires that the course be repeated.
4. An accumulation of no more than eight (8) hours of grades below "B" may be counted toward degree requirements.
5. The University reserves the right to terminate the registration of any student whose record falls below the standard acceptable to Hampton University. The department, with the concurrence of the Graduate Dean, can recommend to the Graduate Council that a student be withdrawn from the degree program for unsatisfactory performance.

Continuance as an Undergraduate Student - Minimum Standards for Continuance

Through an instructional program supplemented by faculty advising and counseling as necessary and as requested by the student, the University gives the student every encouragement to achieve academic excellence. The University expects the undergraduate student to make reasonable academic progress.

The minimum acceptable standard is to achieve and maintain a cumulative grade point average of 2.000 ("C" level) or better across all courses taken for credit. However, to assist students who are insufficiently prepared academically to achieve at the level of 2.000 cumulative grade point average on first entering, the University allows continuance on probation at less than 2.000 cumulative grade point average according to the following scale. A student who does not pass any courses at the end of his or her first semester will normally be dismissed from the University, as will the student who does not meet the level of achievement listed below (and printed in the table below).

GPA Hours	Cumulative GPA
9 to 17	1.0
18 to 26	1.5
27 to 35	1.6
36 to 44	1.7
45 to 53	1.8
54 to 62	1.9
63 or more	2.0

Academic Probation

Any undergraduate student who falls below a cumulative grade point average of 2.000 and is not dismissed for academic deficiency is placed on academic probation by the Chancellor and Provost of the University. A student on academic probation is limited to a 13

semester-hour load each semester while on probation and may not participate in extramural activities unless the activity is class related. A student may be dismissed for academic deficiency without ever having been on probation or without any other warning than a cumulative grade point average near or below 2.000.

Academic Dismissal

A regular student matriculating for a degree is dismissed for academic deficiency, with or without a period of probation or a period of warning, by the Chancellor and Provost when the student's cumulative grade point average falls below the level required for the number of GPA Hours attempted, as shown above under minimum standards for continuance. Hampton University normally dismisses academically deficient students at the end of the spring semester; however, a student may be dismissed at the end of the previous fall and summer session for poor performance in its major program of study.

Appealing a Dismissal for Academic Deficiency

There is no appeal of a dismissal for academic deficiency if the student's cumulative grade point average is below the minimum standards for continuance unless the student suspects an error in calculation of his or her grade point average, or the student has had a recent medical or other emergency that has prevented satisfactory completion of a course or courses in the most recent semester of the Undergraduate College. An appeal based upon suspected miscalculation of one's GPA is addressed to the University Registrar.

Academic Warning

An academic warning notice is sent to an undergraduate student if his or her semester grade point average is below 2.000, but his or her cumulative grade point average is 2.000 or higher. A student may be placed on probation or be dismissed without any other warning than a grade point average near or below 2.000.

Credit by Examination

A student may request credit by examination for the purpose of validating knowledge of the material presented in a course. Prior to processing the request, the "Application for Credit by Examination" form must be approved by the chairperson of the student's department, the chairperson of the department offering the examination, and the appropriate deans. Approval by the Chancellor and Provost is required prior to fee payment. A copy of the completed examination must be filed with the appropriate dean. Credit by examination shall not be attempted for a course previously taken or failed by the student.

No student will be allowed over two examinations for credit per semester, up to a maximum of 30 credit hours per degree. No fresh- man student will be allowed to earn credit by examination for 300 or 400 level courses. Only the Chancellor and Provost may make an exception to these rules upon the recommendation of the school dean.

Letter grades will not be given for credit by examination. The number of credit hours earned will be indicated on the student's transcript. If the semester is over, credit will be processed with previous semesters.

Release of Information from Student Academic Records

1. Reports: The University periodically sends written reports of the student's academic progress to the student.
2. Access to student records is governed by the Federal and State of Virginia Freedom of Information Acts/Policy and the Policy of Hampton University.
3. Access to student records by officers and staff of the University is based on need to know in one's official capacity.
4. Access to his or her own permanent official academic record by the student is achieved by ordering a transcript of courses attempted and grades earned. Access to various temporary and other work files in operating offices in the University is by application to the individual office. All attempts will be made to quickly satisfy legal and reasonable record access requests of the student to his or her own record. However, an appointment up to four weeks from the date of the written request from the student may have to be used during periods of the University closing and unavailability of staff to provide data and to monitor their review.
5. Il persons other than staff of the University and the individual student of legal age may access a student's record only with the student's written permission. The original signature of the student must be on the written request identifying the allowed access given to the University office of record for the student's information. No access is allowed to a student's information on file at the University except for standard directory information and access by those legal entities and agencies as allowed under the Privacy Acts of the Federal Government and the State of Virginia.
6. A student may request transcripts of his or her academic record as necessary. A fee is charged for each transcript.

Release of Information Policy

This is to inform students that Hampton University intends to comply fully with the Family Educational Rights and Privacy Act of 1974, as amended. This Act was designated to protect the privacy of education records, to establish the rights of students to inspect and review their education records and to provide guidelines for the corrections of inaccurate or misleading information and complaints with the Family Educational Rights and Privacy Act Office (FERPA) concerning alleged failures by the institution to comply with the Act. Local policy explains in detail the procedures to be used by the institution for compliance with the provisions of the Act. The policy can be read in the Office of the University Registrar. This office also maintains a directory of record, which lists all education records maintained on students by this institution.

Hampton University designates the following information as public or directory information. Such information may be disclosed by the institution at its discretion: name, address, telephone number, dates of attendance, previous institution(s) attended, major field of study, awards, honors (including Dean's List), degree(s) conferred (including dates), past and present participation in officially

recognized sports and activities, physical factors (height, weight of athletes), date and place of birth.

Currently enrolled students may withhold disclosure of any category of information under the Family Educational Rights and Privacy Act of 1974, as amended. To withhold disclosure, written notification must be received in the Office of the Registrar, First Floor, Whipple Barn no later than 10 days after classes have started. Forms requesting the withholding of "Directory Information" are available in the Registrar's Office.

Hampton University assumes that failure on the part of any student to specifically request the withholding of categories of "Directory Information" indicates individual approval for disclosure.

The student has the right to file a complaint with the U.S. Department of Education concerning alleged failure of the University to comply with requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, D.C. 20202-5901.

Veterans/Active Duty Military

Active duty military personnel and veterans can receive advanced credit, depending upon rank, length of service, duty specialty, and service schools completed. Veterans and active duty personnel must submit copies of DD Form 214 or DD Form 295. The University grants the following academic credits to veterans of two or more years of honorable service in the United States Armed Forces who are enrolled in regular degree granting programs: A maximum of four semester hours for military service for veterans in pay grades of E8 and above, and six semester hours for pay grades of E7 and below (these credits can be used to meet the social science requirements, except for History 101, 102, 105, 106 or 108). A maximum of three semester hours in oral communication is allowed for veterans in pay grades of E8 and above.

Veteran Benefits and Transition Act of 2018

Effective August 1, 2019

Background: Section 103 of PL 115-407, "Veterans Benefits and transition Act of 2018, amends the Title 38 US Code 3679 by adding a new subsection (e) that requires disapproval of courses of education, beginning August 1, 2019, at any educational institution that does not have policy in place that will allow an individual to attend or participate in a course of education, pending VA payment, providing the individual submits a certificate of eligibility for entitlement to educational assistance under Chapter 31 or 33.

Hampton University Policy:

In accordance with Title 38 US Code 3679 subsection (e) of the Veterans Benefits and Transition Act of 2018, Hampton University will not impose a penalty on any student using veterans' education benefits under Chapter 31 (Vocational Rehabilitation & Employment) or Chapter 33 (Post 9/11 GI Bill ®) because of the individual's inability to meet his or her financial obligations to the University due to the delayed disbursement of funding from the Department of Veterans Affairs (VA).

Hampton University will not:

- Prevent the student from attending or participating in the course of education during periods in which there is a delayed disbursement;
- Assess a late payment fee if the financial obligation is fully funded by the Department of Veterans Affairs (VA);
- Require the student to secure alternative or additional funding for delayed disbursements;
- Deny access to University facilities and services (e.g. access to grades, transcripts, and registration) available to other students who have satisfied their tuition and fee bills.

However, Hampton University will require that such students adhere to the following:

- Produce the VA's Certification of Eligibility by the first day of class,
- Provide written request to be certified, and
- Provide additional information needed to properly certify. (All students must complete the enrollment form stating that he/she would like to use their benefits and a copy of their class schedule each semester)

All students receiving benefits should only register for courses listed in their degree program. Students will not be certified for courses outside of their major.

The school shall report all courses in which a Veteran or eligible person is enrolled without delay to the Department of Veterans Affairs (DVA). The school will also report any interruptions or terminations of such course work or enrollment changes to the DVA based on the last day of pursuit.

All students should follow the institution's Student Grievance Procedure. Veteran/Military students should also follow this policy. If the situation is not resolved at the institution, the beneficiary should send a complaint to SAA@dvs.virginia.gov (Virginia State Approving Agency - SAA).

All students are reviewed for progress toward the completion of their degree. This process takes place during the pre-registration period of each semester by the academic advisor. A student cannot receive his/her registration PIN number without being advised by his/her major advisor.

The Office of the Registrar will also check each veteran/military student's course enrollment schedule to ensure that their enrolled courses are required for the completion of their major degree program. Students will not be certified for courses not listed in the major program. This may reduce the number of full time hours submitted to the Office of Veteran Affairs. All students must check their schedule for accuracy. For additional questions, contact the Registrar at http://registrar.hamptonu.edu/veteran.cfm.

Student Affairs and Services

The Division of Student Affairs is comprised of several departments that promote the intellectual, personal, social, moral, physical, and psychological development of Hampton University students. The division's programs, services, facilities, and activities seek to create a student-centered culture that engenders community, encourages engagement, and develops students to be contributing citizens in a global and diverse society.

The Vice President for Administrative Services serves as the chief student affairs officer and is responsible for providing leadership and facilitating the development of policies, procedures, and programs to fully integrate into the university's mission of maximum student development. The Vice President represents the student affairs area in university-wide councils, serves as a member of the Administrative Council, and works very closely with other administrators, students and staff, in regard to the overall welfare of students.

In keeping with Hampton University's positive concern for the whole student, his or her out-of-class activities, and his or her psychosocial development, the following objectives serve as guidelines for Student Affairs.

1. To coordinate the efforts of students and student development services to provide the highest quality of student life possible for all students enrolled in the University.
2. To provide in-service staff development programs as a means of helping the student development staff meet their job challenges in an assertive and productive fashion.
3. To assist the faculty and administrators to understand and work effectively with students.
4. To provide opportunities for students to develop interpersonal relationships.
5. To serve as resource persons in helping students to understand the faculty and the general operation of the University.
6. To assist students and staff to realize the importance of students learning to accept responsibility for their lives and to help them continually strive toward the achievement of self-direction.

Students are responsible to the Vice President for Administrative Services for personal decorum. The Vice President for Administrative Services has the ultimate responsibility for determining the appropriate disciplinary body to hear and act upon cases involving student violation of University policy. See the Official Student Handbook for additional information.

Dean of Students/Judicial Affairs

The Dean of Students is directly responsible for administering the disciplinary program addressing student conduct and supervises the Office of Judicial Affairs. The Dean assesses incidents, interviews persons involved and determines what, if any, disciplinary response is needed. The Dean issues disciplinary interventions or recommends appropriate disciplinary action to the Vice President for Administrative Services. The Dean monitors the community service program as a part of behavior modification and ensures that students comply with requirements as directed. The Dean serves as a liaison between faculty and staff and students in matters of conduct and will initiate necessary actions to address such matters in accordance with the policies outlined in the Official Student Handbook and the Code of Conduct.

The Dean of Students is charged with the overall responsibility for the University's Program for discipline and monitoring adherence to the Code of Conduct. The primary focus includes teaching, training, providing guidance and some counseling for all students at the university, with principal attention given to students living on campus. Judicial Affairs also includes the assessment of disciplinary penalties for infractions of policy, behavioral intervention and modification, community service and managing the Administrative Hearing Committee by serving as Chair and through scheduling hearings as necessary.

The Dean manages all aspects of the departmental operational budget in support of the overall student life program. The Dean is required to provide leadership and supervision for office staff. The Dean is a member of the Student Development Leadership Team (SDLT) of student affairs directors and deans, serves on committees, supervises and provides team leadership for special projects and assists with university-wide activities, such as registration, formal academic occasions, and other tasks as directed by the President, and the Vice President for Administrative Services.

Residence Halls

Residential life for students at Hampton University is considered a vital educational experience in community living, largely centered in and evolving from residence hall programs and management. Concerned administrative staff persons under the supervision of the Director of Residence Life and Housing, work cooperatively with resident assistants in developing well-coordinated and integrated, residence hall programs. The residence hall staff, along with student groups, also work to coordinate and integrate life in the residence halls as a means of motivating academic achievement and wholesome group living to promote an "Education for Life".

Off Campus Housing

The Off-Campus Housing Office is located in the McGrew Towers Conference Center (ext. 6746). A listing of housing available in the local community is maintained, and the staff assists students who are seeking off-campus housing.

Director of Residence Life and Housing

The Director of Residence Life and Housing provides visionary leadership that cultivates an educational, student centered living community that attracts and retains students. The Director of Residence Life and Housing oversees all residence life staff and

educational programming and coordinates all administrative operations of residence life. The Director develops and administers policies, procedures, and programs designed to ensure student safety and well-being and enhance student persistence and success. Through the collaboration with multiple departments the Director, along with the residential team, will provide a supportive and safe living-learning environment within the residence halls by creating and maintaining a positive community that is conducive to student success and supports the mission of the university.

The Director also supervises the on campus housing program for all students, working cooperatively with all essential University departments to insure building readiness for the opening of school including the assessment of charges to student accounts. The Housing program includes assessing current needs and projecting future housing trends with evaluations of facilities towards making recommendations for repairs, renovation, and new construction.

The Director of Residence Life and Housing is charged with working cooperatively with the Dean of Students and selected staff members, the primary focus includes teaching, training, providing guidance and some counseling for all students at the university, with principal attention given to students living on campus. The Director serves as a member of the Administrative Hearing Committee.

The Director manages all aspects of the departmental operational budget in support of the overall student life program. The Director is required to provide leadership and supervision for office staff, and assists the residential, graduate and student resident assistants and a cadre of volunteers in several capacities that work in Residence Life & Housing. The Director is a member of the Student Development Leadership Team of student affairs directors and deans, serves on committees, supervises and provides team leadership for special projects and assists with university-wide activities, such as registration, formal academic occasions, conference utilization of residential facilities and other tasks as directed by the President and the Vice President for Administrative Services.

Office Of Student Activities and Director of the Student Center

The Office of Student Activities is located in the Student Center. The Director of Student Activities has the authority and responsibility for coordinating the co-curricular activities of the students, including: (a) providing information for students who are interested in joining campus organizations; (b) assisting all student organizations in planning activities, meetings and projects; (c) planning and developing student leadership workshops; (d) preparing and issuing the Master and Weekly Calendars of Events; and (e) assisting students in scheduling events, securing facilities and in following University procedures for maintaining an effective program of student activities.

The Director is responsible for the overall supervision, operational functions and applications of building policies. The Director serves as advisor to the Student Government Association (SGA), The National Pan Hellenic Council (NPHC), The Greer Dawson Wilson Student LEadership Training Program (SLP), Student Union Board (SUB), and supervises the entire Student Center staff in all areas of programming, including film series, art exhibitions, speakers, craft activities, recreation and special out-of-class projects with faculty members and students.

Title IX Office

Title IX of the Education Amendments of 1972 ("Title IX") protects individuals from discrimination based on sex in educational programs and activities receiving financial assistance from the federal government. Hampton University has adopted an internal grievance procedure providing for prompt and equitable resolution of complaints alleging discrimination and/or harassment in violation of its policy of non-discrimination, adopted in accordance with the various state and federal civil rights acts governing employees and students in education and employment including, Title IX.

The Hampton University Policy on Sexual Discrimination and Misconduct is designed to ensure an environment that is safe and free from sexual discrimination, harassment or misconduct for the members of the Hampton University community.

The Title IX Office at Hampton University and specifically, the Title IX Coordinator, is responsible for:

- Overseeing compliance of Title IX at Hampton University
- Responding and investigating all sexual discrimination, harassment and misconduct complaints, to include analysis of policy, determination of violation, and the filing of detailed reports
- Informing students and employees on the options of filing a formal complaint through the Title IX Office and/or filing of a criminal or civil complaint
- Implementing interim safety measures, which may include, but is not limited to alternative housing arrangements, academic adjustments, no contact orders and referral to campus and local resources
- Meeting with students, faculty and staff to provide training and education on Title IX and the policies, procedures and services at Hampton University
- Evaluating requests for confidentiality
- Working with the appropriate University department, office or division to accommodate persons seeking services and support under Title IX, including counseling and health center services, and campus safety measures with the University Police Department, if necessary,
- Coordinating with local agencies to meet the support needs of persons seeking redress under Title IX, including Transitions Family Violence Services, the Center for Sexual Assault Survivors, appropriate area law enforcement agencies, and area hospitals

The University is committed to fostering a safe environment for victims of sexual discrimination, sexual harassment and sexual violence, and is committed to offering help and support. Victims are encouraged to report incidents of sexual discrimination, harass-

ment or misconduct. To file a complaint of sexual discrimination, harassment and/or misconduct, an individual should contact the Office of the Title IX Coordinator.

The University strictly prohibits retaliation against anyone exercising their rights and privileges under Title IX. More specifically, the University prohibits retaliation against any person who files a complaint of sexual harassment, misconduct, and/or discrimination, participates in an investigation or hearing, or opposes a discriminatory employment or education practice or policy prohibited by this policy, specifically Title IX. The University also prohibits intimidation, threats, coercion or discrimination against individuals who exercise rights and privileges accommodated under Title IX. An individual who believes he or she was subjected to retaliation can file a complaint under these procedures.

Complaints by Students and Employees, including Faculty alleging sex discrimination and/or harassment in violation of Title IX, should be directed to either the Title IX Coordinator or Title IX Specialist, located in 205 Wigwam Building, Hampton University, Hampton

Virginia 23668, (757) 727-5426. For additional information regarding Title IX, refer to the following website: titleIXoffice@hamptonu.edu.

Title IX of the Education Amendments of 1972
No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. ~ 20 U.S. Code § 1681

Student Health Center

The Health Center's mission is to provide evidence- based, culturally competent health care. All students are provided equal access to care. The Center is staffed with board-certified physicians, a family nurse practitioner, medical laboratory technician, a certified health educator, and a wellness care coordinator along with administrative and medical support personnel. The center is open for current students **Monday through Friday 8:00am - 5:00pm during academic semesters and summer sessions.** Same day scheduled and advanced scheduled appointments are available. The telephone number to the Health Center is (757) 727-5315. Our email address is healthcenter@hamptonu.edu

Emergencies. After hours and on weekends there is a nurse on call 24/7 (except winter break) to answer questions and concerns, to page the on call nurse dial (757) 727-5259. For life threatening emergencies, call Campus Police to dispatch emergency medical services (EMS) by dialing (757) 727-5666.

A current student ID (validated with a legible current term sticker) is required at the time of the visit. We provide basic outpatient services to include routine care of colds/flu, sore throats, urinary tract infections, upset stomachs, minor sprains or injuries, male and female reproductive health care and screenings, family planning, TB screenings, specialist referrals, health education, and laboratory services. Students taking behavioral and specialist prescription medications may have his/her provider send refills or transfer those prescriptions to Hampton Health Mart Pharmacy. Call Hampton Health Mart Pharmacy at 757-864-0380 for more information about free, same day delivery on campus.

Missed classes. The Health Center will provide a visit note with the date and time of the visit for students seen by a provider. Students are required to request a note at the time of the visit. Acceptance of the visit note is at the discretion of the professor(s). Medical excuses from outside providers are to be submitted directly to the professor(s) or to the Health Center. The Health Center will verify medical excuses.

Billing Information. There is no co-pay or fee to see a medical provider. However, CHARGES occur for laboratory testing like a rapid strep. test for a sore throat, prescription medication or other services. Payment is required at the time of services for in- house charges. Options for payment are Cash , Credit Cards (Visa/MC, Discover, AMEX), or charges may be billed to the student account. We do not bill health insurances. A WALK OUT STATEMENT is provided at Check Out that can be used to submit a claim for health insurance reimbursement. Students should bring a copy of the front and back of their health insurance card should prescriptions, referral lab services, radiology services or referral to a specialist be required.

Health Insurance Requirement. All full time Undergraduate and International students must have health insurance coverage and they are required to enroll in the Student Health Insurance Plan. Graduate students have the option to purchase coverage if not already provided through the University. Policies must cover students for outpatient office visits, laboratory services, mental health services, emergency room visits, prescription drug coverage, and inpatient hospitalization while in the Hampton Roads area. The coverage must remain in effect during the entire period of academic enrollment. Undergraduate students must submit an online waiver by September 1st of the academic year if they have health insurance coverage from home they would like to continue. **Students who do not submit a waiver will be enrolled and billed for the Student Health Insurance Plan.**

Medical clearance for all full-time students is required. The University medical clearance requirements are disseminated to all admitted students in the enrollment guide. Med + Proctor is the electronic medical clearance platform used to clear students. The platform is HIPPA and FERPA compliant and confidential medical information will remain secure. You will need an active **@my.hamptonu.edu** email address to register for medical clearance through the Med + Proctor site. Please go to https://secure.medproctor.com in order to complete the medical clearance process

The forms must be uploaded to the Med + Proctor site.

Email questions to: help@medproctor.com. **Students will not be allowed to move into the residence halls or attend classes until medically cleared.** Marching Band and Cheer Squad students must submit an annual physical exam form to the Health Center prior to participating in activities for the academic year.

Influenza Policy. The University makes every effort to limit the impact of influenza on our campus. Vaccination is the first step in prevention. Unless there are contraindications, we strongly encourage all students to be vaccinated. We recommend vaccination prior

to arrival on campus when available. **The Center for Disease Control and Prevention (CDC) recommends everyone over the age of six months receive influenza vaccination annually.** Once a student is diagnosed, the University policy requires isolation from the campus community for 3-5 days or until fever free for 24 hours without the use of fever reducing medications, like Tylenol or Advil. Fever is defined as a temperature over 100.4°F / 38°C. We require residential students to return home/move off campus during the course of their illness, as they will not be allowed to attend class. Students must obtain clearance from the Health Center before their return to campus. Students (minors with parental consent) may elect to stay with local family and friends during their convalescence. Parents of residential students will be notified by the Health Center accordingly and are asked to make arrangements for their student. Close contacts, such as roommates, may present to the Health Center for consideration of secondary prevention with antiviral medications to decrease the risk of influenza transmission.

Patient Privacy. The Health Center is compliant with current federal HIPAA rules and regulations of protected health information. A copy of the Patient Privacy Rights is available at the Health Center. All parents of minors (under the age of 18 yrs.) must submit a parental consent for services. For those students age 18 and over we cannot discuss your care with anyone (parents, friends, etc.) without the student's written consent. The only exceptions are life threatening situations, or when required by law.

For additional information or to make an appointment, please call the Health Center at 757-727-5315.

Insurance Program

The University offers a low-cost insurance program. All students will be automatically enrolled in the University sponsored Student Health Insurance Plan and the annual premium will be billed to the student account, unless proof of adequate health insurance coverage is submitted. Students who already have health insurance for the entire academic year and meet the above requirements must submit a waiver by the due date, and the waiver request must be approved to avoid being enrolled in the Student Insurance Plan. It is the responsibility of the student to verify whether or not the charge has been billed to their student account.

Student Success Center

The Freeman and Jacqueline Hrabowski Student Success Center (formerly the Assessment Center) provides tools that help students create a healthy, well-rounded experience at Hampton University. Utilizing evidence-based educational practice, such as administering the College Student Inventory to help new and transfer students identify their occupational themes and preferred academic major(s), and deploying an Individual Plan for Academic Success (I-PASS) to regularly monitor student performance, the Student Success Center is making significant contributions to Hampton University's improved six-year graduation rate. In addition to its office located beside the National Cemetery, the Student Success Center has a satellite office in 300 Armstrong Hall to house two Student Success Advisors.

Tutorial Services & Supplemental Instruction

The Student Success Center provides free tutorial services Monday – Thursday from 6:00 – 10:00 pm, Saturday from 10:00 am – 2:00 pm, and Sundays from 4:00 – 10:00 pm in the Harvey Library 5th Floor Electronic Classroom in Math, English, Chemistry, Biology, History, Physics, Accounting, Economics, World Language, Computer Science, Psychology, Journalism and Communications, and Humanities. During students' absence from the main campus in response to the COVID-19 outbreak, our Tutorial Center is currently providing "virtual tutoring" via AppointmentQuest and BlackBoard Collaborate Ultra, which enables tutors to share notes, PowerPoint presentations, or their screens with tutees and will enable SSC staff to track the time and duration of tutorial sessions. Students are reminded that tutors cannot take the place of course instructors, but will provide additional assistance to help students navigate the transition to working in an online environment.

Since the 2016-17 academic year, we've provided Supplemental Instruction (SI), an evidence-based form of peer-assisted group study that equips students to integrate concepts from historically difficult courses into long term memory by reviewing content in concert with others. The benefits of Supplemental Instruction are discussed in Peterfreund et al., and Rath et al., both of which examine the impact of SI on underrepresented minority students' performance at San Francisco State University. Over a six year period, participants were found to be more likely to pass the corresponding courses than those who did not receive supplemental instruction. In fact, since 1973, data consistently demonstrates that students who regularly attend SI sessions earn a half to a full letter grade higher and earn D's, F's, and withdraw from courses less frequently than students who do not attend SI sessions.

The Academic Coordinator collaborates with faculty from the Cancer Research Institute as well as the Chemistry and Physics department chairs to identify potential SI leaders from among their graduate students. All SI leaders are certified in the University of Missouri-Kansas City's International Center for Supplemental Instruction methodology. Currently, SI Leaders conduct bi-weekly peer-led group study in Organic Chemistry, Physics, and Calculus. To serve as SI leaders, students must have previously taken the course, received a grade of B or better, attend lectures during the current semester, take notes, read the text, conduct twice weekly SI sessions throughout the semester and additional review sessions before exams.

Intrusive Advising Initiatives

Student Success Advisors, assigned to each of the seven Schools, provide academic coaching, intrusive advisement, mentoring, and mid-term deficiency counseling for all Hamptonians, enabling the Success Center staff to institute evidence-based interventions to improve the percentage of students in good academic standing, optimize the number making satisfactory progress towards graduation, and significantly increase the six-year degree completion rate at Hampton University.

In addition to providing targeted interventions for transfer and probation students, as well as registration support and career exploration for undecided/undeclared majors to increase their persistence and timely graduation, the Student Success Center

empowers students to accept responsibility for their education and enhances their academic performance through tutoring, counseling and intrusive advising. Specifically, Student Success Center partners with the Student Support Services program to facilitate Academic Success Workshops, a Financial Literacy Series, and a Career Development Series.

Academic Success Workshops

Designed to reduce the number of students who find themselves in academic jeopardy, Academic Success Workshops include Test-Preparation Strategies for First-Year Students, the Do's & Don'ts of Academic Integrity, Tips for Success in Online Classes, Developing Effective Writing Skills, Building Rapport with Faculty and Staff, and Embracing Time Management.

Financial Literacy Series

The Financial Literacy Series includes Navigating the Financial Aid Process, Budgeting & Managing Your Money, and Understanding Debt, Credit, and Identity Theft.

Career Development Series

To prepare graduates for meaningful employment, the Career Development Series includes an annual Leadership Development Institute, Fall and Spring Career Fair Prep and Resume & Networking Seminars, as well as workshops on Navigating LinkedIn, Writing Effective Cover Letters, and Surviving Your First Year on the Job.

Targeted Interventions

The Student Success Center provides a series of targeted interventions for undeclared and undecided majors, as well as for non-traditional students. The Director of the Student Success Center serves as the Chairperson for Undecided majors, including incoming (new) Transfer Students. We provide one-on-one counseling, assessment tools, workshops and programs to assist students in declaring a major. Please note that for some majors, students are unable to declare a major without meeting the departmental admission requirements. To meet the unique needs of non-traditional students returning to school after working and/or managing life's responsibilities, the Student Success Center provides tools to help this population adjust to the new demands of academic rigor. We have planned workshops and programming that will focus on balancing competing priorities, adjusting to traditional college life, and retooling for academic success.

Career Center

The Hampton University Career Center is Located on the first floor of the Multi-Use Building. The office assists students in developing meaningful career goals, whether they plan for employment or to attend graduate school. Our objective is to begin the professional development process during the student's freshman year and continue to enhance their career development with internship and **cooperative education** experiences, throughout their matriculation at Hampton University. By the time students become seniors, they will have the skill sets and experience to have a competitive advantage in the global marketplace. **The Career Center provides a variety of virtual services for students when they are away from campus.**

A valuable resource available to students is the **Symplicity** online job board offered by the Career Center. Students can use this platform to upload various documents, such as resumes, cover letters, and transcripts for review by Career Center Staff and employers. Employers use this system to offer jobs, internships, and schedule interviews with students.

The Career Center hosts two career fairs annually; spring and fall. Both events present an opportunity for business, government agencies and institutional representatives, from all over the country, to have the opportunity to acquaint students with their organizations, while recruiting for interns and potential full-time employees. Another annual event is the Graduate and Professional School Fair. Representatives from graduate and professional schools around the country are invited to attend. Students are encouraged to gather information on the various offerings of these schools concerning graduate studies, fellowships, special programs and scholarships.

The Career Center is committed to assisting students in selecting and identifying a career. We connect students to resources that will enable them to make their career vision a reality. The Strong Interest Inventory is a resource designed to help students narrow their career fields. Students complete the assessment online and this makes it easy for them to finalize their career goals and objectives. Also, students are taught the process of transitioning from college to the workplace through a series of scheduled seminars and workshops offered by Career Center staff and employers.

The Career Center houses a computer laboratory. A variety of career development books, resume and interviewing guides are available. The Career Center assists students with researching resources that can help them with their career goals. All of the Center's resources are utilized to facilitate and enhance the students' professional development. Students are also taught the process of transitioning from college to the workplace, through a series of scheduled seminars and workshops.

The Internship/Cooperative Education Program

The Career Center houses the Internship/Cooperative Education Program. This combines the student's academic studies with supervised real world work experience and learning. Both programs allow students, from all majors, the opportunity to integrate theory learned in the classroom with practical application and skills development while on the job. The student develops personal and professional maturity that helps them build character and ethics of the highest standards. For the co-op/internship to qualify for academic credit, the position must provide a learning experience that is directly related to the student's major and receive approval from the dean of their school. The student must file an application and pre-register for the appropriate class.

Hampton University Career Center offers alumni free lifetime career services. We are among a small number of colleges offering these services. Alumni may take advantage of signing up to use the Handshake e-recruiting services, attending career fairs, seeking help with cover letter or resume writing, mock interviews and attending the company sponsored information sessions and workshops that are held on campus, during the school year.

Freshman Studies

Hampton University's Office of Freshman Studies helps ease the transition from high school to college by providing services to first time new students entering college. Our objectives are to provide academic support; career, and social/personal counseling; academic advising during summer months and assistance with registration. Freshman Studies also focuses on students who are classified in the following areas: academic probation, reduced workload, undecided/ undeclared majors; and Hampton academic scholarship recipients. These categories are monitored bi-weekly through individual counseling and bi-weekly seminars that are held in conjunction with the Student Success Center.

University 101

Hampton University introduced University 101 (The Individual and Life Program) in 1989. University 101 is a required orientation course designed to improve the quality of experience for beginning freshmen and transfer students with less than 30 credit hours. This course is designed to provide freshmen with a common core of experiences in order to facilitate their transition into the college environment. The course consists of a coordinated series of unit topics whose subject matter and mode of presentation are designed to unite students in such a way that their experiences at Hampton University become meaningful, and fulfilling. The students, mentors/instructors and student assistants meet twice a week. The presenters include administrators, professors, scholars from other student affairs departments or institutions, and prominent individuals with particular expertise in one or more of the course topics.

New Student Orientation Week

Entering freshmen and transfer students are required to participate in our New Student Orientation program one week prior to the beginning of classes. The primary goal of the orientation program is to assist new students in the transition from high school to the University, or from another institution to Hampton University. All incoming freshman are paired with a student mentor who is a member of the Greer Dawson Wilson Student Leadership Program. This begins the transitioning process through structured activities lead by Student Leaders. All freshman receive a new student orientation packet, a tour of the campus and are encouraged to interact with their peers. In addition, Student Leaders host several events geared toward student traditions here at Hampton University.

Intramural Sports Program

I. The Office of Intramural Sports Program is a part of the Student Affairs Division. The Intramural Sports Program is comprised of three separate program areas: Intramural Team Sports, Club Sports, Fitness and Wellness. Each of the program areas strive to fulfill campus recreational needs of students, faculty and staff.

II. The Office of Intramural Sports Program offers a wide variety of sports and recreational opportunities. Both are designed to support and enrich the campus life environment. It is the desire of the Intramural Sports Program that participants begin and learn to practice lifelong fitness, nutritional and health habits.

III. The Intramural Sports Program staff offer employment opportunities which allow students to assist with the operation of the program each year. Through employment, students receive first hand managerial experience and transferable skills that can be applied to "real world" challenges. These opportunities are positions of leadership, which enhance the student's social experience and solidify Hampton University as a pioneer in the areas of student development.

IV. The Office of Intramural Sports Program meets the recreational needs of the student population at Hampton University while contributing greatly to the betterment of the university experience. Hampton University is fully committed to the morale, welfare and recreation of its students, faculty and staff.

V. Hampton University's Office of Intramural Sports Program offers an array of team intramural sports designed to meet the competitive and recreational needs of the Hampton University's students. Programs range from the traditional to the non-traditional. Participants organize teams and individuals may join through a free-agent program. To be eligible to participate in the Intramural Sports Program, students (undergraduate and graduate) must be full-time students and faculty and staff must be current employees at Hampton University.

VI. The Sport Club Program is designed to provide additional opportunities for members of the Hampton University community to learn a new sport or excel in a traditional sport, make new friends and compete against other universities club teams. Everyone, regardless of experience, is welcome to participate. To be eligible to participate in the sport club program, students (undergraduate and graduate) must be currently enrolled at Hampton University.

VII. The Office of Intramural Sports Program offers a group of diverse fitness classes from beginners to advance exercise. The fitness and wellness program will include such areas as Yoga, Zumba, Pilates, MixxedFit, Aquatics and bodybuilding.

The Student Counseling Center

The Student Counseling Center is staffed by licensed mental health clinicians who provide confidential services to assist students with emotional distress and mental health challenges. Individual and group counseling services are offered to students to assist with challenges such as normal adjustment to college, relationships, home and family difficulties, peer pressure, self-esteem, anger control and stress management.

In some instances, participating in group therapy might be a more effective approach to dealing with a presenting issue. The SCC facilitates group counseling sessions as a way to connect with other students while addressing specific issues. Some groups may include stress management, coping with emotions, and dealing with the transition to college.

Students are required to consent to participate in mental health services. Information regarding student clients who are 18 years of age and older is not disclosed to third parties without their written

consent. Exceptions occur when there is a life threatening circumstance or a decline in mental status that is a safety threat, significantly impairs functioning, reports of child or elder abuse, or court mandated. Students who are under 18 may receive services only after a parent or guardian signs a consent to treatment form.

The SCC also provides Outreach services, which includes classroom, campus-wide and residence hall presentations to help students cope with the demands of college. Outreach services aim to provide educational and awareness programming surrounding mental health topics.

When necessary, students are referred to community mental health providers, including outpatient mental health clinicians and psychiatric hospitals. The Student Counseling Center oversees student peer counseling services such as the Peer Counselors and Summer Peer Helpers. These student-led services are designed to provide year-round direct services in the form of listening sessions to students undergoing challenges, whether academically, emotionally, or socially.

Students may schedule appointments by contacting the Student Counseling Center at 757-727-5617. Emergency walk-in appointments are provided Monday-Friday from 10:00am-4:00pm. All other visits are by appointment only.

After-hours emergency service is available by contacting the University Police Department, which in turn contacts the on-call mental health clinician..

TRIO Programs

STUDENT SUPPORT SERVICES

Student Support Services is a federal TRIO Program funded through the United States Department of Education to increase the retention rates of eligible students, improve graduation rates among our participants, and to produce alumni equipped to matriculate to graduate school. Students in our program have access to a range of services designed to help them successfully navigate their transition to Hampton University, to include:

- Counseling for academic, career, personal, social, and financial concerns,
- Tutoring to improve students' academic performance in a range of disciplines,
- A Peer Mentor Program designed to help students successfully navigate their transition to Hampton University and the larger community,
- Financial Literacy initiatives,
- Limited work-study opportunities for eligible, active participants with demonstrated unmet financial need,
- Access to an annual Graduate & Professional Schools Tour, and
- Social excursions designed to broaden the educational and cultural experience of participants.

To qualify for participation in Student Support Services, an applicant must be a citizen or permanent resident enrolled at Hampton University, and meet ONE OR MORE of the following requirements established by the United States Department of Education:

- The student's family's TAXABLE income for the preceding year did not exceed 150% of the federal poverty level amount
- The student is a first-generation college student (neither residential parent nor legal guardian has earned a bachelor's degree)
- The student has a documented physical or learning disability.

RONALD MCNAIR SCHOLARS

The Ronald McNair Post-baccalaureate Achievement Program is a federal TRIO Program funded through the United States Department of Education to increase research activities and improve doctoral degree enrollment and completion rates among underrepresented students. As a member of the McNair Scholars program, successful applicants will have access to a range of services designed to help them successfully complete a post-baccalaureate degree.

Hampton University's McNair project enjoys the highest level of support from the Chairpersons of our STEM curricula. As a result, several of the university's leading principal investigators have identified incredible STEM research opportunities to effectively prepare every McNair participant for graduate study. In addition to being paired with faculty mentors at Hampton University during the academic year and at our partner institutions for their summer research, students receive a $1,000 stipend per semester, lab or text fees to conduct research with these faculty members, a $1,200 stipend to support travel and lodging expenses for their summer research, plus funds to support student presentations of their published research at educational conferences.

EDUCATIONAL TALENT SEARCH

Educational Talent Search (ETS) is a federally-funded program designed to annually assist 810 participants to complete high school and continue on to postsecondary opportunities. Two-thirds of all participants must be low-income (as defined by U.S. Department of Education guidelines) and/or potential first generation college graduates (neither parent has a 4 year college degree).

Students are recruited from designated middle and high schools in Hampton City Schools. Services include, but are not limited to, tutoring, SAT prep classes, college and career field trips, SAT and college fee waivers, and assistance with the financial aid process. Additionally, ETS hosts free summer, after school, and (select) Saturday programs that expose students to STEM and career preparation opportunities, all free of charge to participants. ETS invites HU students to work/volunteer as tutors or mentors throughout the academic year. For additional information, please call the ETS office at 757 727-5607 or via email at ets@hamptonu.edu.

UPWARD BOUND

Upward Bound (UB) is one of seven federal TRIO programs funded by the Department of Education to increase college access among low–income and potential first-generation college students. Hampton University's UB program is designed to generate the skills and motivation necessary to improve secondary school graduation, college matriculation, and postsecondary degree completion rates among Newport News Public School students currently enrolled at

An Achievable Dream High School, Denbigh High School, Heritage High School, and Warwick High School.

The Hampton University UB program provides a suite of ongoing intrusive interventions, to include:

- Academic tutoring
- Advice and assistance in postsecondary course selection
- Preparation for successful completion of college entrance exams,
- Dissemination of information on federal Pell grant awards, loan forgiveness, and scholarships
- Assistance completing applications for federal student aid, as well as guidance with secondary school reentry

To further support advanced diploma completion and increase post-secondary enrollment, Upward Bound staff conducts a six-week non-residential Summer Academy for ninth – twelfth graders with an emphasis on increasing student achievement. Freshmen and sophomores are provided instruction in Math, Science, English, and World Language with course content based on state assessments and PSAT objectives. Juniors and seniors receive instruction in those same subjects with course content based on state assessments, Accuplacer test objectives, and preparation for the SAT, ACT, and Advanced Placement exams.

For more information about the Upward Bound program, contact the office at 757.727.5307 or via email at upwardbound@hamptonu.edu

University Testing Services

The Office of Testing Services at Hampton University serves as a regional test center that provides for the testing needs of the University and the Peninsula/Tidewater area. This office administers both local and national tests.

The program includes testing and awarding of credit by examination through the College-Level Examination Program (CLEP). Credit for specific CLEP examinations is accepted by the University and applied to degree requirements. A student who has failed a course in class must receive approval from his/her advisor to take a CLEP examination to earn credits for that specific course.

Advanced Placement Credits (AP) earned at the high school level should be sent directly to the Registrar's Office. The Office of Testing Services is not involved in the placement of these credits on a student's transcript.

International Baccalaureate Credits (IB) earned at the high school level should be sent directly to The Office of Testing Services. The information will be translated into the appropriate number of Hampton University credits.

Entering freshmen may earn advanced course placement in English and mathematics through the University's Testing Program. The Office of Testing Services evaluates each entering freshman high school academic record (course grades, SAT/ACT scores, cumulative grade point average, and honor courses) to identify outstanding performance in English and mathematics courses throughout a student's high school career.

Students identified for Hampton University Advanced Placement in English will register for ENG 102 Honors during the semester they are placed. The freshman MUST complete the course with a grade of "C" or better to be eligible for the Advanced Placement credit of three (3) credit hours for ENG 101. If the freshman does not satisfactorily complete ENG 102 Honors, no credit will be awarded by the Hampton University Testing Program.

Students identified for Hampton University Advanced Placement in mathematics will be placed in the highest level of math indicated by major based on SAT/ACT scores and performance in the required prerequisite high school courses. The freshman MUST complete the course (MAT 117,118, 130, or 151) during the semester of placement with a grade of "C" or better to be eligible for the advanced placement credit for the preceding or prerequisite math course. If the freshman does not satisfactorily complete the identified advanced math placement course, no credit will be awarded by the Hampton University Testing Program.

Advanced Placement Credits awarded through the University's Testing Program are applied to the student's degree requirements.

National Level Testing Programs

The national level testing program includes administering and providing registration information for examinations such as the Graduate Record Examination (GRE), and the Law School Admission Test (LSAT). Other national level examinations that are administered include the American College Testing-Assessment (ACT), and the Scholastic Aptitude Test (SAT).

Disability Services

Hampton University is committed to a policy of ensuring that no otherwise qualified individual with a disability is excluded from participation in, denied the benefits of, or subjected to discrimination in University programs or activities due to his or her disability. The University is fully committed to complying with all requirements of the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973 (Section 504) and to providing equal educational opportunities to otherwise qualified students and employees with disabilities.

The Director of Compliance and Disability Services provides and coordinates accommodations, support services and auxiliary aids for qualified students with disabilities and qualified employees with disabilities. Students and employees in need of disability services should contact the Director of Compliance and Disability Services, located in the Student Success Center, Hampton University, Hampton, Virginia 23668, (757) 727-5493. Students should refer to the Official Student Handbook and the University website at www.hamptonu.edu/compliance for more detailed information regarding disability services and forms used for requesting accommodations. Employees should also refer to the University website.

Student Government Association

The Student Government Association of Hampton University has the purpose of uniting the student body into one smoothly functioning organization. The Student Government Association shall be recognized as the official body representing the students of Hampton

University, taking precedence over all other student organizations in matters relating to the general welfare of the student body. As the recognized student governing agency, the Student Government Association shall exercise the right, either upon its own initiative, or upon the initiative of student, faculty or administrative individuals, groups, or organizations, of investigating general problems of student life and activity in the University community, and of making reports and recommendations to officials and official bodies of the University. The Student Government Association membership consists of the Student Legislature, Student Executive and the Student Judiciary. (All persons interested in the Student Government Association should refer to the Student Government Constitution for complete information).

The Student Judiciary

The Student Judiciary is one of the three branches of the Student Government. Its purpose is to act in cooperation with the University Administration, as the judicial organization of the student body at large, and through the discharge of its duties, attempts to increase students' responsibilities for their own lives at Hampton University. The Student Judiciary follows the operational procedures as per the Student Judiciary Referral Form.

- The Dean of Students reviews the referral form and makes a recommendation to the Vice President for Administrative Services within 72 hours. Once it has been determined that the matter may be referred to the Student Judiciary Committee, the students may elect to have their issues adjudicated by administrators rather than by their peers.
- The Student Judiciary Committee is empowered to adjudicate delegated issues between students and infractions of University policy. The committee will hear inner-room visitation violations, residence hall noise complaints, community living infractions, roommate issues, dress code violations, organizational conflicts, graffiti, throwing snowballs, eggs, or other objects, gambling, smoking, lewd behavior, disruptive behavior (student to student), obscene language, and demonstrations. Discipline consequences may include community service, letter of warning, learning outcomes projects (classroom presentations and essays.)
- Violations involving drug use, academic standing, criminal offenses, sexual misconduct and assault will not be heard by the student judiciary. Hearings with possible outcomes of expulsion and suspension will not be heard by students.
- Students should refer to the SGA constitution, Article IV-Student Judiciary Committee and the Official Student Handbook for more detailed information regarding policies, procedures and rights.
- In the event that there is a conflict between students regarding which judiciary body to hear the case, the Dean of Students will make the determination.

All students should be familiar with the Student Government Constitution, which describes all aspects of the Student Government.

Student Representative to the Board of Trustees Any regular student in good standing who is a rising senior, that is, a student who will become a senior in good standing, will be eligible for election for a one-year term, the expectation being that this person will serve throughout his or her senior year. Such persons are to be elected by the student body. The election of the above Student Representatives should be carried out by secret ballot, under the direction of the Student Government Association and the Office of Student Activities. Should a Student Trustee cease to be qualified for the position, the officer will be removed from office and replaced at the discretion of the Director of Student Activities with the approval of the Student Development Leadership Team (SDLT).

The Student Union Board

The Hampton University Student Union Board is a student-run organization that coordinates events ranging from field-day competitions and films to comedy shows and cultural showcases. Our mission is to provide the Hampton University community with a series of diverse cultural, recreational, social, educational, and entertainment programs. The Student Union Board is funded in part by the Greer Dawson Wilson Student Leadership Training Program.

SUB is open to everyone. There is no experience necessary, just an enthusiastic attitude about jumping in and learning. This is an organization that you will get as much out of it as you put in. The more events you attend and volunteer, the more responsibility you will have along the way.

Women's Caucus

All female students are eligible to become members of the Women's Caucus. Its purpose is to create and maintain a sense of unity and fellowship among women students. The officers of the Senate's Cabinet are elected by the entire women's student body, while the other members are chosen from each woman's residence hall and from the off-campus women's council. The professional staff of the Office of Student Activities serves as advisors.

Men's Caucus

All male students are eligible to become members of the Men's Caucus. Its purpose is to create and maintain a sense of unity and fellowship among male students. The officers of the Senate's Cabinet are elected by the entire men's student body, while the other members are chosen from each men's residence hall and from the off-campus council. The professional staff of the Office of Student Activities serves as advisors.

Hampton Man Initiative (HAI)

The Hampton Man Initiative is an organization that fosters the development of fellowship, cooperation, respect, brotherhood and scholarship among men. HAI consists of Resident Assistants, officers and representatives from each male residential facility, serves as a coordinating committee to provide programs and activities on behalf of the membership in the residence halls and throughout the campus. All men of Hampton University are members. Information about participation in the Hampton Man Initiative is available in the Office of Judicial Affairs.

International Students Association
The International Students Association was organized in 1973 to provide a social, intellectual and recreational body for international students attending Hampton University. Citizens of other countries, including the U.S. Virgin Islands, are automatically members unless they decline to participate. Native Americans may participate in this organization as associate members. The Advisor to the International Students Association is designated by the President of Hampton University.

Organization of Graduate Students
The Organization of Graduate Students is the official body representing all graduate students of Hampton University, serving as a liaison between the graduate faculty/staff and graduate students. The organization promotes academic excellence in all areas by expressing concerns relative to the Graduate College and by impressing upon the graduate/undergraduate students and the surrounding community the existence of the Graduate College through recruiting, attending conferences and sponsoring educational events reflecting the constructive concerns of the graduate student body. Membership is open to all registered graduate students in good academic and social standing.

Service Learning and Leadership Organizations
Service learning and leadership organizations play a vital role in the holistic development of Hampton University students by providing community service experiences and interpersonal and leadership skills training opportunities. Service learning and leadership organizations may be associated with departments at the University that provide special services and support to the University and local-area communities. Examples of these organizations (described elsewhere) include the Dr. Greer Dawson Wilson Student Leadership Development Program (Student Activities), the Peer Counselors and Summer Peer Helpers (Counseling Center) and the Resident Assistants Organization (Director of Residence Life & Housing).

Dr. Greer Dawson Wilson Student Leadership Training Program
The Dr. Greer Dawson Wilson Student Leadership Training Program has three main purposes: (1) to orientate freshman students to Hampton University; (2) to offer service to the Hampton University community, whether it is ushering or the presence of Student Leaders at a University event or service project; and, (3) to provide leadership training to students in the program. The development of student leadership skills encompasses the cultivation of communication, time management, interpersonal skills, in addition to encouraging and providing the opportunity for participants to learn more about themselves. The various services to the University, which afford Student Leaders opportunities to apply that which they have learned in the program, are outlined in the Student Leader Handbook.

Student Leader Responsibilities: The position of student leader brings with it numerous responsibilities. Student leaders are involved in every facet of the University program from freshman orientation to senior week festivities.

Resident Assistants Association
The Resident Assistants Association is comprised of the body of students who serve as Resident Assistants in the residence halls. The Association works closely with the Coordinators of the Resident Assistants Program and the Director of Residence Life and Housing. The membership helps to foster the development of leadership, collegial relations and other learning activities for the Resident Assistants. The Association encourages individuals to aspire to the highest ideals and expectations for persons who serve in residence life, and who may desire to pursue Student Affairs and Student Development as professionals. This is accomplished through providing exposure to professional organizations, department literature, professional association journals and publications and participation in local, state, regional and national conferences.

Student Recruitment Team (Admission)
The purpose of this organization is to coordinate and conduct all campus tours for prospective students and parents, to assist the Office of Admission with campus visitation programs and to encourage members of the student body to visit their high schools and tell of their Hampton University experiences. Membership is open to those students who are interested in student recruitment and who attend the annual training sessions conducted by the Office of Admission.

Honor Societies

Accounting Honor Society
The purpose of this organization is to serve as a goal of achievement for accounting majors, to encourage a high level of achievement and to serve Hampton University colleagues and members of the community. Membership is open to all accounting majors who have completed six credit hours in accounting and who have a 3.000 overall grade point average and a 3.000 in accounting.

Chi Eta Phi Sorority, Inc.
Chi Eta Phi Sorority, Inc., is a national organization of registered and student nurses, founded at Freedman's Hospital in Washington, D.C., in 1932. It now has chapters throughout the United States and in Africa. Tau Beta Chapter was organized at Hampton University on May 1, 1976, with purposes of:

1. upholding the principles of character, education and friendship;
2. encouraging the pursuit of continuing education among members of the nursing and health professions;
3. having continuous recruitment for nursing and health professions;
4. developing working relationships with other professional groups for the improvement and delivery of health care services;
5. identifying a corps of nursing leaders within the membership who function as agents of social change on the national, regional and local levels; and
6. stimulating a close and friendly relationship among the members.

The undergraduate chapter, Tau Beta is composed of nursing students who demonstrate excellence in theoretical knowledge, practical application, leadership and scholarship. Anyone may join who has a 2.50 overall grade point average.

National Society of Scabbard and Blade

The purpose of Scabbard and Blade is to raise the standard of military education in colleges and universities and to encourage the essential qualities of good and efficient officers. Membership is by election only. Active members are chosen from outstanding cadet officers of Military Science (AROTC, NROTC).

Psi Chi Honorary Society

Psi Chi is a national psychology honor society. The purpose of this organization is to advance the science of psychology and to encourage, stimulate and maintain scholarship of the individual members in all fields. Anyone may join who has taken nine credit hours in psychology and has a 3.000 overall grade point average and a 3.000 average in psychology courses.

Kappa Delta Pi Education Honor Society

Kappa Delta Pi, International Honor Society in Education, founded in 1911, was established to foster excellence in education and promote fellowship among those dedicated to teaching. The founders chose the name from the Greek words to represent knowledge, duty, and power. Today, it comprises 582 chapters and more than 45,000 members. Albert Einstein, George Washington Carver, Eleanor Roosevelt, and Margaret Mead are just a few of the historically known members. Current renowned members include Barbara Morgan, Alfie Kohn, Lisa Delpit, Andy Hargreaves, James Banks, and Howard Gardner. To date, more than 1,200,000 educators worldwide have been inducted into this international honor society.

Kappa Tau Alpha Society

Kappa Tau Alpha Society is a national society honoring scholarship in journalism. The Hampton University Chapter is organized for the recognition and encouragement of scholarship and good character among students enrolled in the School of Journalism and Communications at Hampton University.

Sigma Tau Delta International English Society The purpose of the society shall be literary, educational and charitable, to promote good fellowship and high standards of academic excellence. Membership is open to all English majors with an overall 3.000 grade point average and who have completed the college courses in English beyond the freshman requirements.

Sigma Theta Tau International Nursing Honor Society

The Hampton University Chapter of Sigma Theta Tau International Nursing Honor Society was chartered Delta Iota Chapter March 27, 1980. The Honor Society was organized to:

1. recognize superior scholastic achievement and leadership qualities,
2. foster high professional standards,
3. encourage creative work, and
4. strengthen commitment to the ideals of the profession of nursing.

Membership consists of undergraduate and graduate students, faculty and community leaders. Membership is based on superior scholastic achievement, evidence of professional potential, marked achievement in the field of nursing, and peer evaluations. Students enrolled in Hampton University's School of Nursing who have completed at least one-half of the required curriculum for the baccalaureate or graduate nursing program may be considered eligible for membership if they have a 3.00 cumulative nursing grade point average. Selected graduate nurses with a baccalaureate or higher degree are also eligible for membership within national guidelines for leadership and creativity.

Upsilon Pi Epsilon

Upsilon Pi Epsilon, the honor society for the computing sciences, was first organized at Texas A&M University, College Station, Texas, in 1967. The goals of the society include recognition of outstanding talent, promotion of high scholarship, and the encouragement of individual contributions to society through computer science. The Gamma Chapter of Virginia of Upsilon Pi Epsilon was chartered at Hampton University by the national organization in May 1990. Membership is offered to undergraduate Computer Science and Computer Information Systems majors who have completed 64 credits, including 18 credits of computer science core courses with a 3.000 overall grade point average.

Who's Who Among Students In American Colleges And Universities

The students recognized in "Who's Who" each year are nominated from colleges and universities. Their selection is based on the following criteria: the student's scholarship, cooperation and leadership in academic and co-curricular activities, citizenship and service to the school, and promise of future usefulness. Hampton University students are chosen by a student-faculty committee appointed by the President of the Student Government Association and approved by the Vice President of Student Affairs.

Campus-Wide Activities

The Calliope Literary Society

The purpose of this organization is to promote scholarship, the mastery of written expression, academic achievement, fellowship and citizenship among those specializing in English through social and cultural activities. Membership is open to English majors or a student who has taken six or more credit hours of coursework above the 101-102 level within the English Department. A member must also have at least a 2.000 cumulative grade point average.

The Debate Team

The Debate Team is a University-sponsored organization that competes on the intercollegiate level within the American Debate Association (ADA). Debate Team members debate "the best solution to a problem, the best representation of value, and the most useful definition of facts." The team travels throughout the school year to participate in tournaments with other college teams.

Forensics

The Forensics Team is a University-sponsored organization that competes on the intercollegiate level within the American Forensics Association (AFA). Forensic team members perform various pieces of poetry and prose, along with dramatic interpretations and public speeches on particular topics. The team travels throughout the school year to participate in tournaments with other college teams.

Hampton University Players

Participation in the Hampton University Players is designed to give students experience in theater management production and organization. Those students with interests and abilities in acting, directing, designing, management and playwriting will find opportunities for expression and growth. Training and experience in this activity provide creative outlets on both professional and non-professional levels.

Opera Theater

Opera Theater provides students with an opportunity to develop their talents in the area of voice and acting through the performance of operatic roles. Workshops enhance students' fundamental knowledge of stage directing, costume design, makeup and set construction. Individual performance assignments enable students to apply all knowledge and skills acquired. In addition, students have the opportunity to perform in at least one major production each year. Students also attend performances of major opera companies to enhance their development and appreciation of the art form. Students who participate in Opera Theater may receive academic credit.

Radio Station WHOV-FM

Hampton's Own Voice, 88.1 FM, is a member of the Intercollegiate Broadcasting System and provides practical experiences in general and technical aspects of broadcasting. WHOV-FM broadcasts seven days a week, including in its programming format news, music, discussions, plays, special events and other programs of interest to the college community and the surrounding communities of Norfolk, Chesapeake, Newport News, and Hampton, Virginia.

The Terpsichorean Dance Company

The Terpsichorean Dance Company offers an opportunity for developing skills in techniques of movement and for performing in dance productions. Students audition in the fall and should have a background in modern dance, ballet, jazz, ethnic and tap. The company presents two full concerts on campus each year, tours, conducts master classes, seminars and workshops both locally and on tour, and provides instructors for the University Children's Community Dance Program.

University Band

The University Band performs as a marching and concert organization which performs locally, nationally and internationally. To become part of the band organizations, students must audition each year. The band provides spirited music for parades, football games, basketball games, and presents concerts for the campus and the region. Known best as "The Force", the Marching Band is the recipient of honors and awards including the Honda Battle of the Bands and the Wilmington DE Battle of the Bands. Also part of the Band organization are dynamic drum majors, majorettes and the Ebony fire Dance Squad. All interested students can try-out for these positions during the spring of the year. The band serves as a laboratory for Music majors and as a resource for all persons with music abilities in wind or percussion instrument performance. The activity of the band extends throughout the academic year with the support it provides to athletic events by way of the Pep Band. The purpose of the Pep Band is to promote school spirit, render support to the cheerleaders, actively participate in athletic activities through routines, and perform half-time programs during the basketball season. All interested students may try out in the spring and fall of the school year. The University Bands also include Symphonic Winds and Concert Band. These ensemble display skillful and artistic performances during the spring semesters and are open to all students.

University Choir

The University Choir provides music for all formal campus events including Founder's Day, Convocation, and Commencement. It also provides music for the University Memorial Chapel weekly service. The University Gospel Choir, "His Chosen Sounds", provides an outlet to those students desiring to sing gospel music, and presents a series of concerts throughout the academic year. The University

Concert Choir is the primary touring choir for the University. It has toured major performance venues in Chicago, New York, Miami, Atlanta, and the Virgin Islands. This group tours twice annually and performs throughout the school year on weekends. It supports the larger choirs on major programs and occasionally provides music for chapel services. All choral groups are open to the entire campus community through audition.

University Chamber Orchestra

The Chamber Orchestra is a student- based ensemble which allow students who have played stringed instrument for many years to continue playing and performing during their college experience. The Chamber Orchestra is often request for special events including Honors 'Day and the President's annual Leadership Conference. All students who wish to join the Chamber Orchestra can do so by auditioning each semes

Sigma Alpha Iota

Sigma Alpha Iota is an International Music Fraternity made up of female students and based in the Department of Music. Its goals are to "uphold the highest standards of music" and "to further the development of music in America and throughout the world". It continues to provide musical and educational resources to its members and the general public. Sigma Alpha Iota is a member of the National Interfraternity Music Council and the Professional Fraternity Association.

Tau Beta Sigma

The Theta Phi Chapter of the National Honorary Band Sorority Tau Beta Sigma is open to young women involved with the University bands and have achieved a GPA of 2.5 or higher. It's goals are to "cultivate leadership, educational achievement, music appreciation and community development" while "empowering women in the band profession".

University Jazz Ensemble

The Hampton University Jazz Ensemble consists of student musicians dedicated to performing in the popular, jazz and rock idioms. There are opportunities for solo playing, improvisation and the performance of student and faculty arrangements throughout the year, both on and off campus. Membership in the Jazz Ensemble is open to all university students. All students are selected by audition and/or the recommendation of the director. All members are required to make all rehearsals and performances. This ensemble is frequently requested for on and off campus events.

Department-Related Student Organizational Clubs

American Association for Computing Machinery The purpose of this organization is to promote an increased knowledge of the science, design, development, construction, language, and application of modern machinery. Membership is open to any student at Hampton University.

American Institute of Architecture Students (AIAS)

This organization, which is open to all students enrolled in the Department of Architecture, seeks to acquaint students with the services, goals and activities of its parent organization, the American Institute of Architects. As a supplement to the department's activities, it broadens the student's understanding of the profession and sponsors special projects for the enlightenment of the student.

American Institute of Biological Sciences-Hampton University Student Chapter

This is a scientific and educational organization for individuals (faculty and students) working in or interested in all disciplines of the life sciences. AIBS works in a mutually beneficial relationship with other national biological societies. The work of AIBS in dealing with the influencing forces on the biological community is only part of its role. Of equal importance is the increasing need for members to become better informed on scientific advances through its publications.

American Institute of Chemical Engineers (AIChE)

The Hampton University chapter provides an opportunity for chemical engineering students to meet with other chemical engineering majors and obtain information about local and national professional developments. It also provides opportunities for students to attend scientific and technical meetings. The club organizes social and professional activities throughout the academic year. Student membership in AIChE is open to all chemical engineering majors.

Art Club

The Visual Poets' Society works to raise campus awareness of art. Typical activities include exhibitions and sale of student artworks, participation in the Homecoming Parade and Coronation, holiday and end-of-semester parties. The Art Club is open to all interested students.

Chemistry Club

The objectives of the Chemistry Club are to:

1. promote the student's scientific interest in the field of chemistry;
2. promote high standards of professional ethics and practices;
3. provide a structured tutorial program for students;
4. promote the distribution of chemical knowledge; and
5. make members aware of the numerous job opportunities in the field of chemistry.

Frederick D. Inge Biology Club

The Frederick D. Inge Biology Club is open to all biology majors. This organization seeks to:

1. create a sense of unity among students majoring in the biological sciences;
2. stimulate high scholarship;
3. promote the distribution of biological knowledge through seminars, visiting lecturers, and visits to other institutions; and
4. inform students of career options and job opportunities in the field of biology.

Sports Science and Wellness Majors Club

The purpose of this organization is to cultivate and improve the academic standards and stature of Sport Management and Kinesiology majors, through self-expression, and leadership, and to provide educational and recreational activities to contribute to the well being of all individuals. Membership is open to all SSW majors.

History Club

The History Club is open to history majors and other students who are interested in deepening their understanding of contemporary society in its historical perspective and in meeting with their fellow students and faculty members in an informal setting. The Club sponsors panel discussions and guest speakers on pertinent topics of mutual interests.

Marine and Environmental Science Club

The purpose of this organization is to provide a greater awareness and understanding of the natural environment, facilitate the science students' choice of curriculum and introduce the students to various disciplines of marine and environmental science. Membership is open to any Hampton University student.

McCullough's Raiders

This unit consists of Army ROTC cadets who are interested in participating in more challenging military training beyond that which is normally a part of the regular Military Science program. The prerequisites for membership are good physical conditioning, mental alertness and a willingness to adhere to exacting procedures, which are necessary to accomplish difficult tasks.

National Association for Music Educators

Membership in the Hampton University chapter of the National Association for Music Educators is open to all students majoring in music education. Its purpose is to afford students an opportunity for professional orientation while still in college; for understanding the significant role of music in life; and for experiencing preprofessional relationships of good quality. This purpose is achieved by means of projects, discussions, programs and other music activities.

National Association of Black Journalists

National Association of Black Journalists (NABJ) The purpose of NABJ is to bring about a union of black journalists dedicated to truth and excellence in news; to encourage students to identify careers in journalism and to assist black journalists in upgrading their skills for management positions. The organization is composed of students, journalists, journalism professors, and others interested in careers in journalism.

National Society of Black Engineers (NSBE)

The NSBE Student Branch of Hampton University is dedicated to developing programs that will increase the participation of African-Americans and other ethnic minorities in the field of engineering and engineering technology. It also helps to advance the role of ethnic minority engineers in professional careers in industry. NSBE members try to give back to their community the expertise gained from their technical disciplines. The Hampton University chapter of the NSBE sponsors many programs that reach out to the community and its members. NSBE activities include programs such as the Pre-College Initiative, study sessions, a seminar series with corporate speakers and participation at various conferences. Membership in NSBE is open to all engineering students. Associate membership is also available to science majors.

Phi Mu Alpha Sinfonia Fraternity of America

Phi Mu Alpha Sinfonia Fraternity of America is composed of male student musicians who are leaders in their community and are dedicated to musical growth. They are active members of one or more musical ensembles, display scholarship, and achieve academic excellence. The purpose of this professional music fraternity is to encourage and actively promote the highest standards of creativity, performance, education, and research of music in America.

Physics Club

The purpose of this organization is to supply an environment for undergraduate, graduate and faculty/staff in the Physics Department, to interact with each other and participate in physics- related activities. Membership is open to all undergraduate and graduate students who are interested and willing to participate in all physics related activities.

Political Science and Pre-Law Club

Membership is open to political science majors and non-majors. The club seeks to promote high scholarship and provides information concerning scholarships and fellowships, internships and entry into law school and graduate school. In promoting high scholarship, the club sponsors radio programs, panel discussions and forums on social, economic, and political issues. It invites speakers of varied persuasions to the campus, and it shows slides and films whenever possible. The club also organizes workshops for the LSAT and GRE. Club members are also involved in community service programs. All of these activities are seen by the club as complementary to formal classroom activities.

Pre-Medical Club

The purpose of this organization shall be:

1. to make available the most current information to premedical students concerning careers in medicine, dentistry, osteopathy, pharmacy, veterinary medicine, podiatry, optometry, public health and other health professions;
2. to stimulate an interest in premedical studies by
    a. holding seminars with other health professionals and medical school representatives for the purpose of discussing career opportunities;
    b. initiating programs wherein premedical students receive opportunities to work and study in fields corresponding to their majors and intended careers; and
    c. making the students aware of summer premedical enrichment programs.

Membership in the organization shall be available to any student having an interest in pursuing a career in the post-baccalaureate health professional fields.

Psychology Club

Membership in this organization is available to all psychology majors and any other students who profess an interest in psychology. The Club seeks to promote greater interest in the field of psychology; stimulate higher academic achievement; and create a greater and more personal desire for learning. The club sponsors field trips and other activities during the school year.

ROTC Sub-Chapter 33A of Chapter 33A of the Reserve Officers Association of the United States (ROA)

The purpose of this organization is to keep its members current in the trends, policies and changes affecting the armed forces. It also provides a forum through which officers can provide input to all programs dealing with national defense and the reserve forces. All members of the ROTC attending Hampton University are eligible for membership.

Sociology Club

The Sociology Club seeks to promote scholarship and active participation in the field of Sociology. This process is facilitated through the use of community-related and human service-related projects. Furthermore, the Sociology Club assists its members in selecting career opportunities. The club is open to all majors in the Department of Sociology, including students concentrating in Criminal Justice and Social Work.

Speech Communication Club

The purposes of the Speech Communication Club are:

1. to encourage professional interest among college students in the study of normal and disordered human communication behavior;
2. to provide continuity to the dissemination of professional information;
3. to provide a vehicle for student representation in matters of professional and departmental concern.

Membership is open to any continuing student with a 2.000 GPA or above.

Student National Education Association (SNEA) This organization is composed of students in the field of education. Its purpose is to promote higher standards and ideals among the persons who will be the guides of future citizens.

Student Nurses Association

This organization, open to majors in nursing, is known as the Hampton University Student Nurses Association. It seeks to stimulate the realization of the need for educational advancement among nursing students and to inspire student responsibility for self-determi-

nation and leadership in social and civic affairs related to health. Members of this organization are also members of the State and National Nurses Association(s).

Student Virginia Education Association (SVEA)

The purpose of the club is to provide students an opportunity to pursue professional growth in teacher education, to develop leadership skills and to assess their interest as professional educators, to provide member awareness of professional issues and concerns and to generate heightened interest in teaching as a career for high school and college students. Membership is open to all Education majors entering their sophomore year.

Underwater Explorers Club (KAOS KREW)

The primary purpose of the Hampton University Underwater Explorers Club is to provide an opportunity for Hampton University divers to continue their education about the underwater environment. Membership is open to experienced divers.

Cultural Activities

The **Musical Arts Society** brings renowned performing artists to the campus yearly in the areas of dance, drama, and music. In addition, the student performing groups including University, Concert and Gospel choirs, Jazz Ensemble, Chamber Orchestra, Symphonic Winds, Concert Band and Marching Band perform regularly for students and the community during the academic year. Also enhancing the cultural environment are the performances of the Terpsichorean

Dance Company, The Hampton University Players, and the availability of the world-class Hampton University Museum. Informative as well as diverse speakers are presented for the intellectual stimulation and cultural enhancement of all students throughout the academic year.

Students also have the opportunity to participate in formal recreation programs in the social areas of the residence halls. There are also occasional all-campus dances, movies, open forums, art exhibits, lectures, dramatic presentations, athletic contests, field trips, and hobby groups. All activities are either free or at reduced cost to students upon presentation of ID Cards and are open to the community at-large. Organized class- related clubs and activities play an important part in the growth of the students, affording opportunity for discovery and development of leadership skills and abilities. All students are encouraged to participate in one or more activities of this type. Some cultural activities are class-related in that attendance may be required in order to ensure that students receive the benefits of the University's rich cultural environment.

Athletics

The Department of Intercollegiate Athletics is under the administrative supervision of the Director of Athletics (AD). Until 1995, Hampton University, as a founding, charter member of the Central Intercollegiate Athletic Association (CIAA) participated in Division II of the NCAA (National Collegiate Athletic Association). Effective September 1, 1995, Hampton was reclassified to Division I status in the NCAA and are now members of the Big South Conference. Hampton competes in eight sports for men, eight for women and one co-ed sport. Women's sports include: Basketball, Cross Country, Soccer, Softball, Volleyball, Indoor and Outdoor Track, Tennis, Golf. Men's sports include: Football, Cross Country, Basketball, Golf, Indoor and Outdoor Track, Lacrosse and Tennis. Hampton University hosts one coeducational athletic program in Sailing.

Student Responsibilities at Hampton University

1. The student is responsible for learning the content of a course of study according to the standards of performance established by the faculty.
2. The student's behavior in the classroom shall be conducive to the learning process for all concerned.
3. The student is responsible to exercise his/her right of free inquiry, expression and advocacy in the classroom in a manner that is relevant to the subject matter of the instructional program and is subject to the right of the instructor to maintain order.
4. The student is responsible for complying with the Code of Conduct, University policies, rules, procedures and regulations applicable to students and student conduct.

Student Rights at Hampton University

1. The right of every student, upon entering this institution, to a clear and concise statement of his or her rights, obligations, and responsibilities, as well as the rules and regulations of the University, as prescribed in the Official Student Handbook and the Hampton University Code of Conduct.
2. The right of a student, should he/she be charged with a violation of University rules and regulations, to have his/her case heard by the appropriate judiciary body or the Administrative Hearing Committee.
3. The right of every student to be advised in writing of any charges that lead to his/her, suspension, expulsion or other severe disciplinary action.
4. The right of every student to competent instruction, counseling service, and adequate library, laboratory, and service facilities.
5. The right of every student to conduct research freely, and to publish, discuss, and exchange findings and recommendations so long as such research and publication follow acceptable standards of scholarship.
6. The right of every student to establish democratic student government with the authority to administer, legislate and adjudicate in all areas within its constitutional jurisdiction with adequate democratic safeguards against abuse of its power.
7. The right of every student organization to have a faculty advisor.
8. The University reserves the right to approve that advisor and, in some instances, will appoint an advisor to further the educational objective of promoting learning.
9. The right of authorized student organizations and students to use campus facilities, subject to such uniform regulations as are required for use and scheduling meeting times and places, provided the facilities are used for the purpose contracted.

10. The right of authorized student organizations to hear speakers of their choice, subject to clearly stated educational policies of the institution, which have been made known to the students.
11. The right of authorized student organizations to use the name of the institution subject to uniform regulations with respect to off-campus activities.
12. The right of every authorized student organization to establish and issue regular student-directed publications, free of censorship, editorial restrictions or other pressure, as long as appropriate Hampton University rules, procedures and regulations are followed and with each edition approved by the advisor. These publications, just as any other publication at the University, must adhere to the code of common decency and shall not transgress any civil or criminal laws, including libel, copyright, pornography or indecency. If these are not adhered to, the publication will not be allowed to continue.
13. The right of every student to exercise freely his/her full right as a citizen in off-campus activities in connection with local, national, or international organizations for intellectual, religious, social, political, economic, or cultural purposes, and to publish and distribute his/her views without impairing his/her standing in the institution, provided he/she does not claim to represent the institution.

Commonly Used Terms

Academic Load
The total semester hours of credit for all courses taken during a specified time—semester, summer term, or other special session.

Accredited
A term applied to a school or specific program which has been recognized by some national or regional organization as meeting certain academic standards for quality and educational environment.

Add and Drop Deadlines
The latest date in a semester when a course may be added or dropped from a student's class schedule without approval of someone other than the student and his or her advisor (exception: when the additional hours produce an academic overload).

Admission
The process of being admitted to H.U. as a university student with the opportunity to take classes.

Admission File
The set of documents related to a request for admission to one of the colleges at H.U. The set contains the application form, official transcripts of previous work in high school or college, and may contain standardized test scores (SAT or ACT for freshman applicants, GRE or GMAT for graduate applicants), a statement of career objectives, forms for international students, or other information required by the college's admission office or by a particular school.

Advanced Placement (AP) Examination
The Advanced Placement Examination is available nationally to high school students in selected subject areas from the College Entrance Examination Board (CEEB). Obtain information on taking the examination from a high school guidance counselor.

Information on H.U. course credit for these examinations is available from the Office of Admission.

Application Deadline
The date by which all documents required for the admission file of a prospective student must be received by the appropriate H.U. admission office.

Clinical Validation Examination
The Clinical Validation Examination consists of 300 multiple choice questions and is used to assess the clinical care knowledge . The fee for the examination is $100.

College-Level Examination Program Test (CLEP) Subject area examination administered by the College Entrance Examination Board. For information, contact: The College-Level Examination Program, Box 1821, Princeton, NJ 08540. Information may also be accessed via the Internet at www.collegeboard.org.

Comprehensive Examination
The Comprehensive Examination will evaluate the student's mastery of key components of his/her academic major.

Concentration
A collection of courses within a major, which focuses on a particular subject area. The term "concentration" describes the nature of the set of courses.

Corequisite
A course to be taken or a requirement to be fulfilled at the same time as a particular course is being taken.

Curriculum
The set of courses offered in a particular degree program. More generally, the courses (in total) offered in a college or university. The plural word is curricula.

Curriculum Outline
The sequence of required courses that lead to the degree specified for that program. Courses that are separated by a dash (-) must be taken in that order in order to meet prerequisites. Courses that are separated by a slash (/) are equivalent requirements and the slash represents a choice between the two courses. A comma (,) between two courses implies the courses may be taken in either order.

Distance Education Policy
Students who reside outside of a 50 mile radius of Hampton University will only be eligible for classroom courses and programs taught remotely or offered through Hampton U Online.

Dual Major
Two equal educational interests of an undergraduate student. In order to declare a dual major, students must be accepted as a major by each department and complete all course requirements in force at the time of acceptance to each major.

English Proficiency Test
A test taken at H.U. prior to initial registration (but after admission) by undergraduate international students to determine what English course (if any) must be taken at H.U. This local test is in addition to the minimum TOEFL test requirement.

Full-time
One who is registered for 12 hours or more during a semester as an undergraduate student or 9 hours or more during a semester as a graduate student in the Main Campus. The normal course load for a Hampton U Online student is 6 semester hours within a session for a total of 12 credit hours within one semester.

Grade Point Average (GPA)
An average on the 4.1-point scale determined by dividing the total accumulated quality points by the corresponding total GPA hours. Grade Point Average Hours (GPA Hours)

The total number of credit hours enrolled with letter grades A+ through F. These hours are used to calculate the GPA by dividing the Quality Points by the GPA Hours.

Honors Course or Section
A version of a regular course reserved for undergraduate students with superior preparation for that course. Non-departmental enrichment courses are available (by invitation only) from the H.U. Honors Program.

Lower Division

1. A course normally taken during the freshman and sophomore years. In the H.U. course numbering system, lower division courses carry 100 and 200 numbers. Courses numbered 100 or lower carry no credit toward degree requirements.
2. A term referring to a student's location in the progression of course work leading to an undergraduate degree and implying freshman or sophomore classification.

Major
The principal education interest of a student as represented by one of the curricula offered by the various colleges at H.U. Every student has one major, but may or may not have a concentration within a major or be following an option within a major.

Minor
Students who wish to declare a minor must complete one half (1/2) of the credit hours for the major with a minimum of 18 credit hours. Meeting the requirements for the minor is to be independent of meeting the major requirements for graduation. Courses for the minor may not be taken on an S/U (Satisfactory/Unsatisfactory) basis. Students must earn a passing grade of at least a "C" in courses counted toward the minor. The offering department will determine the course requirements for the minor. To change a minor requires the submission of the Change of Major/Minor Form to the Office of the Registrar no later than the semester prior to graduation.

Option
A concentration of elective courses within a major, which emphasizes one aspect of the major.

Orientation
A meeting (or series of meetings) designed to acquaint new students with the facilities, policies, sources of information and assistance, and academic and social atmosphere of H.U.

Prerequisite
A requirement to be completed (or a level of skill or knowledge to be demonstrated) before enrollment in a course, a degree program, or association with a college.

Proficiency Examination
A test given to a student admitted to H.U. to evaluate knowledge or skills normally acquired through completion of a particular H.U. course.

Progression
An internal evaluation in some colleges or degree programs by which an associated student's academic standing is examined to determine if prior work is complete and if the student should proceed towards completion of the remaining degree requirements. The most common evaluation point is at the end of the sophomore year.

Quality Points
H.U. compiles academic performance records through use of a scale assigning 4.1 "Quality Points" per semester hour of credit for an "A+" grade ranging to 0.7 Quality Point per semester hour of credit for a "D-" grade.

Registration
The process of officially gaining entrance into one or more courses.

Semester
The division of the calendar year used in academic scheduling at H.U. A semester is roughly 4 months or 16 weeks in duration.

Semester Hour
The unit of academic credit at H.U.

Session
The division of the calendar year used in academic scheduling at H.U. A session is 8 weeks in duration for the Hampton U Online

TOEFL Examination
An internationally administered examination measuring ability to use the English language. Required of any international student applying to H.U. whose native language is not English. For information and to make arrangements to take the examination, contact:

The Test of English as a Foreign Language, Educational Testing Service, Princeton, NJ 18540.

Upper Division

1. Courses normally taken during the junior and senior years (300 and 400 numbers at H.U.). A student taking primarily junior and senior courses is said to be an upper division student. Credit for upper division courses may be labeled "UD credit" on a transfer evaluation.
2. The state of being classified as a junior or senior.

Hampton Institute

The Undergraduate College

Hampton Institute, the Undergraduate College, is the oldest of the two colleges that comprise Hampton University. Hampton University is the oldest nonsectarian, co-educational, postsecondary institution in the Commonwealth of Virginia. In recognition of the growth and evolution of the school, in 1984 the Board of Trustees adopted the name Hampton University, while continuing to use the name Hampton Institute for the undergraduate college. Primarily, the undergraduate college seeks to enroll promising graduates of outstanding secondary schools. Yet, it also considers students from other academic backgrounds and levels of achievement.

Information and policies that apply to the two colleges are found in the General Information section of this catalog and address the history and mission, academic program offerings, fees and expenses, financial aid and student support services. Additional details about undergraduate and professional academic programs and policies are provided in this Undergraduate College section. The Undergraduate College is comprised of seven Schools: Business, Liberal Arts and Education, Engineering and Technology, Nursing, Pharmacy, Science, and the Scripps Howard School of Journalism and Communications. The programs of study leading to the Bachelor of Arts (B.A.), Bachelor of Science (B.S.), Master of Architecture (M.Arch), and the undergraduate/ pre-professional portions of the programs leading to the Master of Business Administration (M.B.A.), Master in Teaching (M.T.) and Doctor of Pharmacy (Pharm.D.) degrees are provided through the Undergraduate College. Minor programs of study are outlined in the department descriptions. Undergraduate degree program requirements are presented under the school and department or program.

Hampton Institute — The Undergraduate College

School/Unit	Major and/or Minor
Honors College	Honors Program
Leadership Institute	Leadership Studies
School of Business	Accounting Business Administration Economics Entrepreneurship Finance Management Marketing
School of Engineering and Technology	Architecture Aviation Chemical Engineering Computer Engineering Electrical Engineering
Scripps Howard School of Journalism and Communications	Journalism *(formerly Print Journalism and Broadcast Journalism)* Strategic Communication *(formerly Public Relations)*
School of Liberal Arts and Education	Criminal Justice and Criminology Cyber Security Education English and Foreign Languages History Interdisciplinary Studies (Pk – 6) Kinesiology Liberal Studies Music Music Recording Technology Music Audio Production Political Science Psychology Sociology Sport Management Theatre Arts Aquatics AROTC
School of Nursing	Nursing
School of Pharmacy	Pre-Professional Pharmacy and Professional Pharmacy
School of Science	Atmospheric and Planetary Sciences Biochemistry Biology Chemistry Communicative Sciences and Disorders Computer Information Systems Computer Science Cyber Security–Computer Science Marine Science Mathematics NROTC Physics

† Note that the course requirements for each program of study are listed in the respective Curriculum Outline under the department or program area that offers the program. Courses that are separated by a dash (-) must be taken sequentially as the first course on that line is a prerequisite for the second course on that line. Courses that are separated by a comma (,) may be taken in either order. Courses that are separated by a slash (/) are equivalent and the slash stands for "or."

Undergraduate Admission

Basis for Admission – Freshman Class

Admission to the freshman class is limited to recommended graduates of accredited secondary schools, ranking in the upper half of their classes. Each year, candidates are chosen from the list of applicants on the basis of preparation for college and interest in and aptitude for courses offered by Hampton University. The University accepts satisfactory scores on the GED test in those cases where a high school diploma is not presented.

Every candidate for admission must make formal application to the Director of Admission, Hampton University, Hampton, VA 23668. An application for admission, furnished by the Director of Admission upon request, should be filled in completely and sent with the application fee of $35 (cashier's check or money order made payable to Hampton University). NO PERSONAL CHECKS. This fee is not refundable. Applications for admission for the fall semester must be completed before March 1. Applications for admission for the spring semester must be completed by November 1.

Every candidate must present satisfactory credentials as to ability, character, and health. The decision of admission is based on the following factors:

a. Secondary school record

b. Level of performance on the Scholastic Aptitude Test of the College Entrance Examination Board, or the American College Testing Program

c. Personal qualities, background, and experience

d. Educational objectives

e. Institutional needs

Seventeen Carnegie units of academic work are required for consideration as an applicant for admission. The Office of Admission's staff is more interested in the quality of the applicant's academic preparation and his/her general promise as a college student than in the total number of such units offered. The academic units must include four units in English (grammar, composition and literature), three units of mathematics (algebra I, algebra II, and geometry), two units of natural science (biology and chemistry) and two units of social science. The remaining six academic units accepted will be chosen from those required by the secondary school for graduation. The applicant must have earned a grade average of at least "C." However, those applicants planning to major in one of the arts or sciences should include at least two units of a foreign language. The Admission Committee considers the relation between the subjects taken and the curriculum the applicant seeks to follow in college.

Every applicant for admission to Hampton University who has not previously attended college must take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the American College Testing (ACT) Program and have the scores sent to the University as a part of the application for admission. Those who wish to take one or more of the Achievement Tests may do so, but these additional tests are not required.

Health Record

Any student offered entry or re-entry to the University will be denied the privilege of registration until the Student Health Center has been given a copy of an up-to-date physical examination report and a copy of his/her immunization record.

Freshman Early Admission

In keeping abreast with the trends of higher education, the University is interested in highly motivated, socially mature high school students of at least junior standing with at least an overall average of "B," a minimum combined SAT score of 1,050 and/or a comparable ACT score, and rank at least in the top 25 percent of their class. Those students without a high school diploma must sit for the GED.

Freshman Concurrent Enrollment

Highly motivated, socially mature high school juniors who meet the requirements for early admission may be interested in the Concurrent Enrollment Program. The only additional requirement is permission of the high school principal. At the end of the first year at Hampton, the student's high school will award the diploma.

International Students

Students from outside the continental United States are welcome at Hampton University. Interested applicants should communicate with the Director of Admission, who will provide the necessary forms for mailing applications and will make known to them whatever special requirements they must meet. The student must present evidence of having an educational background at least equal to an American secondary school education. In cases where educational records are submitted in a language other than English, an admission decision will be delayed until the record is translated. Each candidate must present satisfactory credentials to be offered admission. The college requires the following:

1. High School Completion.
    - African Students - General Certificate of Education or the West African School Certificate, Ordinary level, and Division II, with at least 6 passes. (One each in English grammar, mathematics and science).
    - Others - Completion of high school equivalency as attested by the American Association of Collegiate Registrar and Admission Offices (AACRAO) National Credentials Evaluation Project.
    - Score not less than 950 on SAT or 21 ACT composite, or 550 TOEFL
2. Completed Application for Admission.
3. Issuance of I-20 Form will not occur until the American sponsor vouches for payment of same, or scholarship/government grant is received.

Upon arrival on campus, all international students are required to contact the International Students Advisor. The International Students Advisor provides general counseling for international students on matters relative to personal adjustment, financial concerns and problems related to academics.

Home Instruction/Home Schooling

Applicants who have completed a program of home instruction or home schooling instead of an accredited secondary school must present the following credentials:

1. Secondary school record, if it exists;
2. GED test scores;
3. Official verification by state or regional public official of completion of approved home instruction/home schooling program;
4. Official results of standardized tests used for evidence of achievement or copy of annual achievement progress reports submitted to official in charge of state or regional home instruction/home schooling supervision; and
5. The results of the Scholastic Aptitude Test of the College Entrance Examination Board or the American College Testing Program.

Basis for Admission - Transfer Students

Students who have satisfactorily completed at least 15 semester hours at an accredited institution may be admitted to regular standing with such advanced standing as their previous records may warrant. Every candidate for admission must make formal application to the Director of Admission, Hampton University, Hampton, VA 23668. An application for admission, furnished online or by the Director of Admission upon request, should be filled in completely and sent with the application fee of $35.00 (cashier's check or money order made payable to Hampton University). NO PERSONAL CHECKS. This fee is not refundable. Applications for admission for the fall semester must be completed by March 1. Applications for admission for the spring semester must be completed by November 1.

Requirements for advanced standing are as follows.

1. Satisfactory credit from previous college, as shown on official transcripts. If the student has fewer than 30 semester hours credit from the previous college, he or she must submit satisfactory scores on the Scholastic Aptitude Test and his or her high school transcript, as required of entering freshmen.
2. Grade point average of 2.50 or better at previous college.
3. Honorable dismissal from previous college. If a student is suspended from another college, but eligible to return, he or she may be considered for enrollment at Hampton University after the lapse of at least one semester or the term of suspension, whichever is longer. The University reserves the right, based upon the student's record, to revise the academic classification given such students at entrance.
4. The Department of Architecture may request a portfolio of student work to assist in determining placement in the design studio.
5. The School of Pharmacy requires an interview and Pharmacy College Admission Test (PCAT) scores prior to admission to the first professional year (P1-Level), or higher level. Prospective professional pharmacy students must have a minimum GPA of 2.75 or have completed the pre-professional pharmacy track at Hampton University to be eligible for the admission interview.

Re-Entering Student Applicants

Former students seeking re-entry must file an application with the Director of Admission in the term of planned re-entry and follow the procedures enumerated below. All students applying for re- entry to the University must abide by the following:

1. Submit an application by July 1 for fall semester, December 1 for spring semester.
2. Provide the necessary medical clearances;
3. Provide a copy of the letter of disciplinary dismissal, if applicable;
4. Provide copies of transcripts of academic work at other institutions; and
5. Provide copies of DD Form 214 or 295 if appropriate.
6. Provide a copy of the letter of academic dismissal, if applicable.

Any student with more than three voluntary withdrawals (for reasons other than medical ones) during his or her tenure, or with two academic dismissals is ineligible to apply for re-entry.

Acceptance Notice

If the evidence secured indicates that the applicant appears amply qualified to enter Hampton University, a formal Certificate of Admission will be sent. Only persons who have received their Certificate of Admission will be permitted to take part in the activities of Orientation Week or to register for classes.

Arrival on Campus

Time of Arrival:

Students should arrive on campus on the day that residence halls are open to them, as stated in the college calendar. STUDENTS WHO ARRIVE PRIOR TO THE TIME RESIDENCE HALLS ARE OPEN MUST MAKE LIVING ARRANGEMENTS IN THE CITY.

How to Reach the Campus:

Hampton University is located in the City of Hampton, Virginia. Transportation is available as follows:

By Greyhound Bus: Tickets should be purchased to Hampton. The Greyhound Station is near the campus in downtown Hampton.

By Air: To Norfolk International Airport or Newport News-Williamsburg International Airport. Limousine service to the campus is available.

By Auto: In the Hampton area, take Interstate 64 to Exit 267 and follow signs to the University entrance.

Admission to Residence: Students will be admitted to residence only if they have paid the advance deposit fee.

Special/Non-Degree Students

Individuals may enter Hampton University for the purpose of taking certain courses without becoming candidates for an undergraduate or professional degree. These persons will be listed as special students. They may not be subject to the specific requirement for standardized test scores for admission, but they must give evidence of preparation and ability to successfully pursue college level courses. Such students may later become candidates for a degree by meeting all entrance requirements. Special students will not be accorded the privilege of participating in intercollegiate athletics or other student activities. They will be subject to the same rules and regulations governing scholarship, class attendance, conduct, and health as regular students.

Advanced Standing

Advanced standing can be obtained for entering undergraduate students through transfer of credit earned at previous colleges, Advanced Placement Examinations, advanced placement through the Office of Testing Services, life experiences or military service, as appropriate.

Hampton University participates in the Advanced Placement Program of the College Entrance Examination Board (CEEB) and the International Baccalaureate Program (IBP). This program begins in a high school when college level studies are offered to able, interested students. International Baccalaureate Credits (IB) earned at the high school level should be sent directly to The Office of Testing Services. The information will be translated into the appropriate number of Hampton University credits. Advanced Placement Credits (AP) earned at the high school level should be sent directly to the Registrar's Office. The Office of Testing Services is not involved in the placement of these credits on a student's transcript. The college does not limit the number of credits an entering student may have received through these examinations.

Advanced Placement Examinations

Additionally, Hampton University also participates in the College Level Examination Program (CLEP) of the CEEB and the Defense Activity for Non-Traditional Education Support (DANTES). The broad purpose of this program is to improve access to higher education through a national system of placement and credit by examination. The college accepts for credit both the general examinations and the subject examinations. The subject examinations, however, must be approved by the respective academic department at the University. Awarding of credit for CLEP will be based upon recommendations of CEEB. Credit for DANTES will be based upon the recommendations of the American Council of Education (ACE).

Entering freshmen may earn advanced course placement in English and mathematics through the University's Testing Program. The Office of Testing Services evaluates each entering freshman's high school academic record (course grades, SAT/ ACT scores, cumulative grade point average, and honor courses) to identify outstanding performance in English and mathematics courses throughout a student's high school career.

Students identified for Hampton University Advanced Placement in English will register for ENG 102 Honors. The freshman MUST complete that course with a grade of "C" or better to be eligible for the advanced placement credit of three (3) credit hours for ENG 101. If the freshman does not satisfactorily complete ENG 102, no credit will be awarded by the Hampton University Testing Program.

Students identified for Hampton University Advanced Placement in mathematics will be placed in the highest level of math indicated by major based on SAT/ACT scores, and performance in required prerequisite high school courses. The freshman MUST complete the course (MAT 117, 118, 130, or 151) during the semester of placement with a grade of "C" or better to be eligible for the advanced placement credit of three (3) credit hours for the one preceding or prerequisite math course. If the freshman does not satisfactorily complete the identified advanced math placement course, no credit will be awarded by the Hampton University Testing Program.

Advanced Placement Credits awarded through the University's Testing Program are applied to the student's degree requirements.

National Level Testing Programs

The national level testing program includes administering and providing information for preparation to take national tests, such as Graduate Record Examination (GRE), Law School Admission Test (LSAT), and the National Teacher Examination (Praxis). Other national level examinations that are administered include the American College Testing-Assessment (ACT), American College Testing-Automotive Service Excellence Examination (ASE), and the Scholastic Aptitude Test (SAT).

Life Experiences

In consultation with and approval of the School or College Dean, a student can substitute life experience for college credit.

Veterans/Active Duty Military

Active duty military personnel and veterans can receive advanced credit, depending upon rank, length of service, duty specialty, and service schools completed. Veterans and active duty personnel must submit copies of DD Form 214 or DD Form 295. The University grants the following academic credits to veterans of two or more years of honorable service in the United States Armed Forces who are enrolled in regular degree granting programs: A maximum of four semester hours for military service for veterans in pay grades of E8 and above, and six semester hours for pay grades of E7 and below (these credits can be used to meet the social science requirements, except for History 101, 102, 105, 106 or 108). A maximum of three semester hours in oral communication is allowed for veterans in pay grades of E8 and above.

Academic Policies and Regulations

General Requirements for Baccalaureate Degrees

The graduation requirements of the University, which must be met for completion of an undergraduate degree program, are those published in the Academic Catalog in force at the time of the student's admission to the University. The departmental chairperson, with the school dean, may request to waive or substitute course work for departmental requirements subject to approval of the Provost. **If the student's course of study is interrupted by failure to enroll for successive terms or because of a change of major, the student must then meet the university, school, and departmental graduation requirements in force at the time he or she re-enrolls and/or enters the new major.** See departmental and school program listings (Curriculum Outlines) in this Catalog for specific major and additional requirements. A graduating student whose financial account is delinquent will not be permitted to participate in the Commencement Exercise or receive his/her degree.

University Baccalaureate Requirements:

1. A minimum of 120 semester hours. Although a student may have waivers for degree requirements, he or she must still meet the minimum of 120 semester hours of credit accepted by the University.
2. An Application for Graduation must be submitted one full year prior to the expected graduation date and include the final combination of majors and minors.
3. A minimum cumulative grade point average (GPA) of 2.000.
4. A grade of at least "C" (2.0)or higher in all courses in the major area of study. Please refer to major program.
5. Students may not register (without special permission from the chair or dean) for courses for which they have not met the published prerequisites.
6. Courses in the General Education Sequence totaling 33-34 semester hours.
7. Courses in the major field, related subjects, and free electives totaling a minimum of 74 semester hours. The minimum number of credits needed to graduate is 120.
8. A minimum of thirty semester hours of credit earned at Hampton University; the student must be in residence the final 30 semester hours prior to the completion of degree requirements.
9. Passing of English 101-102 and Communication 103 with a grade of "C" (2.0) or better.
10. Developmental level courses (100 or below) - i.e., reading, mathematics, English 100 - do not count towards graduation.
11. Learning to Learn (EDU 295) does not count towards graduation.

University policy allows undergraduate students within six hours from meeting graduation requirements to participate in the en masse Commencement Ceremony. These students are considered as provisional candidates and are not eligible to receive a diploma; therefore they cannot participate in the school ceremony.

The General Education Program

The general education program is predicated on the belief that a particular body of knowledge and a particular set of competencies exist which are common to liberally educated people and which enable them to function as whole persons in a pluralistic society. In essence, the purpose of the general education program is to prepare all students to function as individual contributors to society, as members of the larger society, and as members of their native social and political environment.

Since the underlying assumption of the general education program is that there exists a common body of knowledge which binds together all human experiences, then all courses and activities which comprise the general education curriculum are designed around a common set of goals: to acquire, organize, evaluate knowledge and communicate knowledge.

As a result of the general education core and the companion discipline requirements, every Hampton University student prior to graduation should attain the following Core Competencies:

1. **Critical Thinking** is the ability to identify how to act after careful evaluation of the evidence and reasoning in a communication.
2. **Ethics** is the ability to identify ethical ideas, issues and apply ethical principles and relating to personal, professional and academic conduct.
3. **International Diversity** is the ability to understand the social customs, traditions, and artifacts of a culture.
4. **Information and Technology Literacy** is the ability to use electronic media to support research activities and the ability to locate, evaluate, and use effectively the needed information and its sources.
5. **Oral Communication** is the ability to deliver a spoken message of depth and complexity in a way that elicits a response from an audience of understanding, appreciation, assent or critical inquiry.
6. **Quantitative Reasoning** is the ability to use numeral, geometric, and measurement data and concepts, mathematical skills and principles of mathematical reasoning to draw logical conclusions and to make well-reasoned decisions in professional, financial, and/or real world situations.
7. **Scientific Reasoning** is the ability to describe, understand, predict, and control natural phenomena by adherence to a self-correcting system of inquiry, the scientific method, and reliance on empirical evidence.

8. **Written Communication** is the ability to develop and express complex ideas clearly, coherently, and logically in a style appropriate for both purpose and audience and demonstrate mastery of accepted standards of written communication.

Hampton University's General Education Core

Core Courses **Credit Hours**

English . . . . . .6 hrs.
ENG 101 Written Communication I (Required)
ENG 102 Written Communication II (Required)

Introductory sequence in composition, contributing to the liberal education of students, regardless of their majors. Approaches writing as a process and provides experience in writing with various aims and rhetorical strategies.

Oral Communication. . . . . .3 hrs.
COM 103 Oral Communication (Required)

A one-semester course in Speech Communication involving a participative learning experience. Emphasis will be placed on intrapersonal, interpersonal and public communication.

Health and Physical Education . . . . . .2 hrs.
HEA 200 or Two (2) Physical Education Activities HEA 200 Health Education

Designed to help the student to understand himself/herself as a human organism; to become familiar with various influences that affect health; to coordinate experiences for more effective understanding of healthful living in the world today; and to aid himself/herself in solving personal health problems.

Physical Education Activities
Two (2) physical education activities selected from Physical Education service courses numbered 104 through 231.

Freshman Orientation. . . . . .1 hr.
UNV 101 The Individual and Life (Required)

A one-semester required orientation course designed to improve the quality of the freshman experience for entering students by helping them understand the purpose and value of higher education at Hampton University, as well as the larger context in which that education takes place and the multicultural nature of the problems and concerns which it addresses; to develop positive attitudes toward the teaching learning process; and to acquire coping skills essential for successful college life.

Cultures and Civilization . . . . . .9 hrs.

Humanities and Fine Arts
HUM 201 Humanities I (Required)
Humanities Elective (Required)

Select one course from the following: HIS 105, 107: ART 200, 305, 306, or 407; ENG 214, 215, 323, 328 or 329; Foreign Language (above 202); HUM 202; MUS 200, 201, 202, or 305; Philosophy 203, 204, 210, 301, 304 or 305; THE 120, 205, 206.

History
HIS 106 World Civilizations II (Required)

Social and Behavioral Science . . . . . .6 hrs.
Options selected from Economics (201, 202), Geography (201, 202), Military Science (MSC 201), Political Science (201, 202, 203, 204, 205, 304, 305, 308, 310, 311, 317, 320, 341, 409, 499), Psychology (203, 205, 300, 301, 302, 304, 305, 306, 308, 311, 312, 402, 404) and Sociology (205, 210, 215, 304, 305, 315, 320, 322, 324, 326, 328, 401, 402, 405, 406, 414, 416, 422, 499).

Natural Science . . . . . .3/4 hrs.
Course selection from the following (with or without a lab): Biology (101, 103, 105, 106), Environmental Science 204, Chemistry (150, 201), Marine and Environmental Science (202, 204), Physics (201, 203), Science (102, 104), APS (101, 102, 105, 106).

Mathematics . . . . . .3 hrs.
Mathematics 110 College Mathematics II (Minimum; or higher, as required by the major).

Mathematics of finance such as interest, installment buying and mortgage. Measurement, geometry and the metric system. Elementary concepts of probability and statistics.

Total Hours . . . . . .33/34 hrs.

Declaration of Major

The undergraduate student should declare a major program of study not later than the end of his or her freshman year, or the completion of 30 semester hours of credit. A Student's Petition Form for Declaration or Change of Major must be filed with the Office of the Registrar. Each academic department reserves the right to approve the student's application to major in that department. No candidate for graduation may change a major or minor during the semester he/she plan to graduate. All changes must be made no later than the semester prior to graduation.

Dual Majors

Students who plan to graduate with dual majors must satisfy all requirements in each major, including all related courses, with separate courses. The General Education sequence must be completed once. Students choosing dual major options are required to maintain at least a 2.5 GPA. In order to declare a dual major, students must be accepted as a major by both departments. They must be assigned an academic advisor in each department and complete all requirements in force at the time of acceptance for each major. Students who desire a dual major, must file a dual major form in the Office of the Registrar on or before the end of their sophomore year. Students who satisfy all graduation requirements for the dual major shall receive a single diploma listing both majors. To change from a dual major back to a single major requires the completion of the Change of Major/Minor form not later than the semester prior to graduation.

Minors

Students who wish to declare a minor must complete one half (1/2) of the credit hours for the major with a minimum of eighteen (18) credit hours. Meeting the requirements for the minor is to be independent of meeting the major requirements for graduation. Courses for the minor may not be taken on an S/U (Satisfactory/ Unsatisfactory) basis. Students must earn a passing grade of at least a "C" in courses counted toward the minor. The offering department will determine the course requirements for the minor. To change a minor requires the submission of the Change of Major/ Minor Form to the Office of the Registrar no later than the semester prior to graduation.

Course requirements for the minor are specified in the program descriptions for the associated major or interdisciplinary program. Minors in Business Management, Entrepreneurship, Finance and Marketing are described in the School of Business section of this catalog. Minors in Architecture and Aviation are described in the School of Engineering and Technology section. Minors in Journalism and Strategic Communication are described under the School of Journalism and Communications section. Minors in Criminal Justice and Criminology, English, History, Music, Political Science, Psychology, Sociology, and Theatre are described in the School of Liberal Arts and Education section. Minors in Atmospheric and Planetary Sciences; Biology; Chemistry; Computer Information Systems; Computer Science; Marine Science; Mathematics; Naval Military Leadership, and Physics are described in the School of Science section. The Minor in Leadership Studies is described under the William R. Harvey Leadership Institute. The concentration in Aquatics is described under the Department of Sports Science and Wellness in the School of Liberal Arts and Education.

Classification of Students

Undergraduate students are classified according to the number of semester hours of credit earned:

Freshman	Less than 30 semester hours
Sophomore	30 to 59 semester hours
Junior	60 to 89 semester hours
Senior	90 or more semester hours

Professional students are classified by their progress or year in the professional pharmacy program as P-1, P-2, P-3 and P-4 or architecture program as AP.

Honors Designations

Undergraduate students and professional students who have demonstrated high academic achievement are recognized at the end of each semester with the designation of Dean's List. This honor is listed on the final grade report and student transcripts. To be awarded this honor, the student must be enrolled full time and earn a semester grade point average of 3.00 or higher. Undergraduate and professional students are also recognized during Honors Day by having their names listed in the Honors Day Program by category, which is based on the cumulative grade point average. The first Honors List is composed of the names of students who have earned not less than 3.5 times as many quality points as quality hours in a full-credit program (Minimum of 12 semester hours). The second Honors List is composed of the names of students who have earned not less than 3.0 times as many quality points as quality hours in a full-credit program (Minimum of 12 semester hours). High achieving students are also encouraged to join one or more honor societies.

Upon completion of the undergraduate degree program, a student who has demonstrated high academic achievement as measured by his/her cumulative grade point average (GPA) is recognized at Commencement by one of the following designations.

Graduation Honors

Valedictorian:

Highest Grade Point Average (GPA) of any graduating senior in the Undergraduate College.

Undergraduate College:

A tie Grade Point Average would be resolved by a count of the number of "A+"s. The GPA is calculated for this purpose on all letter grades received from all institutions with a minimum of four (4) full-time semesters (60 semester hours) at Hampton University.

Salutatorian:

Second Highest Grade Point Average of any graduating senior in the Undergraduate College- calculated as for Valedictorian.

Summa Cum Laude:	3.8 GPA and above
Magna Cum Laude:	3.6 - 3.799 GPA
Cum Laude:	3.4 - 3.599 GPA
Honors:	3.0 - 3.399 GPA
Departmental:	3.5 and above in major.

Departmental Honors are awarded to graduates with a 3.5 or higher, grade point average in their major.

Honors College

Recognition is awarded to high achieving students in the Honors College who have completed the Honors College Program as Honors College Graduates.

Honor Societies

Honor societies at Hampton University include the Accounting Honor Society, Alpha Kappa Delta (Sociology), Alpha Kappa Mu (Interdisciplinary), Alpha Mu Gamma (National Foreign Languages), Alpha Phi Sigma (Criminal Justice/Criminology), Alpha Psi Omega (Dramatics), Beta Kappa Chi (Science), Delta Sigma Rho/Tau Kappa Alpha (Debating), Golden Key (General), Kappa Delta Pi (Education), Kappa Tau Alpha (Journalism and Mass Communication), National Society of Scabbard and Blade (AROTC, NROTC), Phi Alpha Delta Law Fraternity (Pre-Law), Phi Alpha Theta (History), Pi Sigma Alpha (Political Science), Psi Chi (Psychology), Sigma Pi Sigma (Physics), Sigma Tau Delta (English), Sigma Theta Tau (Nursing), and Upsilon Pi Epsilon (Computer Science).

James T. George School of Business

The mission of the Hampton University James T. George School of Business is to cultivate business students to become industry ready professionals who have impeccable character and a strong work ethic. In pursuit of our mission, we will maintain a broad base of financial support through endowment fundraising, corporate contributions, research grant writing, alumni donations, and advisory board contributions. We develop successful scholars of strong character who give back to their community and who have technical and non- technical industry skills developed through a well-rounded business education experience. It is our vision to provide our students an exceptional business education experience that prepares them to immediately add value in any business environment. Our values in the School of Business are based on the founding principles of the institution. A spirit of excellence, with a strong work ethic, is the norm and not the exception amongst our students and faculty.

The School has as its purpose the promotion of learning, the development of character, the instilling of values (such as respect, integrity, dignity and decency), the creation of knowledge, and service to society. The School endeavors to prepare students for positions of leadership and ownership in a global society marked by change and complexity.

The School of Business is committed to fostering a stimulating intellectual environment in which all students and faculty are challenged and motivated to reach their full potential. We seek to identify high caliber students and provide them with the preparation necessary to succeed. We produce highly educated graduates characterized by competence, a thirst for knowledge, a performance orientation, and social consciousness.

Students may pursue a baccalaureate degree in many areas of business: Accounting, Business Administration, Economics, Entrepreneurship, Finance, Management or Marketing. These degree programs offer students the opportunity to tailor their course selections to pursue areas of emphasis. Minors are offered in the fields of Economics, Entrepreneurship, Finance, Management, and Marketing.The School of Business has two programs leading to the Master of Business Administration degree and one leading to the Doctor of Philosophy in Business Administration. Course requirements for degrees are listed under the respective department major curriculum outline headings.

Facilities

The School's administrative offices and the academic departments of Business Administration, Marketing, and the Center for Economics, Entrepreneurship, Finance and Accounting are housed in Buckman Hall.

Internship/Cooperative Education

Consistent with the expectations of employers and graduate schools, students are required to complete at least one significant work assignment for academic credit during their tenure at Hampton. An internship is typically a paid summer experience of two or three months, whereas, a cooperative education experience typically is for six months. These experiences enrich the student's education by providing relevant perspectives to the theories and techniques covered in the classroom. Students who have internships and/or cooperative education experiences are more attractive to employers. The School of Business works closely with the Career Counseling and Planning Center and our corporate partners to enhance the number and quality of these internship and cooperative experiences; however it is the responsibility of the student to secure such an experience.

To increase the competitive nature of our students, the School has adopted a conservative dress code for students interested in the greatest corporate exposure that could possibly increase their internship opportunities. Likewise, students with a GPA of 3.0 or higher will increase their chances of securing an internship.

Student Organizations

All students are encouraged to participate in student organizations. The School of Business organizations include, the Economics and Entrepreneurship Club, the National Association of Black Accountants (NABA), National Black MBA Association (NBMBAA), Society for the Advancement of Management (SAM), Sigma Beta Delta National Honors Society, Students In Free Enterprise (SIFE), the Student Financial Management Association, Society for Business Professionals, The National Accounting Honor Society, the Pirate Knight Chess Club, the American Marketing Association (AMA), Black College Business Women (BCBW) and Mu Kappa Tau are recognized student organizations that provide opportunities to serve and demonstrate leadership.

Accreditation

Programs in the School of Business are accredited by the International Accreditation Council for Business Education, (IACBE), an accrediting body focused on the quality of outcomes of the teaching-learning process.

Financial Aid

Students applying for financial aid must adhere to the criteria and procedures described in the Section on Student Financial Aid in the catalog. The School of Business awards special scholarships to deserving students on the basis of criteria formulated for each scholarship.

Advisement

Students are responsible for consulting with their assigned academic advisor and for following the curriculum outline. Advisement may include, but is not limited to, suggested elective courses, strategies for academic and career success, and other matters leading to a successful matriculation thru their individual programs.

Undergraduate Study in Business

Admission

Majors in the School of Business must adhere to the general admissions policies established by the University. Students preparing for careers in business must have completed Mathematics 117 with a "C" or better before attempting accounting or statistics courses. Mathematics placement is based on the student's pre- college academic preparation. Students who need additional preparation in mathematics are encouraged to enroll in Math for the summer preceding the freshman year.

Taking Business Courses at Another Institution

Students majoring in Business must successfully complete all major business related and core requirement courses at Hampton University unless permission is granted by the Dean. Please refer to the Section: Taking Courses at Another Institution for guidelines that apply to non-business courses.

Residency Requirements

Students should complete their freshman studies, general education requirements and foundation courses in economics, accounting, and statistics before taking any upper division courses. Completion of at least 60 semester hours is required prior to enrollment in 400 level business courses. Business School majors are strongly encouraged to maintain a cumulative GPA of at least 3.0.

Graduation Requirements – Bachelor of Science Programs

All undergraduate business programs require 120 credit hours divided between general education requirements, business core requirements, and program requirements.

The following courses are used by all business majors to satisfy general education requirements: ENG 101-102; COM 103; CSC 120; HIS 106; UNV 101; HUM 201; MAT 117; Humanities Course (3 credit hours); Science Course (3 credit hours); choice of 2 Social Science Courses, except ECO 201-202, (6 credit hours) and a choice of 2 Physical Education Courses (1 credit hour each) or 1 Health Education Course (2 credit hours).

The Core Business Requirements are ACC 203, 204; ECO 201-202; MGT 215, 216, 301, 305, 323, 400; FIN 304; MKT 305. Select programs, namely, Accounting, Business Administration, Economics, and Finance, require students to take and pass with a grade of C, or better, MAT 130 or higher. Business Administration is the only business major that does not require MKT 305. Business Administration must complete MBA 552, in order to fulfill marketing requirements. In addition, Business Administration requires MBA 201 and MBA 203 in place of ACC 203 and ACC 204.

The remaining courses required for graduation are distributed between program required courses, program-related electives, business related electives, non-business electives, and free electives as indicated on the approved curriculum outlines. School of Business majors are required to earn credit for all graduation requirements, under the letter grade system. Accordingly, students must not register under the Satisfactory/Unsatisfactory (S/U) grade system for courses used to meet graduation requirements. The grade of "C" or higher is required in ENG 101 and 102, COM 103, MAT 117, MAT 130 (where required), all business core courses, all major courses, all program-related electives, and all business-related electives. The grade of "C" or higher is not required for Foreign language, general education, non-business related electives, or free electives.

Center for Entrepreneurship, Economics, Finance and Accounting

The mission of the Center for Entrepreneurship, Economics, Finance and Accounting is to prepare students for careers in a global market and for graduate study. The Department achieves its mission through curricula structured to enable students to comprehend, analyze and critically assess an entity's financial condition and optimize its value. The Department endeavors to instill a commitment to ethical values and social responsibility.

Major Degree Requirements:

The Department offers programs of study in four disciplines: Entrepreneurship, Economics, Accounting and Finance that lead to the Bachelor of Science degree. All are designed to provide students with the skills and aptitudes needed to compete successfully in the profession. The curricula are structured to enable students to enter and make significant contributions in corporate, government or research organizations. The Accounting Program is designed to prepare students for careers in financial and managerial accounting, taxation and auditing. The Finance Program is designed to prepare students for careers in corporate finance, investment management, public finance, insurance and related areas. Instructional techniques include both theory and practical application. The Economics Program is designed to prepare students for admission to Law School and graduate programs in Economics and related areas, or entry to professional employment or community entrepreneurship. The Entrepreneurship Program is designed to prepare students for leadership opportunities, business ownership, and employment in high growth industries.

Consistent with the mission of the University and School of Business, the Center for Entrepreneurship, Economics, Finance and Accounting prepares students for professional careers in a global market, in the areas of public, private, governmental accounting and graduate study. The Department achieves its mission through curricula structured to enable students to comprehend, analyze and critically assess an entity's economic status and provide recommendations and direction, which will optimize its value.

Program in Accounting

The Accounting Program provides the student with extensive exposure to computer-assisted instruction. The Department endeavors to instill in students a commitment to ethical values and social responsibility. The Accounting Program has a minimum requirement of 120 credit hours. Those students wishing to graduate with a degree that makes them eligible to sit for the CPA exam in Virginia (and most other states) should enroll in the four-year accounting baccalaureate program and take additional electives to satisfy the requirements.

Curriculum Outline – Accounting

Freshman Year	Semester	1st	2nd
English 101-102		3	3
Communication 103		3	-
History 106		3	-
Mathematics 117 or higher		3	-
Mathematics 130 or higher		-	3
Foreign Language		3	3
University 101		1	-
Computer Science 120		-	3
Natural Science Course		-	3
Health (1) or Physical Education (2)		-	2
Total		**16**	**17**

Sophomore Year	Semester	1st	2nd
Social Science Course		3	3
Accounting 203-204		3	3
Economics 201-202		3	3
Management 215-216		3	3
Humanities 201		3	-
Free Elective		-	2
Total		**15**	**14**

Summer - Lower Division Internship (MBA 211) 1 Credit

Junior Year	Semester	1st	2nd
Accounting 309-310		3	3
Accounting 415		3	-
Accounting 419		-	3
Accounting 426		-	3
Finance 304		-	3
Management 301		3	-
Management 323		3	-
Management 340		-	3
Marketing 305		3	-
Total		**15**	**15**

Senior Year	Semester	1st	2nd
Accounting 416		3	-
Accounting 417		3	-
Management 305		3	-
Humanities Course		-	3
Business Related Elective		-	6
Non-Business Related Elective		3	3
Management 400		3	-
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Curriculum Outline – Finance

Freshman Year	Semester	1st	2nd
English 101-102		3	3
Communication 103		3	-
History 106		3	-
Mathematics 117 or higher		3	-
Mathematics 130 or higher		-	3
Foreign Language		3	3
University 101		1	-
Computer Science 120		-	3
Natural Science Course		-	3
Health (1) or Physical Education (2)		-	2
Total		**16**	**17**

Sophomore Year	Semester	1st	2nd
Social Science Course		3	3
Accounting 203-204		3	3
Economics 201-202		3	3
Management 215-216		3	3
Humanities 201		3	-
Free Elective		-	2
Total		**15**	**15**

Summer - Lower Division Internship (MBA 211) 1 Credit

Junior Year	Semester	1st	2nd
Accounting 309		3	-
Economics 302		-	3
Economics 315		3	-
Finance 304		3	-
Finance 309		-	3
Management 301		3	-
Management 305		-	3
Management 340		3	-
Management 323		-	3
Marketing 305		-	3
Total		**15**	**15**

Senior Year	Semester	1st	2nd
Finance 310		3	-
Finance 422		-	3
Finance Elective		3	3
Finance 403		3	-
Management 400		3	-
Humanities Course		-	3
Business Related Elective		3	-
Non-Business Elective		-	3
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Finance Minor Requirements:

A minor in Finance is offered with the completion of eighteen academic credit hours designated by the department chair to include FIN 304, FIN 309, FIN 403, plus three approved FIN electives.

Economics Program

The Bachelor of Science degree program in Economics provides rigorous training in applied economic analysis. Through the lens of economics, we examine market based applications to community and infrastructure development. All students will be exposed to applications of economic techniques used in public sector, private sector and international business environments. Through the study of standard economic models, students learn to identify, explain and describe the major features and functions of an economy. Successfully completing the major will enable students to analyze, synthesize and evaluate economic, social and business issues.

Consistent with the mission of the University, the Economics Program seeks to (1) provide both majors and non-majors high-quality economics courses that will prepare them for admission to graduate programs in Economics and related areas, or entry to professional employment or community entrepreneurship, and (2) enhance students' knowledge on the structure and operation of the U.S. market-economy in which they will work, and (3) raise the level of awareness and ability of all students to understand the importance of economic issues, including fiscal and monetary policies.

Economics Minor Requirements:

The minor in Economics requires eighteen (18) semester hours of courses in the Economics (ECO) Program including; ECO 200, ECO 201, ECO 202 plus three approved ECO electives.

Curriculum Outline – Economics

Freshman Year	**Semester**	**1st**	**2nd**
English 101-102		3	3
Communication 103		3	-
Computer Science 120		-	3
History 106		3	-
Mathematics 117 or higher		3	-
Mathematics 130 or higher		-	3
Foreign Language (2 semesters of same language		3	3
Natural Science Course		-	3
Physical Education or Health		-	2
University 101		1	-
Total		**16**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
Accounting 203-204		3	3
Economics 201-202		3	3
Management 215-216		3	3
Social Science Course.		3	-
Humanities 201		3	-
Humanities Course		.-	3
Free Elective		.-	2
Total		**15**	**14**

Summer - Lower Division Internship (MBA 211) 1 Credit

Junior Year	**Semester**	**1st**	**2nd**
Economics 301, 302		3	3
Economics 315, 318		3	3
Management 301, 305		3	3
Marketing 305		3	-
Management 323		.-	3
Finance 304		3	-
Social Science Course.		.-	3
Total		**15**	**15**

Senior Year	**Semester**	**1st**	**2nd**
Economics 435, 438		3	3
Management 400		3	-
Economics 440, 404		3	3
Non-business-related elective		3	3
Business-related elective		3	3
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Entrepreneurship Program

The Entrepreneurship Program prepares students for independent leadership. Individuals seeking to develop entrepreneurial skills should obtain an understanding and appreciation for general business practices and procedures in order to establish an effective knowledge base for:

(1) Leadership opportunities;

(2) Business ownership; and

(3) Employment in high growth industries.

Entrepreneurship Minor Requirements:

The minor in Entrepreneurship requires eighteen (18) semester hours of courses in the Entrepreneurship (ETR) Program including; ETR 210, ETR 315, ETR 350, ETR 395 plus two approved ETR electives.

Major Degree Requirements:

The Entrepreneurship Program leads to a Bachelor of Science degree in Entrepreneurship and is designed to produce responsible graduates capable of independent and creative thinking in achieving personal success. Entrepreneurship majors must prepare and present a business plan demonstrating their creative talent, leadership skills, and communication effectiveness.

Curriculum Outline – Entrepreneurship

Freshman Year	**Semester**	**1st**	**2nd**
English 101-102		3	3
Communication 103		3	-
Computer Science 120		-	3
History 106		3	-
Mathematics 117 or higher		3	-
Foreign Language (2 semesters of the same language		3	3
Natural Science Course		-	3
Humanities Course		-	3
Physical Education or Health		-	2
University 101		1	-
Total		**16**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
Accounting 203-204		3	3
Economics 201-202		3	3
Management 215-216		3	3
Social Science Course		3	-
Humanities 201		3	-
Entrepreneurship 210		-	3
Free Elective		-	2
Total		**15**	**14**

Summer - Lower Division Internship (MBA 211) 1 Credit

Junior Year	**Semester**	**1st**	**2nd**
Entrepreneurship 315		3	-
Entrepreneurship 350		3	-
Entrepreneurship 395		3	-
Management 301		-	3
Management 305, 323		3	3
Finance 304		3	-
Marketing 305		-	3
Economics 318		-	3
Social Science Course		-	3
Total		**15**	**15**

Senior Year	**Semester**	**1st**	**2nd**
Entrepreneurship 401, 410		3	3
Management 400		3	-
Entrepreneurship 420		-	3
Non-business-related elective		6	3
Business related elective		3	-
ETR 445 Or ETR 499		-	3
Total		**15**	**12**
Total credits for graduation			**120**

Marketing Program

The Marketing program extends the mission of the University and the School of Business through the education of students in the field of marketing with a global orientation. The program goal is to strengthen the student's abilities to communicate effectively, solve problems, make decisions, analyze, and critically assess concepts and issues in marketing. The program strives to provide an environment that continues to develop the intellectual, emotional and professional growth of its students.

Marketing Minor Requirements:

The minor in Marketing requires eighteen (18) semester hours of courses in the Marketing (MKT) Program including; MKT 305, MKT 311, MKT 328 plus three approved MKT electives.

Marketing Major Degree Requirements:

The program in Marketing offers tracks that lead to the Bachelor of Science degree.

Curriculum Outline – Marketing

Freshman Year	**Semester**	**1st**	**2nd**
English 101-102		3	3
Communication 103		3	-
Computer Science 120		-	3
History 106		3	-
Mathematics 117 or higher		3	-
Foreign Language (2 semesters of same language)		3	3
Natural Science Course		-	3
Humanities Course		-	3
Physical Education (2) or Health (1)		-	2
University 101		1	-
Total		**16**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
Accounting 203-204		3	3
Economics 201-202		3	3
Management 215-216		3	3
Social Science Course		3	3
Humanities 201		3	-
Free Elective		-	2
Total		**15**	**14**

Summer - Lower Division Internship (MBA 211) 1 Credit

Junior Year	**Semester**	**1st**	**2nd**
Marketing 305-307		3	3
Management 301		3	-
Finance 304		3	-
Marketing 311		-	3
Marketing 328		-	3
Management 305, 323		3	3
Non-business-related elective		3	3
Total		**15**	**15**

Senior Year	**Semester**	**1st**	**2nd**
Marketing 411, 427		3	3
Marketing 417, 428		3	3
Management 400		3	-
Marketing 444		-	3
Non-business-related elective		3	-
Business-related elective		3	3
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Department of Management

The Business Management Department provides studies in broad-based management education, allowing flexibility in varied management level careers sought by private and public employers. The objective is to develop the student's understanding of management as both an art and a science, together with managerial skills essential for positions of leadership and responsibility in today's dynamic environment. The management major promotes a generalist interdisciplinary approach that prepares students to work in any business organization. It also allows students, in collaboration with their academic advisor to personalize their plan of study through specialization in a minor or a variety of business and non-business related electives.

Students may take an emphasis in Human Resources Management. Human Resources Management emphasis strengthens the business management major. Students are prepared in management of employees at all organizational levels. Emphasis is on staffing, training and development, labor relations, compensation and benefits, legal aspects of human resources management and selection and recruitment. This is a highly recruited area for undergraduate students. The faculty advises students on the selection of courses for areas of concentration and monitors their academic progress.

Management Minor Requirements:

A minor in business management is earned upon the successful completion of 18 hours in the management discipline as follows: Non-business majors may elect to take a minor in business management to include: MGT 301, 400, 402, plus any three courses selected from the following courses: MGT 300, 305,306, 312, 321, 323, MGT 418,417. Business majors may not use MGT 301, 400, or 402 as part of the Minor in Management.

Management Major Requirements:

Business Management majors must take MGT 300, 312, 321, 360, 402, 499 for a total of 18 semester hours beyond the Business Core Requirements as reflected in the Curriculum Outline below.

Curriculum Outline – Management

The program requires a total of 120 credit hours for the Bachelor of Science degree with specialized courses in Management. Students will be required to take general education courses, and elective courses related to their concentration. The course sequence normally followed is as listed below.

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101 Written Communication		3	-
ENG 102 Written Communication		-	3
COM 103 Oral Communication		3	-
HIS 106 World Civilization		3	-
MAT 117 Pre-Cal or Higher		3	-
Foreign Language - (2 semesters of same language		3	3
UNV 101 Individual & Life		1	-
CSC 120 Computer Intro		-	3
Natural Science Course		-	3
Non Business Elective		-	3
Health (1) or Physical Edu. (2		-	2
Total		**16**	**17**

Sophomore Year	Semester	1st	2nd
Social Science Course		3	3
HUM 201 Humanities I		3	-
Free Elective		-	2
ECO 201 Macro Principles		3	-
ECO 202 Micro Principles		-	3
ACC 203 Accounting Principles I		3	-
ACC 204 Accounting Principles II		-	3
MGT 215 Principles of Statistics		3	-
MGT 216 Quantitative Methods		-	3
Total		**15**	**14**

Summer - Lower Division Internship (MBA 211) 1 Credit

Junior Year	Semester	1st	2nd
MKT 305 Principles of Marketing		3	-
MGT 301 Business Organization & MGT		3	-
MGT 305 Legal Environment of Business		3	-
MGT 323 Information/DP Systems		3	-
MGT 340 Business Communications		3	-
FIN 304 Business Finance		-	3
MGT 300 Business Research		-	3
MGT 312 Personnel/HR Management		-	3
MGT 321 MGT of International Business		-	3
Non Business Electives		-	3
Total		**15**	**15**

Senior Year	Semester	1st	2nd
MGT 400 Organizational Behavior		3	-
MGT 402 Production/Operations MGT		3	-
Business Related Elective		6	3
MGT 499 Bus. Policy & Strategy		-	3
Non Business Related Elective		-	6
Humanities Course		3	-
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Management Major with Management Information Systems (MIS) Emphasis:

Business Management majors with an emphasis in Information Systems must take CSC 200/MIS 209; CSC 316/MIS 302; CSC 323/ MIS 401; CSC 325/MIS 403; MIS 309/CIS 320 & MIS 406/CIS 410 for 18 semester hours as reflected in the Curriculum Outline below.

Curriculum Outline - Business Management (Management Information Systems Emphasis)

Freshman Year	Semester	1st	2nd
ENG 101 Written Communication		3	-
ENG 102 Written Communication		-	3
COM 103 Oral Communication		3	-
HIS 106 World Civilization		3	-
MAT 117 Pre-Calculus or higher		3	-
Foreign Language – (2 semesters of same language		3	3
UNV 101 Individual & Life		1	-
CSC 120 Computer Introduction		-	3
Natural Science Course		-	3
Health (1) or Physical Education (2		-	2
Total		**16**	**14**

Sophomore Year	Semester	1st	2nd
Social Science Course		3	3
HUM 201 Humanities I		3	-
Free Elective		-	2
ECO 201 Macro Principles		3	-
ECO 202 Micro Principles		-	3
ACC 203 Accounting Principles I		3	-
ACC 204 Accounting Principles II		-	3
MGT 215 Principles of Statistics		3	-
MGT 216 Quantitative Methods		-	3
Total		**15**	**14**

Summer - Lower Division Internship (MBA 211) 1 Credit

Junior Year	Semester	1st	2nd
MKT 305 Principles of Marketing		3	-
MGT 301 Business Organization & MGT		3	-
MGT 305 Legal Environment of Business		3	-
MGT 323 Information/DP Systems		3	-
MGT 340 Business Communication		3	-
FIN 304 Business Finance		-	3
MGT 300 Business Research		-	3
MGT 312 Personnel/HR Management		-	3
MGT 321 Management of International Business		-	3
MIS 302/ CIS 316		-	3
Total		**15**	**15**

Senior Year	Semester	1st	2nd
MGT 400 Organizational Behavior		3	-
MGT 402 Production/Operations MGT		3	-
MIS 323/ CIS 310		3	-
MIS 309/ CIS 320		3	-
MIS 401/ CIS 323		3	-
MGT 499 Business Policy & Strategy		-	3
MIS 403/CIS 325		-	3
MIS 406/CIS 410		-	3
Free Elective		-	3
Humanities Course		-	3
Total		**15**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

Department of Business Administration

The Department of Business Administration offers an integrated five-year undergraduate/graduate program leading to two degrees upon completion: Bachelor of Science in Business Administration (B.S., at the end of 3.5 years) and Master of Business Administration (MBA, at the end of five years). The Department also offers a separate two-year Master of Business Administration (MBA) program for working professionals.

Five-Year Undergraduate and Graduate MBA Program

The five-year MBA program includes 157 academic hours of coursework with an embedded undergraduate degree in Business Administration (Bachelor of Science). Competencies in the five-year MBA are achieved through an interdisciplinary approach. This approach includes liberal education curriculum; broad accounting, technology and engineering-based business background; interpersonal skills; and, structured and varied work experiences through internship.

Professional application and refinement activities are required to insure business sophistication and the internalization of professional and critical thinking skills as well as to build strong moral character.

The Leadership Application Program

The objective of the five-year MBA is to prepare students for professional positions in the management of organizations of varying sizes and with differing business goals and objectives. The Leadership Application Program is designed to assure the development of non-technical behavior-based competencies, which transcend individual disciplines in the dynamic world of business. The Program requires a conservative professional appearance. Students are encouraged to inquire about any personal concerns regarding a conservative professional appearance.

Admission Requirements

The five-year MBA program is a rigorous, time absorbing and demanding academic program of study. The curriculum is structured with a built-in case and team-based methodology of real-world intensity. Incoming Freshman undergraduate students will be admitted to the Program with a minimum SAT score of 1050 or minimum ACT score of 22, impressive high school transcripts and three strong personal references. Continuing students are allowed to transfer if they have an excellent academic record at Hampton University. A merit-based criterion of transferring into the 5-year MBA program is determined by the Department.

Program Flexibility

Although the professional MBA is a broad, general degree, concentrations may be acquired by taking business and free electives in an area of specialty consistent with their professional interests. Students desiring a concentration in accounting leading to eligibility to take the Uniform CPA Examination can do so by selecting accounting courses for their free electives and graduate business electives.

Internship

Students in the MBA program are required to complete two Career Center-approved and Department-approved internships. Students must complete one compensated internship at the undergraduate level and another at the graduate level. A second compensated internship must be completed in order to complete academic work for a MBA degree.

Continuance in the Program

Development, in this demanding and competitive MBA program, is both integrative and cumulative. Therefore, students who fail to maintain the required GPA (as shown below) for any semester will be counseled to pursue other majors.

At the end of	Required GPA
2nd year	3.25
3rd year	3.25
4th year	3.25
5th year	3.00

Entrance into the 5th Year

Completion of the bachelor's program in Business Administration with permission of the Department Chair, a minimum 3.25, graduate application, and letter of recommendation are required to continue to the master's level. Otherwise a score of 400 on the GMAT Test, in addition to the previously stated requirements, is required for admission and must be submitted within one semester following the earning of the Bachelor of Science in Business Administration.

Retention Requirements for Graduate Program

A minimum grade of "B" is expected in all MBA courses. An overall grade point average of 3.0, is necessary to graduate. Students receiving more than two "C" grades in 500 and 600 designated graduate coursework or below 3.00 GPA in graduate course work are considered on probation. If a student has more than two '' grades below "B", they must retake coursework to be compliant with the Graduate School requirement of overall Hampton University GPA of 3.00 and no more than two grades below B. Students with three "C" grades in graduate school will be suspended for at least one semester if their cumulative grade point average is above 3.00. Students will be dropped from the program if their cumulative grade point average falls below 3.0 and they have three "C" grades in 500 and 600 level courses.

Curriculum Outline-

Business Administration/MBA

Freshman Year	**Semester**	**1st**	**2nd**
CSC 120 (MBA Majors Only Section)		3	-
EGR 101		-	2
ENG 101, 102		3	3
Free Elective		2	-
HIS 106, 107		3	3
LAP 101		-	1
MAT 117, 130		3	3
MBA 201		-	3
MBA 300		2	-
PED 121		-	1
PED 137		-	1
UNV 101		1	-
TOTAL		**17**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
COM 103		-	3
ECO 201, 202		3	3
FIN 290 Personal Finance		3	-
HUM 201 Humanities I		3	-
Humanities Course		-	3
LAP 214, 224		2	2
MBA 203, 313		3	3
MBA 200		3	-
MBA 202		-	3
TOTAL		**17**	**17**
Summer–Rising Junior MBA 211- (Summer Internship)			**1**
Junior Year	**Semester**	**1st**	**2nd**
Physical Science Elective		-	3
ETR 401		-	3
FIN 304		3	-
Foreign Language		3	3
LAP 314, 324		2	2
MBA 314, 315		3	3
MBA 323 , 552		3	3
MGT 301		3	-
TOTAL		**17**	**17**

Senior Year	**Semester**	**1st**
Business Elective		3
LAP 515		2
MBA 500		3
MBA 502		3
MBA 513		3
Free Elective		3
TOTAL		**17**

UNDERGRADUATE B.S. DEGREE EARNED AT 120 CREDIT HOURS

Fourth Year Second Semester (Graduate)	**2nd**
LAP 525	2
MBA 503	3
MBA 681	3
MBA Business Elective/Graduate Level	3
TOTAL	**11**

Summer Internship MBA 511 **1**

Fifth Year First Semester (Graduate)	**1st**
LAP 615	1
MBA 506	3
MBA 600	3
MBA 610	3
MBA 630	3
TOTAL	**13**

Fifth Year Second Semester (Graduate)	**2nd**
MBA 620 OR 608	3
MBA 690	3
MBA 601	3
MBA Business Elective/Graduate Level	3
TOTAL	**12**

MBA EARNED WITH 37 CREDIT HOURS

TOTAL CREDITS FOR GRADUATION **157**

**It is strongly suggested that students attend Pre-College before beginning the first year of the five-year MBA curriculum.*

Two-Year Graduate MBA Program

The Master of Business Administration program is designed to provide individuals with the expertise needed to become effective, professional, senior-level managers. The curriculum provides a general management emphasis, which encompasses both the basic disciplines that underlie management and the operational areas specific to business. The courses provide an understanding of the components of managerial decision making and provide students with a perspective on the role of business as an economic, political, and social institution. The overall goal of the program is to prepare leaders and scholars who will assume pivotal roles in academic and business organizations. Further details are provided in the Graduate College section of this catalog.

Two Year MBA Curriculum Outline

MBA 500 World Culture	3
MBA 503 Financial Statement Analysis	3
MBA 625 Marketing Management	3
MBA 630 Legal Environment of Business	3
MBA 651 Macro Environment of Business	3
MBA 660 Information Systems Development or MBA 608 Advanced Info Systems	3
MBA 675 Managerial Finance or MBA 506 Investment Analysis & Portfolio	3
MBA 681 Organizational Theory/ Development	3
MBA 690 Strategy Business Policy	3
SubTotal	**27**
Electives in the MBA Curriculum	9
Total Academic Credit Hours	**36**

This number does not include any prerequisite courses that may have been identified as admission criteria to the MBA Program.

Doctor of Philosophy Degree in Business Administration

This doctoral program in Business Administration is designed to provide individuals who desire an advanced degree in business an opportunity to excel in their careers. The program responds to current MBA or technical graduate students aspiring to become consultants or professors. Admission requires that all students take the Graduate Management Admission Test (GMAT) unless it has been taken within the previous five years and a minimum score of 400 was earned. The program appeals to existing professionals at universities who aspire towards advanced degrees to enhance leadership roles in administrative positions. This is a hybrid Ph.D. program in Business which includes a summer residency requirement of two summers at four weeks each. There will be online courses provided during the academic year. Hence, the program is suitable for busy professionals seeking an advanced degree in business to increase their credentials in their current or future industry role and/or for advancement in academia or entrance to academic careers. Further details are provided in the Graduate College section of this catalog.

I. Curriculum Focus: Marketing/Management or Finance/ Accounting

The program requires completion of approximately 60 credit hours

REQUIRED COURSES

BLAO 701R Organizational Behavior	3
BLAO 702R Organization Theory and Practice	3
BLAO 703R Advanced Computer Applications	3
BLAO 704R Advanced Topics in Research	3
BLAO 760R Behavioral Research Methods	3
BLAO 761R Empirical Research Methods	3
BLAO 706R Teaching Methodology	1
*BLAO 707R/Pre-proposal Presentation	2
BLAO 740R Managerial Economics	3
BLAO 800 Dissertation I	4
**BLAO 805 Dissertation II	4
BLAO 810 Dissertation III	4
BLAO 815 Dissertation Defense	0
Total Hours	**36**

Electives in the Ph.D. Curriculum

Electives will be selected based on the student's focus: Marketing/ Management or Finance/ Accounting

BLAO 720 Financial Accounting and Reporting Research	3
BLAO 721 Contemporary Issues in Accounting Seminar	3
BLAO 722 Accounting Theory	3
BLAO 723 Tax Planning and Research	3
BLAO 724 Special Topics in Taxation	3
BLAO 725 Seminar in Accounting Research	3
BLAO 730 Financial Economics	3
BLAO 731 Corporate and Financial Institution	3
BLAO 732 Behavior Finance	3

BLAO 733 Theory of Finance 3
BLAO 734 Concepts of Investment Decisions..... 3
BLAO 735 Advanced Topics in Finance 3
BLAO 741 Issues in Operations Management..... 3
BLAO 742 Seminar in Strategic Policy Management 3
BLAO 743 International Management 3
BLAO 744 Organizational Change Theory..... 3
BLAO 745 Advanced Decision Support Systems 3
BLAO 750 Marketing Management 3
BLAO 751 Emerging Issues in Marketing..... 3
BLAO 752 Product Planning Seminar 3
BLAO 753 Behavioral Research in Marketing..... 3
BLAO 754 Quantitative Research in Marketing: Strategic Models and Methods..... 3
BLAO 755 Theories of Attitude and Persuasion..... 3
Total Elective Hours Needed 24

Note: Students enrolled in the program may select six graduate level courses that will result in at least 18 hours of subject matter in a discipline at the graduate level.

**Major coursework chosen from BLAO 720 to BLAO 735 for Accounting/Finance track and from BLAO 741 to BLAO 755 for Marketing/Management track. Courses outside the major coursework list, may be taken for Minor coursework.*

** A maximum of 8 credit hours can be earned in this course by taking it for four semesters*

*** A maximum of 24 credit hours can be earned in this course by taking it for six semesters.*

II. Program matriculation requirements: Summer residencies, On-campus coursework, and Online coursework

First Summer Residency
BLAO 701R Organizational Behavior..... 3
BLAO 703R Advanced Computer Applications 3
BLAO 704R Advanced Topics in Research 3
BLAO 740R Managerial Economics..... 3
Total 12

First Fall Semester (Online)

8 week session
Elective..... 3
8 week session
Elective..... 3
Total 6

First Spring Semester (Online)

8 week session
Elective..... 3
8 week session
Elective..... 3
Total 6

Second Summer Residency
BLAO 702R Organization Theory and Practice 3
BLAO 760R Behavioral Research Methods..... 3
BLAO 761R Empirical Research Methods 3
*BLAO 707R Pre-Proposal Presentation..... 2
BLAO 706R Teaching Methodology..... 1
Total 12

Second Fall Semester (Online)
Article Completion (Register for Pre-proposal)

8 week session
Elective..... 3
8 week session
Elective..... 3
Total 6

Second Spring Semester (Online)

8 week session
Elective..... 3
8 week session
Elective..... 3
Total 6

Summer
Comprehensive Exam
(Complete Application & Register for class according to Ph.D. Coordinator's directions)

Third Fall Semester (Online)
8 week session
BLAO 800 Dissertation I 4
BLAO 805 Dissertation II 4
Total 8

Third Spring Semester (Online and Formal Presentation)
8 week session
**BLAO 810 Dissertation III 4
BLAO 815 Dissertation Defense..... 0
Total..... 4
Total credits for PhD.graduation 60

School of Engineering and Technology

The School of Engineering and Technology offers programs leading to the Master of Architecture degree in Architecture, and the Bachelor of Science degree in Aviation, Chemical Engineering, Computer Engineering, and Electrical Engineering. These programs are designed to provide students with an education that prepares them to enter the profession of choice and/or graduate studies. In addition to the core program offerings, students obtain a well-rounded general education that facilitates awareness of the professional's social responsibilities to the community.

Facilities

Programs in the School of Engineering and Technology are housed in four buildings: the Science and Technology Building (Aviation), Whipple Barn (Aviation - Air Traffic Control), Bemis Laboratory Building (Architecture), and the Olin Engineering Building (Chemical, Computer and Electrical Engineering).

Active research programs are maintained across the School. Qualified students are encouraged to participate in research and in activities associated with formal partnerships and collaborations that have been established between the School of Engineering and Technology and scientific organizations. Examples of such are: the NSF's Partnership for Research in Education and Materials (PREM) program that was awarded between Hampton University-based materials science researchers and colleagues at the Brandeis University Materials Research Science and Engineering Center (MRSEC); the Beckman Laser Institute (BLI) at UC Irvine has partnered with Hampton University for a collaborative "Pathways to Biophotonics and Biomedical Engineering (PBBE)" grant which supports up to 10 undergraduate engineering students from HBCUs; and Northeastern University has a NSF "Student Pathways Opening World Energy Resources" grant that takes qualifying B.S. students from Hampton University to study in their graduate programs. Additional associations exist with the Thomas Jefferson National Accelerator Facility (Jefferson Lab), National Aeronautics and Space Administration Langley Research Center (NASA-LaRC), Brookhaven National Laboratory (BNL) and Glenn Research Center (NASA-GRC), Cooperating Hampton Roads Organization for Minorities in Engineering (CHROME), Advancing Minorities' Interest in Engineering (AMIE), and the Southeastern Consortium for Minorities in Engineering (SECME). Many other opportunities for students to participate in scientific research and technical work experience are available through the U.S. Army Corps of Engineers and individual faculty research grants and contracts.

Admissions Requirements

Prospective majors in the School of Engineering and Technology must adhere to the general admission procedures established by the University. Additional criteria for freshman admission are described in the specific program of study.

Financial Aid

Students applying for financial aid must adhere to the criteria and procedures described in the section on Student Financial Aid in this Catalog. The School of Engineering and Technology awards special scholarships to deserving students on the basis of criteria formulated for each scholarship.

General Program Requirements

Course requirements for academic programs within the School of Engineering and Technology can only be modified by special permission. All course adjustments, such as substitution or waiver of major or related area courses, require recommendation by the chair of the department in which the student is enrolled and the approval of the School Dean. The Provost must approve any adjustments in General Education requirements. The General Education curriculum is applicable to all major disciplines in the School. Any exceptions are noted in the sequences that are listed for a given major.

Architecture, a five-year master's program, requires all of its second-year design studio students to possess a laptop computer for class use.

Department of Architecture

The Hampton University Department of Architecture is an accredited Architecture Program, geared towards those who desire preparation to engage in a critical practice of architecture. Architecture students in the first four years of the curriculum are classified as Undergraduate Students (UG). Upon successful completion of the undergraduate curriculum, students progress to the fifth year as Architecture Professional Students (AP). After completing fifth year requirements students graduate with a Master of Architecture (M.ARCH) degree.

We believe that architectural education offers unique possibilities, which allow our students to face and lead the broad challenges confronting societies, from the level of individuals, to neighborhoods, and to nations. We are dedicated to promoting a global environmental sensitivity, and developing an ability in students to bring about important social and environmental change, especially in transitional urban areas and communities of color. The Department sets the framework for the investigation of architecture as a way of thinking about this world. We strive to provide an integration of:

a. individual imagination with communal responsibilities;

b. theoretical insights with pragmatic speculations;

c. conceptual gestures with tectonic articulation;

d. contemporary interpretations with histories of architecture.

Accreditation and Professional Degree Requirements

Statement From The National Architectural Accrediting Board (NAAB):

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting

Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an 8-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may require a pre-professional undergraduate degree in architecture for admission. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Hampton University, School of Engineering and Technology, Department of Architecture offers the following NAAB-accredited degree program:

M. Arch. (Single Institution (SI), 168 credits) Next accreditation visit for the program: 2023

Admission Requirements

The Department of Architecture adheres to the entry requirements established by the University Office of Admission. However, the department restricts enrollment to students meeting the following criteria: l) SAT score of 960 or above, and 2) a minimum Math SAT score of 480. Applicants not meeting the above requirements will be refused admission, but may be referred by the Admissions Office to the department for review. Transfer students seeking advanced placement in the design studio must submit a portfolio of work completed at the previous college or university for review. No transfer credit will be given for the fifth-year design studios. Freshman students will be given a mathematics placement test. Students who do not qualify for Mathematics 117 will be placed in a lower level preparatory course. The first year of the five and one-half-year program is considered the foundation/pre- architecture year. Enrollment in the foundation program is open to any student admitted to the University. Progression to the second year requires review and acceptance of a portfolio of the student's Pre-architecture work by the faculty. Because much of the architecture curriculum is sequentially structured, prerequisites must have been completed with acceptable grades before advancing to the next level of courses.

Prerequisites

All prerequisites for architecture courses must be completed with a grade of "C" or better.

Progression Through the Curriculum

Architecture students must have completed all 100 and 200 level Architecture courses, as well as MAT 118 and PHY 201, before being admitted to the third-year design studio at Hampton University. Students admitted to the third-year design studio must have earned a 2.3 cumulative GPA in major (ARC) courses. Students must also successfully complete all 300 level Architecture courses before being admitted to the fourth-year design studio.

For admittance to fifth-year design studio and AP status, students must have successfully completed the full undergraduate curriculum (only 500 and 600 level courses remain) with a cumulative GPA of 2.5.

Advising

The curriculum in architecture is designed to make horizontal and vertical connections as the student proceeds through the program. Students should plan their schedule by consulting with an assigned advisor. The student is responsible for consulting with the assigned advisor and for following the curriculum outline.

Dismissal

Students are limited to two repeats in a major course (a total of three attempts). Students not earning a passing grade in a major course after the three attempts will be dismissed from the program and not recommended for readmission.

Requirements for Graduation

1. A minimum of 168 credits as listed in the five-year curriculum sequence.
2. A minimum of 30 semester hours of credit earned at Hampton University.
3. A passing grade of "C" or better in all major courses.
4. A passing grade of "C" or better in all related courses (MAT 118, PHY 201 and courses prerequisite to this sequence).
5. A cumulative grade point average of at least 2.0 and a grade point average of 2.0 in major courses.
6. Successful completion of the fifth-year design studio and design thesis.

Program Fees

Students enrolled in the Master of Architecture degree program will be assessed a $400.00 travel, technology and materials fee for the semester. The fee will be assessed on a term/semester basis. This fee allows students access to department technology, including printing. It also helps defray the cost of student required international and domestic travel, and assists with freshman materials. Materials do not include textbooks.

Requirements for Personal Computer

Students entering the second-year design studio are required to have a laptop computer with appropriate software for class use. Platform specifications and software requirements will be furnished by the department.

Terminal Design/Thesis

The Design Thesis sequence includes ARC 601 and ARC 602. These two courses must be taken in the Department of Architecture at Hampton University. No transfer credit from other institutions for these courses will be considered. The thesis course instructor and the student's faculty thesis advisor, acting as a committee, are responsible for determining passing or failing of each thesis project. The thesis course instructor/coordinator along with the students are responsible for the approval of the thesis topic, outline and for guiding the student through to the completion of the project. There shall be scheduled, required reviews throughout the semester, with a required final review by the department faculty at the end of the semester. After the final review, the instructor and advisor will determine the pass/fail status of each thesis student. The thesis studio instructor/coordinator will assign the final letter

grade based upon the pass/fail determination of the student's committee. The department faculty shall also determine the best thesis. (See the Department Guidelines for Fifth-Year Thesis Projects).

Summer Semester/Travel Requirement

The Master of Architecture program requires a summer semester after the Junior Year (third-year design studios), consisting of ARC 305 International Travel Studio and ARC 306 International Urban Design Studio. As part of this semester, students are required to take an International Urban Design Study Tour. Duration of travel will vary. The student will bear his or her expenses for such trip.

Summer Semester/Community Design Internship

Students are required to complete a supervised non-credit internship experience involving environmental design work. The internship shall be a minimum of 120 hours/4 weeks. The internship may be undertaken after successful completion of ARC 304 (third-year design studios). (See the Department Guidelines for Community Design Internships).

Professional Clubs

Architecture students may join chapters of the American Institute of Architecture Students (AIAS) and the National Organization of Minority Architecture Students (NOMAS).

Adaptation to Sea Level Rise

The Hampton University Department of Architecture, as part of the Coastal Community Design Collaborative, offers a concentration in Adaptation to Sea Level Rise. This program is one of six design studios working together nationally to study resilience for the American Institute of Architects, the Rockefeller Foundation, and the Clinton Global Initiative.

Curriculum Outline – Master of Architecture (M.Arch)

First Year	**Semester**	**1st**	**2nd**
Architecture 101-102		5	5
Architecture 207-208		3	3
English 101-102		3	3
Art Elective		-	3
Mathematics 117/Elective		3	-
University 101		1	-
Mathematics 118		-	3
Total		**15**	**17**

Second Year	**Semester**	**1st**	**2nd**
Architecture 200		3	-
Architecture 201-202		5	5
Architecture 203-204		3	3
Architecture 213		-	3
Architecture 309		-	3
Art Elective		2	-
Physics 201		4	-
Communications 103		-	3
Total		**17**	**17**

Third Year	**Semester**	**1st**	**2nd**
Architecture 303-304		6	6
Architecture 310		3	-
Architecture 314-315		3	3
Architecture 317		-	3
Architecture 301		-	1
Elective		3	-
Humanities 201		3	-
History 106		-	3
Total		**18**	**16**

Summer One

Architecture 305	3
Architecture 306	3
Total	**6**

Fourth Year	**Semester**	**1st**	**2nd**
Architecture 405-406		6	6
Architecture 411		-	3
Architecture 414		3	-
Architecture 517-518		3	3
Architecture 516		3	-
Electives		-	3
Social Science Electives		3	3
Total		**18**	**18**

Summer Two

Internship non-credit

Fifth Year	**Semester**	**1st**	**2nd**
Architecture 601-602		6	6
Architecture 617-618		3	3
Architecture 530 Electives		3	3
Physical Education Electives		1	1
Total		**13**	**13**
TOTAL CREDITS FOR GRADUATION			**168**

**See advisor for list of approved electives at Architecture Professional level.*

Curriculum Outline – Master of Architecture, Adaptation to Sea Level Rise

First Year	**Semester**	**1st**	**2nd**
Architecture 101-102		5	5
Architecture 207-208		3	3
English 101-102		3	3
Art Elective		-	3
Mathematics 117/Elective		3	-
University 101		1	-
Mathematics 118		-	3
Total		**15**	**17**

Second Year	**Semester**	**1st**	**2nd**
Architecture 200		3	-
Architecture 201-202		5	5
Architecture 203-204		3	3
Architecture 213		-	3
Architecture 309		-	3
Art Elective		2	-
Physics 201		4	-
Communications 103		-	3
Total		**17**	**17**

Third Year	**Semester**	**1st**	**2nd**
Architecture 303-304		6	6
Architecture 310		3	-
Architecture 314-315		3	3
Architecture 317		-	3

Architecture 301	-	1
Humanities 201	3	-
History 106	-	3
Marine and Environmental Science 130	3	-
Total	**18**	**16**

Summer One

Architecture 305	3
Architecture 306	3
Total	**6**

Fourth Year	**Semester**	**1st**	**2nd**
Architecture 405-406		6	6
Architecture 411		-	3
Architecture 414		3	-
Architecture 517-518		3	3
Architecture 516		3	-
CEE 458 (at ODU)		-	3
Social Science Electives		3	3
Total		18	18

Summer Two

Internship	non-credit

Fifth Year	**Semester**	**1st**	**2nd**
Architecture 601-602		6	6
Architecture 617-618		3	3
Architecture 531-532		3	3
Physical Education Elective		3	3
Total		**13**	**13**
TOTAL CREDITS FOR GRADUATION			**168**

**See advisor for list of approved electives at Architecture Professional level.*

Minor in Architecture

The following courses are required to complete a minor in Architecture. All courses must be completed with a grade of C or better.

ARC 101	Design Fundamentals I
ARC 102	Design Fundamentals II
ARC 200	Architectural Ecology
ARC 203	Representation I
ARC 207	Architectural History I
ARC 208	Architectural History II
ARC 213	Elements of Building Assembly
ARC 317	Global Theories of Urban Design
ARC 309	Structures I
ARC 314	Building Assemblies
ARC 517	Professional and Community Design Practice I
	2 Architectural Electives
TOTAL CREDITS IN MINOR	**43**

Department of Aviation

The Department of Aviation offers Associate of Science (A.S.) and Bachelor of Science (B.S.) degree programs in the following areas: Flight Education and Aviation Management with concentrations in Air Traffic Control and Airport Administration.

Mission Statement

The Department of Aviation in the School of Engineering and Technology provides students with preparation for a variety of careers in aviation. Combined with a strong liberal arts background, the aviation program prepares students to participate in building the future of the aviation industry. The Department also prepares its students to be professionals by demonstrating the value of lifelong learning through research projects and the value of service to the University, aviation profession, and community.

The Department of Aviation is committed to providing high-quality aviation education for all its students with faculty actively involved in advancing the aviation community as a whole. We strive to prepare students for meaningful aviation careers within government and the aerospace industry, and to instill a strong sense of social awareness and responsibility to the public. The Department of Aviation has established itself as a high-quality Bachelor of Science degree program with a national reputation for outstanding graduates.

Program Objectives & Goals

- Provide an educational setting and methodology that prepares graduates to compete for meaningful careers within the field of aviation.
- Provide an atmosphere conducive to the encouragement of analytical thought appropriate for professional and administrators in aviation.
- Encourage and develop student growth as responsible, perceptive citizens, imbued with the distinctive ethical code and culture of Hampton University.
- Encourage participation in national organizations, which will provide graduates with a network of support for their chosen career path.
- To facilitate intern/cooperative opportunities for students with the Aviation industry.

Accreditation

All Bachelor of Science Aviation programs are accredited by the Aviation Accreditation Board International (AABI). Every aviation student is provided with a strenuous academic curriculum, which is fully accredited and ensures each student earns an aviation-specific degree from a nationally recognized program.

Facilities

In addition to ample modern classrooms, laboratory facilities include a high fidelity air traffic control radar simulator, a low fidelity control tower simulator, flight simulators, and student computer laboratory. All laboratory facilities are available for student practice, self-study and coursework.

Professional Clubs

Aviation students may join chapters of American Association of Airport Executives (AAAE), Organization of Black Aerospace Professionals (OBAP), and Women in Aviation (WIA). Students also have the opportunity to be a part of the Student Aviation Leadership Team (S.A.L.T) and the National Intercollegiate Flying Association (NIFA) team.

Admissions

Students concentrating in Flight Education must pass a medical examination administered by a Federal Aviation Administration designated Medical Examiner. Students pursuing Aviation Man-

agement, Air Traffic Control degrees are highly encouraged to take an FAA Class 2 physical prior to classes to determine if they meet FAA hiring requirements. Flight Education majors incur additional fees for flight training.

Departmental Requirements

Every Aviation student is expected to take the courses listed in the curriculum outline for the student's concentration but the following course substitutions are allowed:

- Any higher level calculus course will substitute for the precalculus or calculus requirement.
- Any of the other approved "Life Science" courses in the General Education Core will substitute for BIO 101.
- Any of the other "Physical Science" courses in the General Education Core will substitute for CHE 150.
- Statistics courses: MAT 205, MAT 305, POL 346 and SOC 346 may substitute for MGT 215 to meet the Aviation requirement for a course in statistics.
- Physical Training in the AROTC and NROTC programs may substitute for physical education requirements.
- AVN 300 Cooperative Work Study, and AVN 400 Cooperative Work Study are interchangeable. Both are in the curriculum to allow students two opportunities to work with industry. Either fills the requirement.
- APS 401 and MGT 300 may substitute for AVN 455. Students in the Aviation Management degree program must take AVN 453 in addition to APS 401 or MGT 300 in order to receive full credit for AVN 455 (6 credit hrs.).

Program Requirements

A minimum grade of "C" is required for all Aviation degree program courses having the identifiers listed below:

AVN, AVNO, MGT, MGTO

In addition, Air Traffic Control majors registered in the Federal Aviation Administration (FAA) Collegiate Training Initiative program must graduate with at least a 2.5 GPA and have had demonstrated professional conduct throughout the program to be considered for recommendation to the FAA.

Program Fees

Program fees are subject to change based on requirements of flight education and are not associated with Hampton University costs. See your aviation program manager for specific program related costs.Aviation majors enrolled in the Bachelor of Science Aviation Management Air Traffic Control degree program will be assessed a $250.00 technology and materials fee for the semester. The fee will be assessed on a term/semester basis. This fee allows students access to departmental technology and materials resources for study and practice. Materials DO NOT include textbooks, if required.

Flight Education majors will incur on-going fees for the use of aircraft, fuel, and flight instructors. These fees are assessed and collected by the flight school prior to each flight. Flight fees require additional funds. The department will provide transportation to and from the airport during normal lab hours for all Flight Education majors.

Minor in Aviation

An Aviation Minor requires eighteen (18) credit hours as listed below. Students who plan to minor in Aviation should discuss class schedules with a faculty advisor in the Aviation Department. Minors must earn a "C" or better in each Aviation course. Upper level Aviation classes may be substituted on a case by case basis with Department Chair approval. The minimum requirements for a minor in Aviation are:

Course	Title	Cr. Hr.
AVN 153	Aviation Foundations I	3
AVN 170	ATC Foundations	3
AVN 181	Intro to Airport Systems	3
AVN 201	Flight Safety	3
AVN 354	Aviation Legislation	3
AVN 353	Aviation Management	3
Total Hrs		**18**

Majors in Aviation

Aviation degree requirements are reflected in the following Curriculum Outlines for the aviation concentrations.

Curriculum Outline – Bachelor of Science, Aviation Management, Air Traffic Control Concentration

1ST YEAR

Fall

APS 101	Weather & Climate	3
AVN 151	Aviation Seminar (Pass/Fail)	1
AVN 162	Private Pilot Ground School	3
AVN 181	Introduction to Airport Systems	3
ENG 101	Written Communication I	3
UNV 101	University Life	1
Total		**14**

Spring

AVN 152	Aviation Seminar (Pass/Fail)	1
AVN 153	Aviation Foundations I	3
AVN 170	ATC Foundations	3
HIS 106	World Civilizations II	3
ENG 102	Written Communication I	3
HEA/PE	HEA/PE	2
Total		**15**

2ND YEAR

Fall

AVN 251	Aviation Seminar	1
AVN 201	Flight Safety	3
AVN 271	Terminal Radar Operations I w/ lab	5
COM 103	Oral Communication	3
ECO 201	Economics I	3
Total		**15**

Spring

AVN 252	Aviation Seminar	1
AVN 254	Crew Resource Management	3
AVN 371	Terminal Radar Operations II w/lab	5

AVN 290	Intro to Unmanned Aircraft Systems	3
SOC SCI	Economics/Airport Finance	3
Total		**15**

3RD YEAR

Fall

ACC 203	Principles of Accounting I	3
AVN 351	Aviation Seminar	1
AVN 353	Aviation Management	3
AVN 272	Tower Operations I w/ lab	5
MGT 215	Principles of Statistical Analysis	3
Total		**15**

Spring

HUM 201	Humanities I	3
AVN 352	Aviation Seminar	1
AVN 372	Tower Operations II w/ lab	5
AVN 354	Aviation Legislation	3
MAT/SCI	MAT 117 or higher	3
MGT 301	Business Org. and Management	3
Total		**18**

4TH YEAR

Fall

AVN 451	Cooperative Work Study	3
AVN 455	Aviation Research	6
AVN 470	Air Traffic Management	3
AVN 471	ATSA Prep	1
Total		**13**

Spring

AVN 356	Air Transportation	3
AVN 452	Airline Operations	3
AVN 454	Senior Practicum/Capstone	3
HUM/ ART/ THE/ MUS/ REL/ HIS/		3
MGT 400	Organizational Behavior	3
Total		**15**

Total Degree Hours **120**

Curriculum Outline – Bachelor of Science, Aviation Management, Airport Administration Concentration

1ST YEAR

Fall

APS 101	Weather & Climate	3
AVN 151	Aviation Seminar (Pass/Fail)	1
AVN 162	Private Pilot Ground School	3
AVN 181	Introduction to Airport Systems	3
ENG 101	Written Communication I	3
UNV 101	University Life	1
Total		**14**

Spring

AVN 152	Aviation Seminar (Pass/Fail)	1
AVN 153	Aviation Foundations I	3
AVN 170	ATC Foundations	3
HIS 106	World Civilizations II	3
ENG 102	Written Communication II	3
HEA/PE	HEA/PE	2
Total		**15**

2ND YEAR

Fall

ACC 203	Principles of Accounting I	3
AVN 251	Aviation Seminar (Pass/Fail)	1
AVN 201	Flight Safety	3
AVN 281	Airport Operations I (Landside)	3
COM 103	Oral Communication	3
HUM 201	Humanities I	3
Total		**16**

Spring

ACC 204	Principles of Accounting II	3
AVN 252	Aviation Seminar (Pass/Fail)	1
AVN 254	Crew Resource Management	3
AVN 282	Airport Operations II (Airside)	3
AVN 290	Intro to Unmanned Aircraft Systems	3
MAT/SCI	MAT 117 or higher	3
Total		**16**

3RD YEAR

Fall

AVN 351	Aviation Seminar (Pass/Fail)	1
AVN 353	Aviation Management	3
ECO 201	Economics I	3
HUM/HIS	HUM/ ART/ THE/ MUS/ REL/ HIS/	3
MGT 301	Business Org. and Management	3
MGT 215	Principles of Statistical Analysis	3
Total		**16**

Spring

AVN 352	Aviation Seminar (Pass/Fail)	1
AVN 394	Homeland Security	3
AVN 382	Airport Planning	3
MGT 370	Transportation Management	3
AVN 354	Aviation Legislation	3
SOC SCI	Economics/Airport Finance/Air Transportation	3
Total		**16**

4TH YEAR

Fall

AVN 381	Airport Finance	3
AVN 451	Cooperative Work Study	3
AVN 455	Aviation Research	6
AVN 481	Concepts of Air Transportation Utilization	3
Total		**15**

Spring

AVN 452	Airline Operations	3
AVN 454	Senior Practicum/Capstone	3
AVN 480	Airport Design	3
MGT 400	Organizational Behavior	3
Total		**12**

Total Degree Hours **120**

Curriculum Outline – Bachelor of Science, Flight Education

1ST YEAR

Fall

APS 101	Weather & Climate	3
AVN 151	Aviation Seminar (Pass/Fail)	1
AVN 162	Private Pilot Ground School	3
AVN 163	Private Pilot Lab I	1

AVN 181	Introduction to Airport Systems	3
ENG 101	Written Communication I	3
UNV 101	University Life	1
Total		**15**

Spring

AVN 152	Aviation Seminar (Pass/Fail)	1
AVN 153	Aviation Foundations I	3
AVN 170	ATC Foundations	3
AVN 164	Private Pilot Lab II	1
HIS 106	World Civilizations II	3
ENG 102	Written Communication II	3
HEA/PE	HEA/PE	2
Total		**16**

2ND YEAR

Fall

AVN 201	FLight Safety	3
AVN 265	Instrument Ground School	3
AVN 267	Instrument Rating Lab I	2
COM 103	Oral Communication	3
ECO 201	Humanities I	3
Total		**14**

Spring

AVN 268	Instrument Rating Lab II	2
AVN 254	Crew Resource Management	3
AVN 290	Intro to Unmanned Aircraft Systems	3
MAT/SCI	MAT 117 or higher	3
SOC SCI	Economics/ Airport Finance/Air Transportation	3
Total		**14**

3RD YEAR

Fall

AVN 361	Commercial Pilot Ground School	3
AVN 363	Commercial Pilot Lab I	2
AVN 353	Aviation Management	3
HUM 201	Humanities I	3
PHY 201	Introductory Physics	3
PHY 215	Introductory Physics Lab	1
Total		**15**

Spring

AVN 364	Commercial Pilot Lab II	2
AVN 356	Air Transportation	3
HUM/HIS	HUM/ ART/ THE/ MUS/ REL/ HIS/	3
MGT 215	Principles of Statistical Analysis	3
AVN 354	Aviation Legislation	3
Total		**14**

4TH YEAR

Fall

AVN 461	Certified Flight Instructor Ground School	3
AVN 465	Certified Flight Instructor Lab I	1
AVN 451	Cooperative Work Study	3
AVN 455	Aviation Research	3
AVN 463	Advanced Aircraft Systems	3
MGT 301	Business Org. and Management	3
Total		**16**

Spring

AVN 466	Certified Flight Instructor Lab II	1
AVN 452	Airline Operations	3
AVN 454	Senior Practicum/Capstone	3
AVN 464	Advanced Aerodynamics and Aircraft Performance	3
AVN 394	Homeland Security	3
MGT 400	Organizational Behavior	3
Total		**16**

Total Degree Hours **120**

Engineering Programs at Hampton University

Hampton University provides three Bachelor of Science academic programs in Chemical Engineering, Computer Engineering, and Electrical Engineering. The three programs are split into two departments: Chemical Engineering, and Electrical and Computer Engineering.

All students enrolled in an engineering program should consult with their advisors and become familiar with the Student Advisory Handbook with respect to the requirements of academic performance.

Accreditation

The Bachelor of Science in Chemical Engineering, Computer Engineering, and Electrical Engineering curricula are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700 and are four- year programs for students with adequate preparation.

Facilities and Opportunities Available to Students

In the Olin Engineering Building, there are over ten different laboratory spaces. These rooms contain a variety of equipment for undergraduate instruction including two computer labs with latest simulation and modeling software such as MATLAB, POLYMATH, and ASPEN Engineering Suite. Electrical and Computer Engineering equipment include analog and digital multimeters, oscilloscopes, power and frequency meters, universal motor generator sets, dc network analyzer antenna demonstration sets, transmission line instrument and microwave training instrument sets, to name a few. Students will have access to Arduino kits starting in their first semester as incoming Freshmen. Chemical engineering students have access to distillation and absorption columns, drying kilns, fluid flow racks, bioreactor, fluidized beds, etc. A "Tinker Room" with soldering and circuit design equipment, 3-D printers, and other maker-space equipment is available to all students after proper safety and use training.

A majority of the engineering faculty members work on funded research projects and paid student researcher opportunities are available to selected students. These students will have access to faculty research labs in areas such as biomaterials for bone replacement, photonics, bioprocessing, etc.

Professional Clubs

Engineering students may join the student chapter of clubs listed below.

AIChE Student Club of Hampton University

The American Institute of Chemical Engineers (AIChE) provides an opportunity for chemical engineering students to meet with other chemical engineering majors and obtain information about local and national professional developments. It also provides opportu-

nities for students to attend scientific and technical meetings. The club organizes social and professional activities throughout the academic year. Student membership in AIChE is open to all chemical engineering majors.

IEEE Student Branch of Hampton University

The Institute of Electrical and Electronics Engineers (IEEE) was founded in 1884 with Alexander Graham Bell and Thomas Edison among its charter members. The IEEE Student Branch at Hampton University offers opportunities for electrical engineering students to familiarize themselves with various aspects of the Electrical Engineering profession. By joining the society, students can subscribe to various technical journals and also keep abreast of engineering advancements and technology. The student branch sponsors and organizes seminars for the electrical engineering students, including field trips. Student members are also eligible to attend monthly meetings of the local Hampton Roads section. This offers students a chance to meet other IEEE members attending local colleges and universities within the region.

NSBE Student Branch of Hampton University

The National Society of Black Engineers (NSBE) is dedicated to developing programs that will increase the participation of African- Americans and other ethnic minorities in the field of engineering and engineering technology. It also helps to advance the role of ethnic minority engineers in professional careers in industry. NSBE members try to give back to their community the expertise gained from their technical disciplines. The Hampton University chapter of the NSBE sponsors many programs that reach out to the community and its members. NSBE activities include programs such as the Pre-College Initiative, study sessions, a seminar series with corporate speakers and participation at various conferences. Membership in NSBE is open to all engineering students. Associate membership is also available to science majors.

Society of Women Engineers

The Society of Women Engineers (SWE) is a not-for-profit educational and service organization that empowers women to succeed and advance in the field of engineering, and to be recognized for their life-changing contributions as engineers and leaders. SWE is the driving force that establishes engineering as a highly desirable career for women through an exciting array of training and development programs, networking opportunities, scholarships, and outreach and advocacy activities. It empowers women to achieve full potential in careers as engineers and leaders, expand the image of the engineering and technology professions as a positive force in improving the quality of life, and demonstrate the value of diversity and inclusion. SWE members work to show females of all ages that engineers work to solve real world problems and improve the quality of life for all. By demonstrating the impact that engineering can have on lives around the globe, engineering will be seen as a top choice of education and profession for women.

Department of Chemical Engineering

Chemical engineering applies chemical and physical processes to convert raw and crude materials to more valuable products and/or useful forms of energy. The role of a chemical engineer is to conceptualize, design, develop, control and optimize those processes so that they are economically and conservationally efficient and ecologically acceptable.

Chemical engineering activities range from research on the development of new products and processes, to designing and operating plants and equipment for the production of these products, to marketing and management. Because of their broad scientific and engineering base, chemical engineers work in very diverse areas such as production of industrial chemicals; production of energy from various fuels; designing of artificial organs; making therapeutic proteins; cleaning up of hazardous, toxic, and nuclear wastes; and manufacturing of computer chips, space materials, pharmaceuticals and other high technology specialty materials.

Mission of the Chemical Engineering Program The mission of the Chemical Engineering Program is to provide a comprehensive and competitive chemical engineering education following the guidelines provided by the Accreditation Board for Engineering and Technology (ABET). The program is committed to serving as a conduit to a profession that has traditionally not been highly accessible to minorities.

The Chemical Engineering program is formally structured into a four-year curriculum leading to the Bachelor of Science degree. The first year is spent in a common core program required of all engineering majors. The final three years are spent fulfilling chemical engineering accreditation requirements as outlined by the Accreditation Board for Engineering and Technology (ABET). This program serves students interested in developing the technical skill sets needed to conceptualize, design, and operate chemical and biochemical processes and in applying these skills to a broad range of areas, such as the environment, manufacturing, biotechnology, and nanotechnology.

Program Objectives

The Chemical Engineering program develops graduates who are effective problem solvers and:

- Demonstrate competencies basic to success in graduate study or function as a professional chemical engineer;
- Demonstrate effective teamwork, leadership, and communication skills;
- Demonstrate the ability to maintain professional competency through lifelong learning;
- Demonstrate knowledge of basic research methodology, and;
- Develop a responsibility towards his or her community and to demonstrate this responsibility through service to the department, the profession, and the public.

Program Outcomes

During the course of their time in the Chemical Engineering Program, all students must:

- Demonstrate the skills and knowledge to design, control, and operate basic physical, chemical, and biological processes for the creation of new material wealth or for the solution of problems, in an economical, efficient, safe, and environmentally and socially acceptable manner;

- Analyze the operation of basic physical and chemical processes;
- Solve problems related to the operation of basic chemical and physical processes, including the interpretation of results;
- Use basic concepts related to process control of simple chemical and physical processes in designing and operating them;
- Demonstrate competencies related to the design of simple chemical and biochemical processes, development of process alternatives, and selection of the best alternative which is economical, efficient, and environmentally and socially acceptable;
- Demonstrate comprehension of the importance of professional ethics, social consciousness, environmental preservation, product quality, and safety;
- Demonstrate a level of oral communication skills required for technical presentations;
- Demonstrate a level of written communication skills required in writing technical reports and articles;
- Demonstrate skills in finding appropriate information and data to solve problems;
- Work effectively in groups to accomplish assigned tasks and objectives.

Chemical Engineering Degree Requirements

A major in chemical engineering consists of 35 credit hours of chemical engineering courses, 11 credit hours of advanced chemistry courses, and 6 credit hours of technical electives. Additional courses in oral communication, humanities, and social sciences, totaling 15 credit hours, are used to satisfy general education requirements. Technical electives may be 500-level chemical engineering courses or 400 (or higher)-level courses in any other sciences, mathematics, or engineering program. In special cases, and as part of a planned effort to form a concentration in a specific area, a 300-level science, mathematics, or engineering course may be accepted as a technical elective upon the recommendation of the student's advisor and the approval of the department chairperson. Advanced chemistry courses must be 400 or higher level courses but to form a concentration in a specific area such as biochemistry 300-level courses can be accepted upon the recommendation of the student's advisor and the approval of the department chairperson. Students must achieve a minimum grade of "C" in all CME, EGR, ELN, CHE, MAT and PHY courses. Prerequisites and corequisites for each course are clearly outlined in this catalog. Adherence to these will be strictly enforced by the department chair and the faculty advisors monitoring the registration process.

Curriculum Outline - Chemical Engineering

Freshman Year	**Semester**	**1st**	**2nd**
MAT 151-152 Calculus I-II		4	4
CHE 201-202 General Chemistry I-II		4	4
HEA 200 Health Education		2	-
COM 103 Oral Communications		-	3
ENG 101-102 Written Communications I-II		3	3
EGR 101 Introduction to Engineering		2	-
EGR 102 Intro. Structured Programming		-	3
UNV 101 Individual & Life		1	-
Total		**16**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
CME 201 Chemical Engineering Calc I		4	-
CHE 301-302 Organic Chemistry I-II		4	4
MAT 260 Differential Equations		3	-
PHY 203-204 Introduction to Physics I-II		3	3
PHY 215-216 Introduction to Physics Lab I-II		1	1
EGR 208 Engineering Analysis I		-	3
CME 303 Transport Phenomena I		-	3
Total		**15**	**14**

Junior Year	**Semester**	**1st**	**2nd**
EGR 307 Engineering Analysis II		3	-
CME 307 Chemical Engineering. Thermodynamics		4	-
CME 304 Transport Phenomena II		3	-
EGR 315 Engineering Economy*		3	-
EGR 226 Basic Electrical Engineering		3	-
CME 308 Chemical Reaction Engineering		-	3
CME 306 Separation Operations		-	3
CHE Elective Advanced Chemistry		-	3
HIS 106 World Civilization II		-	3
BIO 101 Nature of Life		-	3
Total		**16**	**15**

Senior Year	**Semester**	**1st**	**2nd**
CME 407-408 Chemical Process Design I-II		3	3
CME 411-412 Chemical Engineering Lab I-II		2	2
Elective–Technical Elective		3	3
HUM 201 Humanities and Arts		3	-
EGR 204 Engineering Ethics and Safety		-	3
CME 405 Process Control		3	-
CME 409 Data Analysis & Design Exp		1	-
CME 420 Chemical Engineering Seminar		-	1
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

**EGR 315 is a substitute for economics class ECO 201/202*

Department of Electrical and Computer Engineering

Students who earn a Bachelor of Science degree in Electrical Engineering or Computer Engineering will be involved in a variety of electrical, electronic and computer problems in the course of their careers. To ensure the necessary breath of knowledge, the electrical and computer engineering curricula include basic (core) engineering courses and courses in networks and electronic circuits. Additionally, a variety of technical electives are offered to allow students to obtain a broad preparation in other areas such as microprocessors, advanced engineering measurement techniques, digital control systems, manufacturing, computer science, laser systems and antennas/propagation.

The professional activities of electrical and computer engineers directly affect the lives of most of the world's population every day. Electrical engineers are responsible for the design and development of radio and television transmitters and receivers, many of our appliances, telephone networks (wired and wireless), switching systems, and electric power generation and distribution. Computer

engineers are responsible for the design and development of much of the computer hardware and software, computer networks, and computer-based systems that we depend on each day. Within the broad scope of these systems, electrical and computer engineers are concerned with a challenging and diverse array of design and development problems.

Electrical and computer engineers design micro and nano-scale semiconductor integrated circuits that contain many thousands of miniature devices. They design systems for automatically controlling mechanical devices and a variety of processes. Also, electrical engineers are responsible for the design of satellite communication links as well as patient monitoring systems for hospitals. The continuing development of the microprocessor has expanded opportunities for electrical and computer engineers by incorporating smart electronics into the design of familiar products such as automobiles; consumer and office products; entertainment systems; and a vast variety of test and measurement instruments and machine tools.

All students enrolled in Electrical Engineering should consult with their advisors and become familiar with the Student Advisory Handbook with respect to the requirements of academic performance. In order to ensure that the best possible education is being provided to the students, the School of Engineering and Technology and the Program in Electrical Engineering have in place a comprehensive assessment process. Students are required to participate in the application and implementation of the assessment instruments.

Electrical Engineering Program

Mission of the Electrical Engineering Program The mission of the Electrical Engineering program is to provide a state-of-the-art, academically enriched environment for students such that they will acquire the knowledge necessary for entry-level positions as professional engineers and/or for graduate school. Along with a technical education, our graduates are prepared to cultivate a capacity for creative and dynamic problem solving, and to foster a desire to contribute to the culture and society in which they live. The Electrical Engineering program educates problem solvers with a high level of technological competency and social responsibility. Furthermore, all students will have developed the skills and acquired the basic knowledge necessary to be successful in graduate study or for the entry-level positions as electrical engineers.

Electrical Engineering Program Objectives

The program develops graduates who are prepared for careers as electrical engineers, where they will:

- Demonstrate the skills and knowledge to design, develop, evaluate, and operate basic electrical systems for the solution of problems in an economical, efficient, safe, and environmentally acceptable manner;
- Demonstrate effective teamwork, leadership, and communication skills;
- Demonstrate a social and environmental awareness and understanding that will enable them to fulfill their responsibilities as productive citizens in the general society abiding by professional ethics.
- Demonstrate preparation for and a commitment to intellectual, creative, and professional growth.

Electrical Engineering Program Outcomes

At the completion of the Electrical Engineering Program, all students will:

- Demonstrate competencies in the application of the science, mathematics and computational methods basic to success as a professional electrical engineer or as a graduate student.
- Demonstrate the ability to solve open-ended problems related to the operation of basic electrical systems and to interpret the results.
- Demonstrate the capability to design electrical systems optimized by customer, cost, safety, or environmental constraints.
- Demonstrate comprehension of the importance of environmental issues.
- Demonstrate a level of oral communication skills required for presenting written technical reports and articles for review.
- Demonstrate skills in finding appropriate technical information and data to solve electrical engineering problems.
- Work effectively in groups to accomplish assigned tasks and objectives related to electrical engineering.
- Demonstrate the ability to identify and solve societal problems in an effective and professional manner.
- Demonstrate an appreciation for the community effects of engineering decisions.
- Demonstrate awareness of the importance to remain professionally competent through self-study and through the pursuit of advanced graduate-level education.

Electrical Engineering Program Requirements

The Bachelor of Science in Electrical Engineering curriculum is a four-year program for students with adequate preparation. A major in electrical engineering consists of forty-three (43) credit hours of required electrical and computer engineering courses. Students must also take twelve (12) credit hours of technical electives, twenty-one (21) credit hours in Mathematics, eight (8) credit hours in Physics, four (4) credit hours of general Chemistry, fourteen (14) credit hours in General Engineering courses, and eighteen (18) credit hours of non-STEM General Education courses for a total of 120 credit hours. Students must achieve a minimum grade of "C" in all ELN, EGR, MAT, PHY, CSC and CHE courses to graduate.

Curriculum Outline - Electrical Engineering

Freshman Year	Semester	1st	2nd
ENG 101-102 Written Communications I-II		3	3
MAT 151-152 Calculus I-II		4	4
ELN 101 Intro to Computing for ECE		3	-
PHY 203-204 Intro. to Physics I-II		3	3
PHY 215-216 Intro. to Physics Lab I-II		1	1
EGR 101 Intro. to Engineering		2	-
EGR 102 Intro. Structured Programming		-	3
HIS 106 World Civilization		-	3

UNV 101 Individual and Life		1	-
Total		**17**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
CHE 201 General Chemistry I		4	-
MAT 260 Diff. Equations		3	-
EGR 213 Digital Electronics		3	-
COM 103 Oral Communications		-	3
MAT 208 Linear Algebra		-	3
MAT 251 Calculus III		-	4
EGR 218 Circuit Analysis I		3	-
EGR 220 ECE Lab I		2	-
ELN 302 Circuit Analysis II		-	3
ELN 302 Circuit Analysis Lab II		-	1
Total		**15**	**14**
Junior Year	**Semester**	**1st**	**2nd**
ELN 303 Engineering Electronics I		3	-
ELN 311 Engineering Electronics Lab. I		1	-
EGR 315 Engineering Economy		3	-
EGR 204 Engineering Ethics and Safety		-	3
MAT 305 Probability & Statistics		3	-
EGR 303 Engineering Materials		-	3
HUM 201 Humanities		-	3
ELN 307 Signals & Systems		3	-
HEA 200 Health Education		2	-
ELN 306 Electromagnetic Waves		-	3
ELN 412 Communication Theory		-	3
ELN 313 ECE Lab II		-	2
Total		**15**	**17**
Senior Year	**Semester**	**1st**	**2nd**
ELN 409-413 Electrical Engineering Design I-II		3	3
ELN Technical Elective		3	3
ELN 408 Intro. to Control Systems		3	-
ELN 411 Energy Conversion		3	-
ELN 435 ECE Lab 3		1	-
ELN Technical Elective		-	3
ELN Technical Elective		-	3
Total		**13**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Technical electives are selected from 300, or higher, number courses in EGR or ELN with department permission.

Computer Engineering Program

Mission of the Computer Engineering Program The mission of the Computer Engineering program is to provide a state-of-the-art, academically enriched environment for students such that they will acquire the knowledge necessary for entry-level positions as professional engineers and/or for graduate school. Along with a technical education, our graduates are prepared to cultivate a capacity for creative and dynamic problem solving, and to foster a desire to contribute to the culture and society in which they live. The Computer Engineering program educates problem solvers with a high level of technological competency and social responsibility. Furthermore, all students will have developed the skills and acquired the basic knowledge necessary to be successful in graduate study or for the entry-level positions as computer engineers.

Computer Engineering Program Objectives

The program develops graduates who are prepared for careers as computer engineers, where they will:

- Demonstrate the skills and knowledge to design, develop, evaluate, and operate basic computer and computer-based systems for the solution of problems in an economical, efficient, safe, and environmentally acceptable manner;
- Demonstrate effective teamwork, leadership, and communication skills;
- Demonstrate a social and environmental awareness and understanding that will enable them to fulfill their responsibilities as productive citizens in the general society abiding by professional ethics.
- Demonstrate preparation for and a commitment to intellectual, creative, and professional growth.

Computer Engineering Program Outcomes

At the completion of the Computer Engineering Program, all students will:

- Demonstrate competencies in the application of the science, mathematics and computational methods basic to success as a professional computer engineer or as a graduate student.
- Demonstrate the ability to solve open-ended problems related to the operation of basic computer and computer-based systems and to interpret the results.
- Demonstrate the capability to design computer systems and networks optimized by customer, cost, safety, or environmental constraints.
- Demonstrate comprehension of the importance of environmental issues.
- Demonstrate a level of oral communication skills required for presenting written technical reports and articles for review.
- Demonstrate skills in finding appropriate technical information and data to solve computer engineering problems.
- Work effectively in groups to accomplish assigned tasks and objectives related to computer engineering.
- Demonstrate the ability to identify and solve societal problems in an effective and professional manner.
- Demonstrate an appreciation for the community effects of engineering decisions.
- Demonstrate awareness of the importance to remain professionally competent through self-study and through the pursuit of advanced graduate-level education.

Computer Engineering Program Requirements

The Bachelor of Science in Computer Engineering curriculum is a four-year program for students with adequate preparation. A major in computer engineering consists of thirty-four (34) credit hours of required electrical and computer engineering courses. Students must also take fifteen (15) credit hours of technical electives, twenty (20) credit hours in Mathematics, seven (7) credit hours of

Computer Programming (from the Department of Computer Science, six credit hours of programming are included in major course offering), eight (8) credit hours in Physics, four (4) credit hours of general Chemistry, eleven (11) credit hours in General Engineering courses, and twenty-one (21) credit hours in non-STEM General Education courses for a total of 120 credit hours. Students must achieve a minimum grade of "C" in all ELN, EGR, MAT, PHY, CSC and CHE courses to graduate.

The Department of Electrical and Computer Engineering offers two tracks for Computer Engineering majors: Traditional and Cyber Physical Systems Security.

Curriculum Outline – Computer Engineering – Traditional

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communications I-II		3	3
MAT 151-152 Calculus I-II		4	4
ELN 101 Intro to Computing for ECE		3	-
PHY 203-204 Intro. to Physics I-II		3	3
PHY 215-216 Intro. to Physics Lab I-II		1	1
EGR 101 Intro. to Engineering		2	-
EGR 102 Intro. Structured Programming		-	3
HIS 106 World Civilization		-	3
UNV 101 Individual and Life		1	-
Total		**17**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
CSC 151-152 Computer Programming I-II		4	3
MAT 260 Diff. Equations		3	-
EGR 213 Digital Electronics		3	-
ELN 215 Computer Architecture I		-	3
MAT 208 Linear Algebra		-	3
200-Level Technical Elective		-	3
EGR 218 Circuit Analysis I		3	-
EGR 220 ECE Lab I		2	-
ELN 302 Circuit Analysis II		-	3
ELN 302 Circuit Analysis Lab II		-	1
Total		**15**	**16**

Junior Year	**Semester**	**1st**	**2nd**
ELN 303 Engineering Electronics I		3	-
ELN 311 Engineering Electronics Lab. I		1	-
EGR 315 Engineering Economy		3	-
EGR 204 Engineering Ethics and Safety		-	3
MAT 305 Probability & Statistics		3	-
ELN 403 Digital Electronics Design		3	-
MAT 315 Discrete Structures		-	3
ELN 307 Signals & Systems		3	-
HEA 200 Health Education		-	2
ELN 515 Microcontrollers & Embedded Sys		-	3
CHE 201 General Chemistry I		-	4
Total		**16**	**15**

Senior Year	**Semester**	**1st**	**2nd**
ELN 482-483 Electrical Engineering Design I-II		3	3
ELN Technical Elective		3	3
HUM 201 Humanities I		3	-
COM 103 Oral Communications		3	-
ELN Technical Elective		-	3
Social Science Elective		-	3
Total		**12**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Curriculum Outline – Computer Engineering – Cyber

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communications I-II		3	3
MAT 151-152 Calculus I-II		4	4
ELN 101 Intro to Computing for ECE		3	-
PHY 203-204 Intro. to Physics I-II		3	3
PHY 215-216 Intro. to Physics Lab I-II		1	1
EGR 101 Intro. to Engineering		2	-
EGR 102 Intro. Structured Programming		-	3
HIS 106 World Civilization		-	3
UNV 101 Individual and Life		1	-
Total		**17**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
CSC 151-152 Computer Programming I-II		4	3
MAT 260 Diff. Equations		3	-
EGR 213 Digital Electronics		3	-
ELN 215 Computer Architecture I		-	3
MAT 208 Linear Algebra		-	3
200-Level Technical Elective		-	3
EGR 218 Circuit Analysis I		3	-
EGR 220 ECE Lab I		2	-
ELN 302 Circuit Analysis II		-	3
ELN 302 Circuit Analysis Lab II		-	1
Total		**15**	**16**

Junior Year	**Semester**	**1st**	**2nd**
ELN 303 Engineering Electronics I		3	-
ELN 311 Engineering Electronics Lab. I		1	-
ELN 360 Intro to Cyber Physical Sys Security		3	-
ELN 362 Computer Network Security		-	3
MAT 305 Probability & Statistics		3	-
ELN 403 Digital Electronics Design		3	-
MAT 315 Discrete Structures		-	3
ELN 307 Signals & Systems		3	-
HEA 200 Health Education		-	2
ELN 515 Microcontrollers & Embedded Sys		-	3
CHE 201 General Chemistry I		-	4
Total		**16**	**15**

Senior Year	**Semester**	**1st**	**2nd**
ELN 482-483 Electrical Engineering Design I-II		3	3
EGR 315 Engineering Economy		3	-
HUM 201 Humanities I		-	3
COM 103 Oral Communications		3	-
ELN 460 Embedded System Security		3	-
ELN 462 Quantum Communication Systems		-	3
EGR 204 Engineering Ethics and Safety		-	3
Total		**12**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Scripps Howard School of Journalism and Communications

The Scripps Howard School of Journalism and Communications at Hampton University (HU) offers a Bachelor of Arts degree program in Journalism and Strategic Communication with a minor or area of emphasis outside the program. Scripps Howard School at Hampton University is one of the nation's finest colleges for training individuals to communicate and produce news and information across all content platforms - from video and audio, to websites, social networks and other digital outlets.

To strengthen and expand the school's sequences, Hampton University President Dr. William R. Harvey designated the former Department of Mass Media Arts in fall 2002 as a program of distinction. The goal of this designation has become the charge of the Scripps Howard School of Journalism and Communications — to become one of the nation's top journalism and communications programs. To support that goal, the Scripps Howard Foundation committed $10 million over 10 years. The grants endow two professorships, bring visiting professionals to campus, fund scholarships and provide state-of-the-art equipment for students' use in coursework. The Scripps Howard Foundation also funded the $5 million building that houses the school.

The school's curriculum has been redesigned to meet the demands of the rapidly evolving multimedia industry, changing technology, an increasingly diverse society and Hampton University's mission to educate students to become leaders in their professions. Under the new curriculum emphasizing digital innovation, students are required to complete a 48-credit-hour journalism and communications core. This core is designed to assure that students have a strong conceptual foundation.

Students are required to complete a program of study in one of two majors — journalism or strategic communication. At least seventy-two (72) credit hours outside of the chosen major must be completed. Scripps Howard requires a minimum of 120 credit hours to graduate.

Additionally, all students are required to complete a university-approved minor of at least 18 hours or an 18-hour area of emphasis outside the School of Journalism and Communications. The school's faculty believes that journalism and communications students are best served by attaining a complementary area of expertise.

Throughout the curriculum, students learn to gather information, write, edit and to use the technology appropriate to their major to create content for multiple platforms for dissemination to various audiences. The curriculum emphasizes strong writing skills, which are a foundation for success in any of the majors.

Many of the school's courses are intensive, hands-on laboratory courses in which students practice the skills they will need in their professions. For example, in Strategic Communication courses, students learn to conduct research, prepare informational and advertising collateral, write news releases, serve as spokespersons, and develop strategic public relations and advertising campaigns for actual clients. In the Journalism courses, students learn to capture video and audio, write, and edit in order to report important and relevant stories to assure that many voices are heard in the public dialogue. Students are taught to cover news stories accurately, fairly and quickly on deadline. The aim is to prepare students to compete strongly in the job market and to succeed in their fields.

The school has extensive partnerships with national and local news and communications organizations to give students opportunities for internships and future careers

Students at the Scripps Howard School are immersed in journalism and communications both in and out of the classroom. To complement their curriculum, students can participate in the following experience-enhancing organizations:

WHOV-TV
Campus television station programmed and operated by students, which features newscasts, sports features and entertainment programs.

Kappa Tau Alpha
The national honor society for journalism and communications majors in the top 10 percent of their class.

The National Association of Black Journalists
An organization of journalists, students and media-related professionals that provides quality programs and services to and advocates on behalf of black journalists worldwide.

The Public Relations Student Society of America
An organization that seeks to advance the public relations profession by nurturing generations of future professionals.

BRAND757
A student-run organization, providing an opportunity for students to run a public relations firm.

Accreditation

The school maintains accreditation from the Southern Association of Colleges and Schools (SACS) and from The Accrediting Council on Education in Journalism and Mass Communications (ACEJMC). ACEJMC is located online at www.ACEJMC.org and at 201 Bishop Hall, P.O. Box 1848, University, MS 38677.

ACEJMC is a distinguished group of journalism educators and professionals that has developed a list of 12 core values and competencies the group believes students should have instilled by the time they become graduates from an accredited journalism and communications program. They are listed below:

1. Understand and apply the principles and laws of freedom of speech and press for the country in which the institution that invites ACEJMC is located, as well as receive instruction in and understand the range of systems of freedom of expression around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances;

2. Demonstrate an understanding of the history and role of professionals and institutions in shaping communications;
3. Demonstrate an understanding of gender, race, ethnicity, sexual orientation and, as appropriate, other forms of diversity in domestic society in relation to mass communications;
4. Demonstrate an understanding of the diversity of peoples and cultures and of the significance and impact of mass communications in a global society;
5. Understand concepts and apply theories in the use and presentation of images and information;
6. Demonstrate an understanding of professional ethical principles and work ethically in pursuit of truth, accuracy, fairness and diversity;
7. Think critically, creatively and independently;
8. Conduct research and evaluate information by methods appropriate to the communications professions in which they work;
9. Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve;
10. Critically evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness;
11. Apply basic numerical and statistical concepts;
12. Apply tools and technologies appropriate for the communications professions in which they work.

It is through these essential student values and competencies that the school prepares students to enter careers in journalism and communications, and to be able to critique and improve the work of media peers and professionals.

Facilities

Located in the heart of Hampton University's picturesque campus, the 34,000-square-foot journalism and communications building houses media labs; seminar rooms; a multimedia lecture hall; a TV studio with digital editing equipment and a mini newsroom; and WHOV-FM 88.1, the campus radio station, which gives students opportunities to develop their broadcasting skills. Recent additions include a business and financial journalism newsroom, featuring one of the few Bloomberg terminals found inside one of the nation's journalism schools, and an augmented and virtual reality lab.

Admissions

To enter the Scripps Howard School of Journalism and Communications, students are required to:

1. Complete 30 credit hours (sophomore classification) of academic credit.
2. Have and maintain a grade-point average of 2.5 or better.
3. Pass JAC 101 Media in a Multicultural Society, JAC 105 Grammar and AP Style and JAC 110 Introduction to Media Writing with a grade of "C" or better.

For transfer students, the school accepts no more than six (6) hours of credit in the major taken at another university.

Graduation Requirements

To graduate from the Scripps Howard School of Journalism and Communications, students must:

1. Have a 2.5 grade-point average in journalism and communications courses.
2. Complete 120 credit hours, of which at least 72 are outside of the school; additionally, majors cannot complete more than six total credit hours in JAC 465 (Internship) and JAC 467 (Practicum).
3. Complete a university-approved minor or an 18-credit-hour area of emphasis outside the School of Journalism and Communications.
4. Complete a school-approved internship at a media/communication organization appropriate to the student's major.
5. Complete a portfolio that demonstrates that 1) the student has mastered the competencies of his or her major and 2) that the student's work reflects a critical and ethical understanding of the profession.

Course Work

All majors are required to complete the following journalism and communications core:

JAC 101 Media in a Multicultural Society
JAC 105 Grammar and AP Style
JAC 110 Introduction to Media Writing
JAC 200 Introduction to Visual Media
JAC210 Reporting and Newswriting Across Platforms

Students finish the curriculum by completing coursework in one of the following two majors:

Journalism

Essential Skills (3 required)

JAC 265 Introduction to Radio/TV Production
JAC 310 Advanced Reporting/Newswriting
JAC 340 Broadcast Newswriting

Advanced Skills (2 required)

JAC 410 Content Editing
JAC 440 News Production

Specialized Skills (Choose 2 of 3)

JAC 330 Social and Multimedia Analytics
JAC 420 Media Research
JAC 453 Media Innovation, Graphics & Virtual Reality

Theory (Choose 1 of 2)

JAC 404 Media Ethics
JAC 405 Media Law

Capstone (1 required)

JAC 495 Senior Capstone - Journalism

Strategic Communication

Essential Skills (3 required)

JAC 220 Principles of Public Relations
JAC 265 Introduction to Radio/TV Production
JAC 320 PR, Campaigns & Media Brand Marketing

Advanced Skills (2 required)

JAC 330 Social and Multimedia Analytics
JAC 410 Content Editing

Specialized Skills (Choose 2 of 3)

JAC 420 Media Research
JAC 430 Advanced Media Analytics
JAC 453 Media Innovation, Graphics & Virtual Reality

Theory (Choose 1 of 2)

JAC 404 Media Ethics
JAC 405 Media Law

Capstone (1 required)

JAC 495 Senior Capstone - Strategic Communication

Each student in these two majors should select two electives from the following courses. (NOTE: If one of these courses is a major required course completed by the student, it cannot be used as an elective.)

Electives (Choose 2)

JAC 220 Principles of Public Relations
JAC 230 Principles of Advertising
JAC 260 Script Writing
JAC 301 Web Design and Production
JAC 305 Visual Communication
JAC 307 Digital Photography and Imaging
JAC 310 Advanced Reporting and Newswriting
JAC 320 PR, Campaigns & Media Brand Marketing
JAC 330 Social and Multimedia Analytics
JAC 340 Broadcast Newswriting
JAC 403 Media Entrepreneurship
JAC 406 Media Management
JAC 407 Pop Culture in Media
JAC 408 Sports Journalism
JAC 412 Feature and Editorial Storytelling
JAC 414 Business Journalism
JAC 415 Photojournalism
JAC 425 Crisis Communication
JAC 427 Event Management
JAC 430 Advanced Media Analytics
JAC 440 News Production
JAC 445 Animation & Motion Graphics
JAC 450 Special Topics
JAC 451 Specialized Skills
JAC 452 International Journalism
JAC 453 Media Innovation, Graphics & Virtual Reality
JAC 454 Civil Rights Era and the Media
JAC 460 Independent Study in Journalism and Communications
JAC 465 Internship in Journalism and Communications
JAC 467 Practicum in Journalism and Communications

General Education Core

Students in the School of Journalism and Communications are required to take at least 72 of their total credit hours outside of the school. To satisfy that core, all of the students in the school must complete the following:

Natural Science

COM 103 (with a grade of C or better)
ENG 101 (with a grade of C or better)
ENG 102 (with a grade of C or better)
HEA 200 or two 1-credit PED activity courses
HIS 106
HUM 201
HUM 202 or **approved** substitution
MAT 110 (or a higher-level math course)
PSY 203
SCI 102 or MES 130
SOC 205
UNV 101

Additional Requirements

In addition, students in the School of Journalism and Communications are required to complete the following:

PHI 210 or **approved** substitution
POL 201
CSC 120 (with a grade of C or better)
ETR 210

And an additional 6 credit hours of liberal arts and science (LAS) electives: These courses should be selected carefully with the help of an academic adviser to assure that the student completes at least 72 credit hours outside of the School of Journalism and Communications.

Minor or Area of Emphasis

The Scripps Howard faculty believes that all of its students will benefit by pursuing additional expertise in one area of study; therefore, all students in the school are required to complete outside of the school either 1) an official minor as outlined by the university or 2) an 18-credit-hour area of emphasis that is designed in consultation with an academic adviser in the School of Journalism and Communications. Students must earn at least a grade of "C" in each course for the minor or area of emphasis.

Minors in the Scripps Howard School of Journalism and Communications

Minors in the Scripps Howard School are exclusively for students who are not pursuing majors in the school.

- All minors are 18 credit hours.
- Students must maintain at least a "C" average (2.0 overall GPA) to remain in the school for the minor.
- Students must earn at least a "C" in all school courses.
- Students must complete JAC 105, JAC 110 and four other JAC courses.

Journalism (18 hours from the following list)

JAC 101 Media in a Multicultural Society
JAC 105 Grammar and AP Style*
JAC 110 Introduction to Media Writing*
JAC 200 Introduction to Visual Media
JAC 210 Reporting and Newswriting
JAC 265 Intro to Radio/TV Production
JAC 310 Advanced Reporting/Newswriting
JAC 330 Social and Multimedia Analytics
JAC 340 Broadcast Newswriting
JAC 404 Media Ethics
JAC 405 Media Law
JAC 410 Content Editing
JAC 440 News Production
JAC 453 Media Innovation, Graphics & Virtual Reality

**Required prerequisites*

Strategic Communication (18 hours from the following list)

JAC 101 Media in a Multicultural Society
JAC 105 Grammar and AP Style*
JAC 110 Introduction to Media Writing*
JAC 200 Introduction to Visual Media
JAC 210 Reporting and Newswriting
JAC 220 Principles of Public Relations
JAC 230 Principles of Advertising
JAC 265 Intro to Radio/TV Production
JAC 301 Web Design and Production
JAC 320 PR, Campaigns & Media Brand Marketing
JAC 330 Social and Multimedia Analytics
JAC 404 Media Ethics
JAC 405 Media Law
JAC 410 Content Editing
JAC 420 Media Research
JAC 430 Advanced Media Analytics
JAC 453 Media Innovation, Graphics & Virtual Reality

**Required prerequisites*

Journalism

We prepare our journalism students to be the next generation of reporters, producers, visual journalists, and editors. They learn the professional skills and concepts needed to pursue careers across multimedia technologies. Receiving a solid grounding in reporting, editing, ethics, news judgment, layout and design, students also become skilled in digital editing of video and audio while becoming solid journalists.

Curriculum Outline – Journalism

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Com I-II		3	3
MAT 110 College Math II or higher		3	-
UNV 101 The Individual and Life		1	-
*Natural Science		3	-
JAC 101 Media in a Multicultural Society		3	-
JAC 105 Grammar & AP Style		3	-
COM 103 Oral Communication		-	3
HEA 200 or two 1-credit PED classes		-	2
SOC 205 Introduction to Sociology		-	3
JAC 110 Introduction to Media Writing		-	3
JAC 200 Visual Media		-	3
TOTAL		**16**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
JAC 210 Reporting & Newswriting		3	-
JAC 265 Introduction to Radio/TV		3	-
Minor/Area of Emphasis course		3	-
HUM 201 Humanities I		3	-
CSC 120 Introduction to Computers		3	-
JAC 340 Broadcast Newswriting		-	3
JAC 440 News Production		-	3
MES 130 Environ. Sci. or SCI 102 Phys. Sci.		-	3
HUM 202 Humanities II or sub		-	3
HIS 106 World Civilizations II		-	3
TOTAL		**15**	**15**

Junior Year	**Semester**	**1st**	**2nd**
JAC 310 Advanced Reporting & Newswriting		3	-
**JAC Specialized Skills		3	3
Minor/Area of Emphasis Course		3	3
POL 201 Introduction to Political Science		3	-
PSY 203 Introduction to Psychology		3	-
JAC 410 Content Editing		-	3
***JAC Elective		-	3
PHI 210 Logic/Scientific Method or sub		-	3
TOTAL		**15**	**15**

Senior Year	**Semester**	**1st**	**2nd**
JAC 404 Media Ethics or JAC 405 Media Law		3	-
JAC 495 Senior Capstone-Journalism		3	-
ETR 210 Introduction to Entrepreneurship		3	-
Minor/Area of Emphasis Course		3	3
Minor/Area of Emphasis course		3	-
***JAC Elective		-	3
Liberal Arts/Science Elective		-	3
Liberal Arts/Science Elective		-	3
TOTAL		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

**Choose ONE of the following: APS 101 Weather and Climate, APS 102 Natural Disasters, APS 105 Elements of Astronomy, APS 106 Astronomy of Stars and Galaxies, BIO 101 Nature of Life, BIO 103 General Biology, CHE 101 General Chemistry, SCI 102 Introduction to Physical Science, SCI 104 Introduction to Physical Science (Lab attached), SCI 203 Introduction to Nanoscience, MES 102 Earth & Ocean Systems, MES 130 Introduction to Environmental Science.*

***Choose TWO of the following: JAC 330 Social and Multimedia Analytics, JAC 420 Media Research, JAC 453 Media Innovation, Graphics & Virtual Reality*

****Choose any TWO from JAC courses listed in the Program of Study not taken and from the following: JAC 220 Principles of Public Relations, JAC 230 Principles of Advertising, JAC 260 Script Writing, JAC 301 Web Design and Production, JAC 305 Visual Communication, JAC 307 Digital Photography and Imaging, JAC 320 PR, Campaigns & Media Brand Marketing, JAC 403 Media Entrepreneurship, JAC 406 Media Management, JAC 407 Pop Culture in Media, JAC 408 Sports Journalism, JAC 412 Feature and Editorial Storytelling, JAC 414 Business Journalism, JAC 415 Photojournalism, JAC 425 Crisis Communication, JAC 427 Event Management, JAC 430 Advanced Media Analytics, JAC 445 Animation & Motion Graphics, JAC 450 Special Topics, JAC 451 Specialized Skills, JAC 452 International Journalism & Communications, JAC 454 Civil Rights Era and the Media, JAC 460 Independent Study in Journalism and Communications. JAC 465 Internship in Journalism and Communications, JAC 467 Practicum in Journalism and Communications.*

Strategic Communication

We prepare our Strategic Communication students for multifaceted careers in public relations, corporate communications and strategic messaging. They are required to develop solid journalistic skills, including reporting, writing and news judgment. They learn to conduct reliable research, to function as professional spokespeople, to develop public relations campaigns on every content platform, to assess analytics, and to build strong corporate and community relationships.

Curriculum Outline - Strategic Communication

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communication I-II		3	3
MAT 110 College Math II or higher		3	-
UNV 101 The Individual and Life		1	-
*Natural Science		3	-
JAC 101 Media in a Multicultural Society		3	-
JAC 105 Grammar & AP Style		3	-
COM 103 Oral Communication		-	3
HEA 200 or two 1-credit PED classes		-	2
SOC 205 Introduction to Sociology		-	3
JAC 110 Introduction to Media Writing		-	3
JAC 200 Visual Media		-	3
TOTAL		**16**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
JAC 220 Principles of Public Relations		3	-
JAC 210 Reporting and Newswriting		3	-
Minor/Area of Emphasis course		3	-
HUM 201 Humanities		3	-
CSC 120 Introduction to Computers		3	-
JAC 320 PR, Campaigns & Media Brand Mkt.		-	3
JAC 265 Introduction to Radio/TV		-	3
MES 130 Environ. Sci. or SCI 102 Physical Sci.		-	3
HUM 202 Humanities II or sub		-	3
HIS 106 World Civilizations II		-	3
TOTAL		**15**	**15**
Junior Year	**Semester**	**1st**	**2nd**
JAC 330 Social and Multimedia Analytics		3	-
**JAC Specialized Skills		3	3
POL 201 Introduction to Political Science		3	-
PSY 203 Introduction to Psychology		3	-
Minor/Area of Emphasis course		3	3
JAC 410 Content Editing		-	3
***JAC Elective		-	3
PHI 210 Logic/Scientific Method or sub		-	3
TOTAL		**15**	**15**
Senior Year	**Semester**	**1st**	**2nd**
JAC 404 Media Ethics or JAC 405 Media Law		3	-
JAC 495 Senior Capstone-Strategic Comm.		3	-
ETR 210 Introduction to Entrepreneurship		3	-
Minor/Area of Emphasis Course		3	3
Minor/Area of Emphasis course		3	-
***JAC Elective		-	3
Liberal Arts/Science Elective		-	3
Liberal Arts/Science Elective		-	3
TOTAL		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

**Choose ONE of the following: APS 101 Weather and Climate, APS 102 Natural Disasters, APS 105 Elements of Astronomy, APS 106 Astronomy of Stars and Galaxies, BIO 101 Nature of Life, BIO 103 General Biology, CHE 101 General Chemistry, SCI 102 Introduction to Physical Science, SCI 104 Introduction to Physical Science (Lab attached), SCI 203 Introduction to Nanoscience, MES 102 Earth & Ocean Systems, MES 130 Introduction to Environmental Science.*

***Choose TWO of the following: JAC 420 Media Research, JAC 430 Advanced Media Analytics, JAC 453 Media Innovation, Graphics and Virtual Reality*

****Choose any TWO from JAC courses listed in the Program of Study not taken and from the following: JAC 230 Principles of Advertising, JAC 260 Script Writing, JAC 301 Web Design and Production, JAC 305 Visual Communication, JAC 307 Digital Photography and Imaging, JAC 310 Advanced Reporting and Newswriting, JAC 340 Broadcast Newswriting, JAC 403 Media Entrepreneurship, JAC 406 Media Management, JAC 407 Pop Culture in Media, JAC 408 Sports Journalism, JAC 412 Feature and Editorial Storytelling, JAC 414 Business Journalism, JAC 415 Photojournalism, JAC 425 Crisis Communication, JAC 427 Event Management, JAC 440 News Production, JAC 445 Animation & Motion Graphics, JAC 450 Special Topics, JAC 451 Specialized Skills, JAC 452 International Journalism and Communications, JAC 454 Civil Rights Era and the Media, JAC 460 Independent Study in Journalism and Communications, JAC 465 Internship in Journalism and Communications, JAC 467 Practicum in Journalism and Communications.*

School of Liberal Arts and Education

The School of Liberal Arts and Education (SLAE) provides Hampton's liberal arts undergirding—the learning foundations for all areas of study. Therefore, all Hampton students take courses within the School of Liberal Arts and Education through the general education core made up of required courses like English Composition, Oral Communication, Humanities, History, Foreign Languages, Sociology and Psychology. The School of Liberal Arts and Education offers degrees in more than 30 academic disciplines, (both undergraduate and graduate) in three divisions: 1) the Division of Arts and Humanities; 2) the Division of Behavioral and Social Sciences and 3) the Division of Education. Also, most of the co-curricular programs (such as the bands, choirs, debate team, theatre group, dance team, etc.) that enhance students' academic experience, are located in the SLAE. Additionally, The University Child Development Center and the Army ROTC Program are a part of the SLAE.

The mission of the School of Liberal Arts and Education is to provide students with the critical knowledge, skills and qualities that will facilitate the development of scholars and "good citizens" who are knowledge producers, innovators and creators of solutions to some of the most pressing societal and global issues. Consistent with the Hampton model - "Education for Life"- our aim is to ensure that our students are not just prepared for the 21st century, but are the preparers of the 21st century and are the architects of what society and the global community at their best can become.

We accomplish our mission by equipping students with essential interdisciplinary skills in the Liberal Arts and Education including the ability to:

1. Think critically, creatively and independently and problem solve;
2. Write, speak and listen effectively;
3. Be cognizant of and sensitive to diversity and understand how cultural, ethnic and political backgrounds shape perspectives and agendas;
4. Exercise independent judgment and ethical decision-making;
5. Understand relationships among different disciplines, ideas or historical trends;
6. Comprehend and engage in research and interpret findings;
7. Pose meaningful questions that advance understanding and knowledge;
8. Cooperate and collaborate with others and work in teams and Prepare professional and effective educators and practitioners.

The School of Liberal Arts and Education is an innovative learning community of diverse faculty and staff working collaboratively to prepare the next generation of leaders, scholars, artists, behavioral and social scientists, educators, lawyers and other professionals. The SLAE provides a student-centered, and intellectually challenging learning environment. This learning community works to generate and disseminate knowledge that improves and enriches the lives of individuals, families, and communities in a global society.

The School also inspires in students qualities emphasized in the humanities and social sciences such as 1) information literacy; 2) flexibility and adaptability; 3) self-confidence, self-understanding and human agency; 4) a hunger and enthusiasm for learning; and 5) a passion to serve and improve the human life condition.

Finally, The SLAE supports and furthers the mission and vision of Hampton University by providing exemplary programs and opportunities that inspire "the promotion of learning, building of character, and preparation of promising students for positions of leadership and service."

School Facilities

The School of Liberal Arts and Education is housed in several buildings on the Hampton University campus. The School's administrative offices (Office of the Dean) are located in Armstrong Hall which also houses the Division of Arts and Humanities including the Department of English and Foreign Languages and the Department of Music and Performing Arts (Music and Theatre Art). In addition, the Pre-Law Program, the Little Theater, Dett Auditorium, the Writing Technology Laboratory and the Music Recording Studio are located in Armstrong Hall. Armstrong-Slater Hall houses the Art gallery and studios and the Army ROTC Program. Martin Luther King Hall houses most of the majors in the Division of Behavioral and Social Sciences including the Department of Social Sciences (History, Political Science, International Studies, Sociology, Cybersecurity and Criminal Justice) and the Department of Psychology. The Department of Counseling, the Liberal Studies Program and the Behavioral Research Center are housed in Phenix Hall and are also within the Division of Behavioral and Social Sciences. Phenix Hall also houses the Department of Education (which is in the Division of Education). The Department of Sports Science and Wellness (Kinesiology, Sport Management and Sports Administration) also in the Division of Education, is housed in Holland Hall. Clark Hall's Wainwright Auditorium and the second floor of the Convocation Center are rehearsal venues for the University Choirs and University Bands, respectively.

Division of Arts and Humanities

The Division of Arts and Humanities includes the following departments and majors: 1) the Department of English & Foreign Languages (with undergraduate English degree concentrations in Arts, Creative Writing, Film Studies, and Secondary Education); and 2) the Department of Music and Performing Arts (with undergraduate degrees in Music Performance, Music Audio Production, Music Recording Technology, Comprehensive Arts, Graphic Design, Theatre Performance, and Theatre Technical). The comprehensive curricula of this division are designed to achieve the following major or undergraduate degree objectives:

1. Develop communication skills enabling each student to read, write, speak, and listen critically and effectively.

2. Develop an understanding of the culture in which students take part and its relationship to the aspirations and development of humankind.
3. Assist students in their understanding and appreciation of various art forms within the context of their own literary, artistic (music and fine arts), historical, and philosophical heritage.
4. Prepare students for competent performance in teaching and related professions, in graduate and professional study, and in other pursuits leading to meaningful creative careers in the various areas taught in the Division.

Department of English and Foreign Language

The Department of English and Foreign Language is charged to develop the ability of entering students to write well in order to pursue whatever course of study they elect and to provide or enhance the acquisition of the second language skills of speaking, listening, reading, and writing for students who choose to take a foreign language or for those with majors that require it. Beyond that, the department offers a wide range of courses for majors and advanced students in literature, composition, creative writing, linguistics, and cultural studies in English as well as language, literature, and cultures in Spanish.

English 101-102, the written communication component of the Hampton University General Education Program, emphasizes various types of experiences intended to enhance individual development in the undergraduate years and beyond. Built into those introductory courses, for instance, are projects that require students to develop library research skills, to broaden their horizons by attending special lectures and programs, and to develop their ability to think analytically and critically.

In the foreign languages, the department offers beginning and intermediate courses French, German and Spanish as well as upper division language and literature courses in Spanish and French. Students have the opportunity to major in English or minor in English and Spanish. English majors may choose between four concentrations—Arts, Creative Writing, Film Studies, and Secondary Education—each lending itself to a number of career options. The Arts concentration is for those who wish to pursue graduate or professional study in the varying fields of English, Law, and Medicine, or for those whose career aspirations are in professional writing (such as Technical Writing), business, library science, theology, government, or non-profit organizations. The Creative Writing concentration is for those interested in writing poetry, fiction, creative nonfiction, or magazine writing. The Film Studies concentration is for those interested in writing for film, television, or other media and for students interested in film criticism or filmmaking. The Secondary Education concentration is for those who aspire to be middle school or high school English teachers. The secondary education major also has an advisor in the Department of Education and is able to participate in a joint BA/MT (Masters of Teaching) program where the fifth year is completed in the College of Education and Human Development. Students may also pursue a minor in English or Cinema Studies.

Students may also pursue Spanish as a minor. The minor is designed to prepare students to compete in the global job market by enabling them to function professionally in the language field.

As part of its commitment to improving writing across the curriculum, the department maintains a writing center that offers tutoring for a full range of writing skills. The center is directed by a member of the English faculty and staffed by trained student tutors and English faculty. In addition to one-on-one assistance, it also sponsors special workshops related to particular needs, interests, and concerns.

Special Activities

In addition to the academic pursuits, the department offers opportunities for students to participate in extracurricular organizations and activities. Students with a 3.2 GPA or higher in English and a 3.0 overall GPA may become members of the Sigma Tau Delta International Honor Society. Alpha Mu Gamma, the National Collegiate Foreign Language Honor Society, is open to students studying any foreign language who have a GPA of least 3.0 and who have demonstrated excellence in foreign languages courses. International students who speak languages other than English may also become members with a 3.0 GPA in their college courses.

The department provides opportunities for all interested students to become involved in the creative process of writing, sharing, and evaluating imaginative literature. Through the Calliope Literary Society, The Hampton Renaissance (the Hampton University literary journal), and creative writing workshops, students have the opportunity to publish their poems, short stories, plays, and essays, and to organize and participate in public readings and performances both on campus and throughout the surrounding community. For students interested in literary study abroad, the department is affiliated with the Advanced Studies in England Program (ASE), located in Bath, England and associated with Oxford University. ASE offers semester and summer programs featuring a variety of courses in British literature, culture, and society, and offers credits which transfer back to Hampton University. Also available are internships as well as employment in the Writing Center.

Admission/Retention Policy

The English Major

English majors must earn a cumulative GPA of at least 2.0 at the end of each academic year and a grade of "C" or better in English 101-102 and all subsequent major courses. Transfer students must have a cumulative GPA of at least 2.0 and at least a grade of "C" in English 101-102 (or its equivalent) to be admitted into the Department.

Writing Research Papers (English 220) serves as the baseline course for assessment in the Department and must be taken the first semester of the junior year. The 400-level capstone course is the primary means of exit assessment, and the culminating project varies based upon the distinct curricula. The project must be defended successfully before a faculty committee as a requirement for graduation. Failure to meet these requirements results in probationary status or dismissal. Students may apply or petition for re-entry to the chairperson.

The English Minor

Students may opt to take a minor in English by completing twenty-one (21) credit hours. Courses that are applied to the minor include two core courses, one course in language/writing, one course in American literatures, one course in English or World literatures, and two English electives. Students must earn a grade of "C" or better in English 101-102 and in all minor requirement courses. Meeting the requirements for the minor should be independent of meeting the major requirements for graduation.

The Cinema Studies Minor

The Cinema Studies minor is designed primarily for students majoring in any discipline who wish to have a working academic acquaintance with the basics of motion pictures in a digital society, while at the same time being free to assemble a particular experience and training in a specialized area most relevant to the student's interests and professional needs. The aim is to allow students to appreciate and understand the cinematic media and their impact as cultural and artistic forces. This minor is also designed to provide essential preparation for students wishing to pursue graduate studies in film at an institution providing a comprehensive degree program.

The minor consists of eighteen (18) credit hours. There are two core courses that provide the student with the universal foundation of cinema history, cinema processes and cinema terminology. The student then completes a minimum of six semester hours in courses related to the theory and technology of film as well as six hours related to actual cinema production in a substantive way. Students must earn a grade of "C" or better in English 101-102 and all minor requirement courses. Meeting the requirements for the minor should be independent of meeting the major requirements for graduation.

The Spanish Minor

Students may opt to take a minor in Spanish by completing eighteen (18) credits. Courses that may be applied to the minor include any two courses at the 200 level and at least nine hours at the 300 level or higher. Study abroad or experiential learning in the target language is highly recommended. Students must earn a grade of "C" or better in all minor requirement courses. Meeting the requirements for the minor should be independent of meeting the major requirements for graduation.

Curriculum Outline – English Arts*

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communication I-II		3	3
HIS 106 World Civilizations II		3	-
HUM 201 Humanities I		3	-
SOC Social Science Elective		3	3
MAT 110 College Math II (or higher		3	-
UNV 101 Freshman Orientation		1	-
PED Physical Education		1	1
COM 103 Oral Communication		-	3
HUM Humanities Elective		-	3
BIO 101 Nature of Life		-	3
Total		**17**	**16**
Sophomore Year	**Semester**	**1st**	**2nd**
ENG 208 Intro to Literary Studies		3	-
ENG Required ENG Elective-Language and Writing		3	-
ENG Required ENG Elective-Literature of the World		3	3
Free Elective		3	6
[1]Foreign Language-Intermediate (202		3	-
ENG 220 Writing Research Papers		-	3
ENG Free ENG Elective		-	3
Total		**15**	**15**
Junior Year	**Semester**	**1st**	**2nd**
ENG 300 Literary Criticism and Theory		3	-
ENG 313/314 African American Literature		3	-
ENG Required ENG Elective-Literature of the Americas		3	
Free Elective		6	3
ENG 325 Great Masters		-	3
ENG Free ENG Elective		-	6
Total		**15**	**15**
Senior Year	**Semester**	**1st**	**2nd**
ENG 322 Shakespeare		3	-
[2]ENG 430 Senior Capstone		3	-
ENG Free ENG Elective		3	6
Free Elective		3	3
ENG 409/410 The Novel		-	3
ENG Required ENG Elective-Language and Writing		-	3
Total		**12**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

**This four-year schedule represents a suggested sequence. Courses may be taken at any time and students should schedule them while keeping in mind any prerequisite requirements.*

[1]The major requires foreign language proficiency through the intermediate level (Foreign Language 202). If the requirement has been met, students should take other courses in its stead. If the student has less than two years of high school foreign language, the student must enroll in Foreign Language 101 and complete the two-year sequence up to and including Foreign Language 202.

[2]The prerequisites must be met before one can enroll in this course.

Curriculum Outline – Creative Writing*

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communication I-II		3	3
HIS 106 World Civilizations II		3	-
HUM 201 Humanities I		3	-
SOC Social Science Elective		3	3
MAT 110 College Math II (or higher		3	-
UNV 101 Freshman Orientation		1	-
PED Physical Education		1	1
COM 103 Oral Communication		-	3
HUM Humanities Elective		-	3
BIO 101 Nature of Life		-	3
Total		**17**	**16**
Sophomore Year	**Semester**	**1st**	**2nd**
ENG 208 Introduction to Literary Studies		3	-
ENG 206 Introduction to Poetry		3	-
ENG Required ENG Elective-Literature of the World		3	3
ENG Required ENG Elective-Language and Writing		3	-
Free Elective		3	3
ENG 207 Introduction to Fiction		-	3
ENG 220 Writing Research Papers		-	3
[1]Foreign Language-Intermediate (202		-	3
Total		**15**	**15**

Junior Year	**Semester**	**1st**	**2nd**
ENG 300 Literary Criticism and Theory		3	-
ENG 313/314 African American Literature.		3	-
ENG Required ENG Elective-Literature of the Americas		3	3
ENG 325 The Great Masters		-	3
ENG Free ENG elective		-	3
Free Elective		6	6
Total		**15**	**15**

Senior Year	**Semester**	**1st**	**2nd**
ENG 401-402 Creative Writer's Workshop I-II		3	3
[2]ENG 430 Senior Capstone		3	-
ENG 322 Shakespeare		3	-
Free Elective		3	3
ENG 409/410 The Novel		-	3
ENG Required ENG Elective-Language and Writing		-	3
ENG Free ENG Elective		-	3
Total		**12**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

**This four-year schedule represents a suggested sequence. Courses may be taken at any time and students should schedule them while keeping in mind any prerequisite requirements.*

[1]The major requires foreign language proficiency through the intermediate level (Foreign Language 202). If the requirement has been met, students should take other courses in its stead. If the student has less than two years of high school foreign language, the student must enroll in Foreign Language 101 and complete the two-year sequence up to and including Foreign Language 202.

[2]The prerequisites must be met before one can enroll in this course.

Curriculum Outline – Film Studies*

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communication I-II		3	3
HIS 106 World Civilizations II		3	-
HUM 201 Humanities I		3	-
SOC Social Science Elective		3	3
MAT 110 College Math II (or higher).		3	-
UNV 101 Freshman Orientation		1	-
PED Physical Education		1	1
COM 103 Oral Communication.		-	3
HUM Humanities Elective		-	3
BIO 101 Nature of Life.		-	3
Total		**17**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
ENG 208 Introduction to Literary Studies		3	-
ENG 214 Introduction to Motion Pictures		3	-
ENG Required ENG Elective-Literature of the World		3	3
ENG Required ENG Elective-Language and Writing		3	-
Free Elective		3	3
ENG 220 Writing Research Papers		-	3
ENG 341 Scriptwriting for Cinema		-	3
[1]Foreign Language-Intermediate (202)		-	3
Total		**15**	**15**

Junior Year	**Semester**	**1st**	**2nd**
ENG 300 Literary Criticism and Theory		3	-
ENG 313/314 African American Literature		3	-
ENG Required ENG Elective-Literature of the Americas		3	3
ENG 425 Introduction to Digital Cinematography		3	-
Free Elective		3	6
ENG 325 The Great Masters		-	3
ENG 423 Film Direction and Editing		-	3
Total		**15**	**15**

Senior Year	**Semester**	**1st**	**2nd**
[2]ENG 430 Senior Capstone		3	-
ENG 421 Introduction to Filmmaking		3	-
ENG 322 Shakespeare		3	-
Free Elective		3	3
ENG 409/410 The Novel		-	3
ENG Required ENG Elective-Language and Writing		-	3
ENG 330 Writing/Producing New Media		-	3
ENG Free ENG Elective		-	3
Total		**12**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

**This four-year schedule represents a suggested sequence. Courses may be taken at any time and students should schedule them while keeping in mind any prerequisite requirements.*

[1]The major requires foreign language proficiency through the intermediate level (Foreign Language 202). If the requirement has been met, students should take other courses in its stead. If the student has less than two years of high school foreign language, the student must enroll in Foreign Language 101 and complete the two-year sequence up to and including Foreign Language 202.

[2]The prerequisites must be met before one can enroll in this course.

Curriculum Outline – English Secondary Education*

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communication I-II		3	3
HIS 106 World Civilizations II		3	-
HUM 201 Humanities I		3	-
SOC Social Science Elective		3	3
MAT 110 College Math II (or higher).		3	-
UNV 101 Freshman Orientation		1	-
PED Physical Education		1	1
COM 103 Oral Communication.		-	3
HUM Humanities Elective		-	3
BIO 101 Nature of Life.		-	3
Total		**17**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
ENG 208 Introduction to Literary Studies		3	-
ENG 214 Introduction to Motion Pictures.		3	-
ENG Required ENG Elective-Literature of the World		3	3
ENG Required ENG Elective-Language and Writing		3	-
Free Elective		3	3
ENG 220 Writing Research Papers		-	3
ENG 341 Scriptwriting for Cinema.		-	3
[1]Foreign Language-Intermediate (202		-	3
Total		**15**	**15**

Sophomore Year	**Semester**	**1st**	**2nd**
ENG 208 Introduction to Literary Studies		3	-
ENG 201 Traditional English Grammar		3	-
ENG 203 English Literature I		3	-
EDU 200 Foundations of Education		3	-
EDU 302 Human Growth and Development		3	-
ENG 220 Writing Research Papers		-	3
ENG 218 Technical Communication		-	3
ENG 204 English Literature II		-	3

[1]Foreign Language-Intermediate (202)	-	3
EDU 300 Curriculum in the Secondary School	-	3
Total	**15**	**15**

Junior Year	**Semester**	**1st**	**2nd**
ENG 215/216 World Literature		3	-
ENG 313/314 African American Literature		3	-
ENG 300 Literary Criticism and Theory		3	-
ENG 311-312 American Literature I-II		3	3
ENG Free ENG Elective		3	3
ENG 325 The Great Masters		-	3
ENG 320 Advanced Writing Theory/Practices		-	3
ENG Required ENG Elective-Education		-	3
Total		**15**	**15**

Senior Year	**Semester**	**1st**	**2nd**
[3]ENG 430 Senior Capstone		3	-
ENG 322 Shakespeare		3	-
ENG Free ENG Elective		3	-
[2]EDUC 517 Classroom and Behavior Management		3	-
[2]EDUC 556 Teaching English in Secondary Schools		3	-
ENG 409/410 The Novel		-	3
[4]ENG Required ENG Elective-Education		-	3
2EDUC 506 Diversity in Education		-	3
[2]EDUC 550 Teaching and Learning w/Technology		-	3
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

**This four-year schedule represents a suggested sequence. Courses may be taken at any time and students should schedule them while keeping in mind any prerequisite requirements.*

[1]The major requires foreign language proficiency through the intermediate level (Foreign Language 202). If the requirement has been met, students should take other courses in its stead. If the student has less than two years of high school foreign language, the student must enroll in Foreign Language 101 and complete the two-year sequence up to and including Foreign Language 202.

[2]Note that EDU 506, 517, 550, 556 are counted toward graduate degree requirements and are not part of the 120 credit hours that count toward the Bachelor of Arts degree in English Arts.

[3]The prerequisites must be met before one can enroll in this course.

[4]This requirement can only be fulfilled by one of the following courses: ENG 202, ENG 209, ENG 213, ENG 303/304.

Minor in English Arts

Course	**Credit**
ENG 208 Introduction to Literary Studies	3
ENG 220 Writing Research Papers	3

Choose One Course from the Following: 3

ENG 201 Grammar
ENG 202 Introduction to Linguistics
ENG 218 Technical Communication
ENG 302 African American English
ENG 320 Advanced Writing Theory & Practices

Choose One Course from the Following 3

ENG 303 Ethnic Literature I
ENG 304 Ethnic Literature II
ENG 311 American Literature I
ENG 312 American Literature II
ENG 313 African-American Literature I
ENG 314 African-American Literature II

Choose One Course from the Following 3

ENG 203 English Literature I
ENG 204 English Literature II
ENG 215 World Literature I
ENG 216 World Literature II
ENG 322 Shakespeare

Two English Electives 6

Total	**21**

**English electives may be taken from among any courses in the department at or above the 200 level for which the student has the appropriate prerequisites. All departmental prerequisite requirements still apply, except by permission of the chair. See course listings in the current catalog for prerequisites*

Minor in Cinema Studies

Required Courses	**Credit**
ENG 414 Introduction to Motion Pictures	3
ENG 341 Script Writing for Cinema	3

Choose Two Courses from the following*: 6

ART 200 Understanding the Arts
ENG 300 Literary Criticism
ENG 313 African-American Literature I
ENG 314 African American Literature II
ENG 399 Topics in Literature
ENG 422 Film Criticism
MUS 201 Music of African-Americans
MUS 204 Survey of Music History and Literature
SOC 410 African American Popular Culture
SPA 305 Hispanic Literature in English Translation
THE 301 Costuming and Make-up
THE 403 Scene Design
THE 404 Costume Design for Theatre and Dance

Choose Two Courses from the following 6

ART 315 Introductory Painting
ART 330 Graphic Design I
ART 350 Photography I
ART 351 Photography II
ART 501 Special Project in Art
ART 502 Special Project in Art
ENG 400 Independent Study
ENG 401 Creative Writer's Workshop I
ENG 402 Creative Writer's Workshop II
ENT 210 Introduction to Entrepreneurship
ENT 410 Legal Issues for Entrepreneurs
MRT/MET 225 Introduction to Audio Recording
THE 201 Stagecraft I
THE 233 Acting I
THE 252 Playwriting I
THE 305 Directing I
THE 319 Improvisational Workshop
THE 355 Technical Theatre Workshop I
THE 356 Technical Theatre Workshop II

Total	**18**

**These two courses should be logically connected given the student's aims. All departmental prerequisite requirements still apply, except by permission of the instructor.*

Department of Music & Performing Arts

The Department of Music and Performing Arts is a viable and innovative center of learning in the School of Liberal Arts and Education. With commitment to serve students from diverse cultural backgrounds, programs are offered which develop their talents and skills for the competitive work environment they wish to enter whether in performance, education, production or technology. Our students are provided an excellent environment which stimulates creative excellence, develops high technological skills, provides a strong theoretical foundation and fosters a keen sense of business. In addition, programs in the Department of Music and Performing Arts prepare students for graduate study.

Our diverse and highly skilled faculty continue to be productive in their areas of expertise while nurturing our students who benefit from their instruction, experiences in various fields and mentoring. The areas of study available to students are Music which include programs are fully accredited by the National Association of Schools of Music since 1972, and Theatre, which has an impressive tradition of preparing students for the performance and technical aspects of theatre.

The Music Area

The Music area programs in the Department of Music and Performing Arts are fully accredited by the National Association of Schools of Music, in which the University has held membership since 1972. Four programs in Music are offered: a Bachelor of Arts in Music (Performance), a Bachelor of Science in Music Recording Technology, a Bachelor of Science in Music (Audio Production), and a Bachelor of Arts in Music (Pre-Certification). Note that this program leads to the Master in Teaching degree program. The music programs are designed to equip students with general education, professional education, special education, technical skills, and performance skills necessary for graduate study in music, teaching K-12, and the professional music field.

Admissions

The student who wishes to major in music is required to take a diagnostic music theory examination. An audition is required for all emphases except Audio Production. It is designed to show the performance ability of the prospective student on his or her chosen major performance instrument including the voice.

All students are encouraged to seek an early audition prior to enrollment, particularly those living in close radius of the campus. For students located at greater distances, an audition CD/DVD or other approved electronic formats should be sent to the Department of Music. Transfer students are required to take an examination for placement in music theory and in major or minor performance.

General Requirements for Music Majors

Performance: Music majors are required to enroll in a music performance class and a major ensemble each semester until their performance requirements are met. In addition, students are required to perform in a minimum of one general recital each semester and pass a jury examination before the faculty at the end of each semester.

1. Each music major is required to take a comprehensive examination (concurrent with the Major Performance 307 course). This examination will determine the type of exit project required for graduation: a basic recital, honors recital, artist recital, audio production project or senior thesis. Those who do not successfully complete this exam must repeat Major Performance 307.
2. Required Attendance: Music majors are required to attend workshops, seminars, and recitals. For RCT 101 Recital Attendance credit, students are required to attend a minimum of twelve (12) on campus musical events per semester for a total of six (6) semesters. (Off-Campus events for credit must be approved prior to attendance).
3. Grade Point Average (GPA): Music Education majors are required to achieve a 2.5 GPA by the junior year in order to continue in the Bachelor of Arts-Master in Teaching program. All music majors are required to pass major courses with a "C" or better grade.
4. Music majors and non-majors who take private lessons will be assessed $35.00 per one hour applied lesson and $17.50 per half-hour lesson each week for the semester. The fee will be assessed on a semester basis. Student use of piano/organ practice facilities is assessed $50.00 per semester.

Class-Related Activities in Music

Students at Hampton University may enroll in Major Ensembles (University Orchestra, Jazz Band, Marching Band, Symphonic Winds, Concert Band, University Choir, and Concert Choir) or other ensembles including Gospel Choir, Vocal Jazz and Madrigals. The music major must limit herself or himself to three ensembles per semester (credit or noncredit).

- **The Marching Band (THE FORCE)**, offered during the Fall semester, is a required Major Ensemble for Instrumental majors. It is open, however, to all students. Positions in the band, in addition to the standard marching band instrumentation, include a flag corps, a dance team, drum majors, and managers. This band is seen on television, at football games, and in parades by millions of spectators. (2) The Symphonic Winds, offered during the Spring semester, performs the standard wind band literature. Instrumental majors are assigned to this Major Ensemble based on the successful completion of an in-person audition, and membership is limited to 45 students. The ensemble performs at national conventions, on spring tours, and at campus programs and concerts. (3) The Concert Band, offered during the Spring semester, is a required Major Ensemble for Instrumental majors. It is open, however, to all students. This band provides Marching Band members the opportunity for continued development on their instrument during the Spring semester. The ensemble performs at annual concerts on campus each year. (4) The Jazz Ensemble, offered during the Fall and Spring semesters, is designed to provide students with experience in performing music in the popular, jazz, and rock idioms. There are opportunities for solo performance, improvisation, performance of student and faculty arrangements and compositions, and selective small ensemble

and combo playing. Public concerts are held throughout the academic year. (5) The Basketball Band, offered during the Fall and Spring semesters, is designed to support both men's and women's basketball teams. It performs during basketball games, conference tournaments, and campus pep rallies. In all instrumental ensembles, every participant, whether enrolled for credit or not, is required to be present at all rehearsals and public appearances. One semester hour of credit each semester per ensemble may be obtained for participation.

- **The University Choir** is a required Major Ensemble for Voice, Piano, and Organ majors. It is the major choral unit for the University. The University Choir provides service to the campus community by providing music for events such as Convocation, Founder's Day, and Commencement. (2) The Concert Choir is a required Major Ensemble for Voice, Piano, and Organ majors. This group is the premiere touring choir for the University. Comprised of no more than 35 singers, the group makes two tours annually. (3) The Gospel Choir is open to all students as are all choral ensembles upon auditions. Membership is limited. The University Choirs provide music for the Sunday worship services at the University Chapel. Membership in all choirs is by audition. One hour of credit may be obtained for participation in any choir.

  The Hampton University Orchestra, offered during the Fall and Spring semesters, is the Major Ensemble for String majors, and other instrument majors upon approval of the Department Chair. It is open, however, to all students. Students in the University Orchestra receive experience performing a wide range of music. Literature is selected from the Renaissance through contemporary eras. Soloists from within and outside the orchestra personnel perform occasionally with the orchestra. Individual attention and technical development are promoted in this organization. One hour of credit may be obtained for participation in the University Orchestra.

- **The Hampton University Opera Workshop** is geared to rehearsal and performance of operatic repertoire. Special emphasis is placed on the essential components of movement, diction, artistic interpretation, and production. Two hours of credit may be obtained for participation in the Opera Theater. (Instructor permission is required for enrollment.)

Student Organizations

- **Phi Mu Alpha Sinfonia** is a national social fraternity with strong emphasis of service through music and the promotion of the musical arts.

- **Sigma Alpha Iota International Music Fraternity** encourages the nurture and support the Art of Music. Sisters of SAI promote high musical scholarship and character building.

- **Tau Beta Sigma National Honorary Band Sorority** is dedicated to serving college and university bands

The Bachelor of Arts in Music Program (Performance Emphasis)

The Bachelor of Arts in Music program is designed for students who seek to develop outstanding performance skill and musicianship within a liberal arts concentration. Music performance lessons with a professor/professional on the primary instrument are offered, and a variety of complementary activities in music theory, music history, jazz improvisation, and performance ensembles are provided. Students complete this four-year program in preparation for professional music opportunities as well as for future graduate study.

Course Requirements

Required in Major Area (Bachelor of Arts in Music) 56 hrs.

Music 119-120, 121-122, 204, 211-212 w/lab, 305-306, 309-310, 311, 401, 24 credit hours of Major Performance (107-408), 4 credit hours of Minor Performance (PIA or VOI* 203/205, 204/206), 4 credit hours of Major Ensemble (Band/Choir/Orchestra for two years), 2 credit hours of Small Ensemble (ORC 205, one year in a related ensemble), MUE 302, Junior Comprehensive, Piano Proficiency Examination, Junior Recital, Senior Recital (exit requirement). All required major courses are to be taken at Hampton University and passed with a grade of "C" or better. *Voice is required for students with a Piano or Organ emphasis and Piano for all others.

***Electives..... 33 hrs.**

Required in General Education.....38 hrs.
Natural Science .....3 hrs.
Communication 103.....3 hrs.
English 101-102 .....6 hrs.
History 106.....3 hrs.
Humanities 201..... 3 hrs
Humanities Elective.....3 hrs.
Mathematics 110.....3 hrs.
Physical Education.....2 hrs.
Social Sciences (selected from SOC 205,
PSY 203, POL 201 .....6 hrs.
University 101 .....1 hr.

Total Credits 120 hrs.

Major Performance

The Major Performance areas to be studied are categorized as Instrumental, Organ, Piano, Voice, and String. The Major Performance instruments are bassoon, clarinet, euphonium, flute, guitar, horn, oboe, percussion, piano, organ, saxophone, string bass, trombone, trumpet, tuba, viola, violoncello, and voice. All music majors are required to enroll in a music performance class each semester until their performance requirements are met. Instrumental majors (Wind and Percussion) will pursue INT 107-408 (previously ORC 107-408). Organ majors will pursue ORG 107-408. Piano majors will pursue PIA 107-408. Voice majors will pursue VOI 107-408. String majors will pursue STR 107-408. A Junior Recital is required during major performance 308 and a Senior Recital is required during major performance 408.

Minor Performance

The Minor Performance areas are Piano and Voice. Voice is the required Minor Performance area for students with a Piano or Organ emphasis and Piano is the required area for all others. An individualized instruction course PIA (or VOI) 103, 104, 203, 204 can be used to replace the class instruction PIA (or VOI) 105, 106, 205, 206 course, respectively, when available. Students unable to play the piano at the 200 skill level are advised to take PIA 103/104.

Major and Small Ensembles

Ensembles are grouped into Major and Small categories. The Marching Band, Symphonic Winds, Concert Band, University Choir, Concert Choir, and University Orchestra are considered Major Ensembles and have unique course designations. Small Ensembles are grouped under the Orchestra 205 (ORC 205) course designation. Jazz Ensemble 101 and Opera Workshop (OPE 119-120) are categorized as small ensembles. All music majors are required to enroll in an ensemble each semester until the Major and/or Small Ensemble requirements are met.

Performance and Ensemble Summary

Major Instrument or Area
- Major Performance Sequence
- † Minor Performance Sequence

Major and Minor Performance Sequences w/ Major Ensembles

Instrumental (Wind and Percussion):
- INT 107-108, 207-208, 307-308, 407-408
- PIA 103 or 105, 104 or 106, 203 or 205, 204 or 206
- Fall: BAN 101 or ORC 101
- Spring: BAN 111 or 112 or ORC 101

Organ:
- ORG 107-108, 207-208, 307-308, 407-408
- PIA 103 or 105, 104 or 106, 203 or 205, 204 or 206
- Fall: CHO 101 or 102
- Spring: CHO 101 or 102

Piano:
- PIA 107-108, 207-208, 307-308, 407-408
- VOI 103 or 105, 104 or 106, 203 or 205, 204 or 206
- Fall: CHO 101 or 102
- Spring: CHO 101 or 102

String:
- STR 107-108, 207-208, 307-308, 407-408
- PIA 103 or 105, 104 or 106, 203 or 205, 204 or 206
- Fall: ORC 101
- Spring: ORC 101

Voice:
- VOI 107-108, 207-208, 307-308, 407-408
- PIA 103 or 105, 104 or 106, 203 or 205, 204 or 206
- Fall: CHO 101 or 102
- Spring: CHO 101 or 102

*† * Consult your academic advisor for selection of Major Ensemble.*

Curriculum Outline – Bachelor of Arts in Music (Performance Emphasis)

Freshman Year	**Semester**	**1st**	**2nd**
English 101-102		3	3
[1]Major Performance 107-108 (PIA/VOI/ORC		2	2
History 106		3	-
Communication 103		-	3
Natural Science		-	3
Major Ensemble (BAN/CHO/ORC		1	1
Mathematics 110		3	-
Recital Attendance 101, 101		0	0
University 101		1	-
[2]Music 119-120		1	1
[2]Music 121-122		2	2
Physical Education		1	1
Total		**17**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
Humanities 201		3	-
Major Ensemble (BAN/CHO/ORC)		1	1
Major Performance 207-208 (PIA/VOI/ORC		2	2
Music 211-212		2	2
Music 222-233		1	1
Minor Performance PIA/VOI 203/204, 205/206		1	1
Recital Attendance 101, 101		0	0
Music 204		-	2
Social Science		3	3
Elective		2	2
Total		**16**	**15**

Junior Year	**Semester**	**1st**	**2nd**
Elective		3	-
Elective		3	3
Humanities Elective		-	3
Major Performance 307-308 (PIA/VOI/ORC)		2	2
Music 305-306 Music History		3	3
Music 309-310 Jazz Improvisation		2	2
Orchestra 205 (Small Ensemble).		1	1
Recital Attendance 101, 101		0	0
Total		**14**	**14**

Senior Year	**Semester**	**1st**	**2nd**
Elective		3	3
Major Performance 407-408 (PIA/VOI/ORC)		2	2
Music 311		2	-
Music 401		-	2
Music Education 302		2	-
Recital Attendance 101, 101		0	0
Elective		3	3
Elective		3	3
Total		**15**	**13**
TOTAL CREDIT FOR GRADUATION			**120**

[1]Audition required.

[2]Diagnostic music theory test required.

The Bachelor of Arts in Music (Pre-Certification)

The Bachelor of Arts in Music (Pre-Certification) degree is designed for students who desire a career in K-12 Music Education. This program, offered in collaboration between the Department of Music and the Department of Education, leads to the Master in Teaching Degree, a fifth-year program in Education. The University conforms to the accreditation standards of the National Association of Schools of Music, the Division of Teacher Education in the Virginia State Department of Education, and the National Council for Accreditation of Teacher Education. Students who complete this program and the Master in Teaching program position themselves to meet the standards for licensure.

Course Requirements

Required in Major Area (The Bachelor of Arts in Music (Pre-Certification) 72 hrs.

Music 119-120, 121-122, 222-233, 211-212, 204, 305-306, 311, 401, 16 credit hours of Major Performance (107-408), 4 credit hours of Minor Performance (PIA or VOI* 103/105,104/106, 203/205, 204/206), 8 credit hours of Major Ensemble (Band/Choir/ Orchestra) for four years in related ensemble, MUE 201, 202, 203, 204,

205/206, 207, 302, 303/304, 318, 416/417/418, 530, 535, Junior Recital, Junior Comprehensive, Piano Proficiency Examination, Senior Recital (exit requirement). All required major courses are to be taken at Hampton University and passed with a grade of "C" or better. *Voice is required for students with a Piano or Organ emphasis and Piano for all others.

Required in Related Areas ..... 30 hrs.
Education 200, 300, 302, 506, 517, 550, 608, 610, 623, 648

Required in General Education ..... 33 hrs.

Natural Science	3 hrs.
Communication 103	3 hrs.
English 101-102	6 hrs.
History 106	3 hrs.
Humanities 201	3 hrs
Humanities Elective	3 hrs.
Mathematics 110	3 hrs.
Physical Education	2 hrs.
Social Sciences	6 hrs.
University 101	1 hr.
Total Credits	**141 hrs.**

Curriculum Outline – The Bachelor of Arts in Music (Pre-Certification)

Freshman Year	**Semester**	**1st**	**2nd**
English 101-102		3	3
History 106		-	3
Major Ensemble (BAN/CHO/ORC		1	1
[1]Major Performance 107-108		2	2
Minor Performance PIA/VOI 103/105, 104/106		1	1
Mathematics 110		3	-
Music 121-122		2	2
Music 119-120		1	1
Natural Science		-	3
Communication 103		3	-
Physical Education Elective		-	1
Recital Attendance 101, 101		0	0
University 101		1	-
Total		**17**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
Music 204		2	-
Music Education 203		-	1
Education 200		-	3
Major Ensemble (BAN/CHO/ORC		1	1
Major Performance 207-208		2	2
Minor Performance PIA/VOI 203/205, 204/206		1	1
Humanities 201		3	-
Humanities Elective		-	3
Music Education 201		-	1
Music Education 207		3	-
Recital Attendance 101, 101		0	0
Social Science		3	3
Free Elective		3	3
Total		**18**	**18**

Junior Year	**Semester**	**1st**	**2nd**
Education 302, 300		3	3
[5]Education 506		-	3
Major Ensemble (BAN/CHO/ORC		1	1
Major Performance 307-308		2	2
Music 305-306		3	3
Music 211-212		2	2
Music 222-233		1	1
Minor Performance 203/205, 204/206		1	1
Music Education 302		2	-
Recital Attendance 101, 101		0	0
Physical Education Elective		1	-
Total		**16**	**16**

Senior Year	**Semester**	**1st**	**2nd**
[5]Education 517, 550		3	3
Major Ensemble (BAN/CHO/ORC		1	1
Major Performance 407-408		2	2
Music 311		2	-
Music 401		-	2
[4]Music Education 205/206		-	1
[3]Music Education 318, 416/417/418		2	2
[5]Music Education 530, 535		3	3
Recital Attendance 101, 101		0	0
Music Education 202		1	-
Music Education 303/304		-	2
Music Education 204		1	-
Free Elective		-	1
Total		**15**	**17**
Total		**120 Undergraduate**	

Graduate Credits Fifth Year	**Semester**	**1st**	**2nd**
Education 608		3	-
Education 610		3	-
Education 623, 648		3	9
Total		**9**	**9**
Total		**18 Graduate Credits**	
Total Undergraduate Credits:		**120**	
Total Graduate Credits:		**30**	
Total Credits – 5-yr Program:		**150**	

[1]Audition required.

[2]Diagnostic music theory test required.

[3]Instrumental majors will take MUE 417; String Majors will take MUE 418; Piano, Organ, and Voice majors will take MUE 416.

[4]Instrumental, String, and Voice majors will take MUE 205; Organ and Piano majors will take MUE 206.

[5]Note that EDU 506, 517, 550; MUE 535 are counted toward graduate degree requirements and are not part of the 120 credit hours that count toward the Bachelor of Arts degree in Music.

The Bachelor of Science in Music Recording Technology

The Music Recording Technology program is designed for students who desire a career in audio engineering, music recording, audio equipment design, sound reinforcement, broadcasting, audio sales, or studio maintenance. Students completing the four year degree program including one summer earn a Bachelor of Science degree in Music which emphasizes audio recording. The combining of audio recording with music ensures that graduates are well prepared for successful employment in the music and entertainment industries.

Course Requirements

Required in Major Area (Bachelor of Science in Music) 50 hrs.
Music 119-120, 121-122, 204, 211-212, 222, 233, 305-306, 311, 401, Muris Recording Technology 327, 16 credit hours of Major

Performance (107-408), 2 credit hours of Minor Performance (PIA or VOI* 103/105 and PIA or VOI 104/106), 8 credit hours of Major Ensemble, Band/Choir/ Orchestra, (4 years, first two consecutive years must be in related ensembles), Junior Comprehensive, Senior Recital or project (exit requirement). All required major courses are to be taken at Hampton University and passed with a grade of "C" or better. *Voice is required for students with a Piano or Organ emphasis and Piano for all others.

Required in Related Areas	**27 hrs.**
Music Recording Technology 225-226, 325-326, 327, 425-426, 427, 429	

Required in General Education	**33 hrs.**
Communication 103	3 hrs.
English 101-102	6 hrs.
History 106	3 hrs.
Humanities 201	3 hrs
Humanities Elective	3 hrs.
Mathematics 110	3 hrs.
Physical Education	2 hrs.
Natural Science	3 hrs.
Behavioral Science	3 hrs.
Social Science (Sociology 205, plus elective)	3 hrs.
University 101	1 hr.
Electives	6 hrs.
Total Credits	**120 hrs.**

Curriculum Outline – Bachelor of Science in Music Recording Technology

Freshman Year	**Semester**	**1st**	**2nd**
English 101		3	-
English 102		-	3
[2]Music 119-120		1	1
[2]Music 121-122		2	2
HIS 106		3	-
Communication 103		-	3
Natural Science		-	3
[1]Major Performance 107-108 (PIA/VOI/ORC)		2	2
Major Ensemble (BAN/CHO/ORC)		1	1
Mathematics 110		3	-
Recital Attendance 101, 101		0	0
University 101		1	-
Physical Education		1	1
Total		**17**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
Recital Attendance 101, 101		0	0
Minor Performance PIA/VOI 103/105, 104/106		1	1
Music 204		2	-
Social Science		-	3
Major Performance 207-208(PIA/VOI/ORC		2	2
Electives		-	3
Major Ensemble (BAN/CHO/ORC		1	1
Music Recording Tech. 225-226		3	2
Music 211-212		2	2
Music 222-233		1	1
Behavioral Science		3	-
Total		**13**	**15**

Junior Year	**Semester**	**1st**	**2nd**
Major Performance 307-308 (PIA/VOI/ORC		2	2
Elective		3	-
Major Ensemble (BAN/CHO/ORC)		1	1
Music 305-306		3	3
Music Recording Tech. 325- 326		2	2
Music Recording Tech. 327		2	-
Recital Attendance 101, 101		0	0
Humanities Elective		-	3
Humanities 201		3	-
Elective		-	3
Elective		-	1
Total		**16**	**15**

Senior Year	**Semester**	**1st**	**2nd**
Music 311		2	-
Major Performance 407-408 (PIA/VOI/ORC)		2	2
Major Ensemble (BAN/CHO/ORC)		1	1
Music 401		-	2
Music 407-408		3	3
Music Recording Tech. 425- 426		2	2
Music Recording Tech. 427		-	2
Elective		3	-
Recital Attendance 101, 101		0	0
Music Recording Tech. 429		-	4
Elective		2	-
Total		**13**	**16**
TOTAL CREDITS FOR GRADUATION			**120**

[1]Audition required.

[2]Diagnostic music theory test required.

Music Minor Requirements:

Music minors must audition by solo performance on keyboard, voice, strings, or other instruments, and take a diagnostic music theory examination.

Required Curriculum Courses	**Credits**
MUS 119-120 Aural Theory and Keyboard	2 hrs.
MUS 121-122 Written Theory	4 hrs.
MUS 204 Survey of Music History and Literature	2 hrs.
MUE 207 Computer Literacy for Musicians	3 hrs.
[1]Minor Performance 103, 104, 203, 204 (1 hr. ea)	4 hrs.
[2]PIA 103, 104, 203, 204 (1 hr. ea)	4 hrs.
Ensemble (Choir/Band/Orchestra) (4 sem.,1 hr. ea)	4 hrs.
RCT Recital Attendance (4 sem)	0 hrs.
Electives	11 hrs.
Total	**34 hrs.**

Electives	**Credits**
MRT/MET 225 Intro. to Audio Engineering	3 hrs.
MRT/MET 226 Audio Recording II	2 hrs.
MUE 201 Percussion Methods	1 hrs.
MUE 202 String Methods	1 hrs.
MUE 203 Brass	1 hrs.
MUE 204 Woodwinds	1 hrs.
MUE 205 Vocal Methods	1 hrs.
MUE 206 Piano Methods	1 hrs.
*MUE 302 Basic Conducting	2 hrs.
MUE 211 With Lab MUS 222	3 hrs.
MUE 212 With Lab MUS 233	3 hrs.

ORC 205 Small Ensemble ..... 1 hrs.
Applied Music Minor Performance ..... 4 hrs.
*PIA 303, 304, 403, 404
*STR 303, 304, 403, 404
*INT 303, 304, 403, 404
*VOI 303, 304, 403, 404
*ORG 303, 304, 403, 404

**Prerequisites are required*

[1]Minors whose minor performance instrument is voice must take 4 semesters of minor piano.

[2]Minors whose minor performance instrument is piano must take 4 semesters

The Bachelor of Science in Music Program (Audio Production)

The Bachelor of Science in Music degree (Audio Production emphasis) is designed for students who wish to participate in audio production and related sound capture experiences (live recording, studio recording, digital and analog recording, etc.) This music based program does not require students to study a major instrument, however, the program will enhance the proficiency of its major by exposing them to essential music courses as well as courses in recording technology. In addition, students are required to have at least one internship experience.

Required in Related Courses Areas

Music 119-120, 121-122, 204, 211-212, 222, 233, 305-306, Music Recording Technology 327, 6 credit hours of Minor Performance (PIA 103-104, 203/204, 303/304), 6 credit hours of Major Ensemble, Band/Choir/Orchestra, (4 years, first two consecutive years must be in related ensembles), Junior Comprehensive, Senior Recital or project (exit requirement). All required major courses are to be taken at Hampton University and passed with a grade of "C" or better.

Required in Related Areas ..... 26 hrs.
Music 119-120 ..... 2 hrs
Music 121-122 ..... 4 hrs
Music 211-212 ..... 4 hrs
Music 222-233 ..... 2 hrs
Music 305-306 ..... 6 hrs
Music 201 ..... 3 hrs
Music 202 ..... 3 hrs
RCT 101 ..... 0 hrs
MRT 327 ..... 2 hrs

Musical Performance ..... 12 hrs.
Minor Performance 103,104, 203, 204, 303, 304 (Piano) .... 6 hrs
Major Ensemble (BAN/CHO/ORC ..... 6 hrs

Required in General Education ..... 33 hrs.
English 101-102 ..... 6 hrs
History 106 ..... 3 hrs
Mathematics 110 ..... 3 hrs
Physical Education ..... 2 hrs
University 101 ..... 1 hr
Humanities 201/Humanities Elective ..... 6 hrs
Communication 103 ..... 3 hrs
Social Science ..... 3 hrs
Natural Science ..... 3 hrs
Behavioral Science ..... 3 hrs

Required in Related Areas ..... 46 hrs.
Music Recording Technology 225 ..... 3 hrs
Music Recording Technology 226 ..... 2 hrs
Music Recording Technology 325 ..... 2 hrs
Music Recording Technology 326 ..... 2 hrs
Music Recording Technology 429 ..... 4 hrs
Music 407 ..... 3 hrs

Free Electives ..... 33 hrs
Total Credits 120 hrs.

Curriculum Outline – Bachelor of Science in Music (Audio Production Emphasis)

Freshman Year	**Semester**	**1st**	**2nd**
[2]Music 119-120		1	1
[2]Music 121-122		2	2
Minor Performance 103-104 (Piano		1	1
English 101		3	-
Communication 103		-	3
University 101		1	-
English 102		-	3
History 106		3	-
Physical Education		1	1
Natural Science		-	3
Mathematics 110		3	-
Social Science		-	3
Recital Attendance 101, 101		0	0
Major Ensemble (BAN/CHO/ORC)		1	1
Total		**16**	**18**

Sophomore Year	**Semester**	**1st**	2nd
Music 211-212		2	2
Music 222-233		1	1
Minor Performance 203-204 (Piano		1	1
Music Recording Tech. 225-226		3	2
Humanities 201		3	-
Humanities Elective		-	3
Elective		3	-
Behavioral Science		-	3
Elective		3	3
Recital Attendance 101, 101		0	0
Major Ensemble (BAN/CHO/ORC		1	1
Total		**17**	**16**

Junior Year	**Semester**	**1st**	**2nd**
Music Recording Tech. 325-326		2	2
Elective		-	3
MUS 407 Business of Music		3	-
Elective		3	3
Music 305-306		3	3
Recital Attendance 101, 101		0	0
Minor Performance 303-304 (Piano		1	1
Major Ensemble (BAN/CHO/ORC)		1	1
Total		**13**	**13**

Senior Year	**Semester**	**1st**	2nd
Elective		3	3
MUS 201-202		3	3
Elective		3	2
Elective		2	2
Recital Attendance 101, 101		0	0
Music Recording Tech. 327		2	-

Music Recording Tech. 429	-	4
Total	**13**	**14**
TOTAL CREDIT FOR GRADUATION		**120**

[2]Diagnostic music theory test required.

The Theatre Area

The area of Theatre Arts exists to provide the best available preparation for those students who wish to pursue the craft of theatre. The eight-semester (4 years) curriculum of the area of Theatre Arts leads to the Bachelor of Arts degree in either Performance or Technical Theatre. Enrollment in the Theatre Arts area is designed to give students experience and training in theatre management, production, and organization. Those students with interests and abilities in acting, directing, designing, construction, management, and playwriting will find opportunities for expression and growth.

The Theatre program offers students an opportunity for extensive and individualized instruction. Students obtain personalized instruction on state-of-the-art equipment. In the department's production organization, the Hampton Players and Company, students gain experience in every aspect of theatre, from box office operations to set construction. The faculty and students in the theatre program hold memberships in and attend meetings at the Southeastern Theatre Conference, the National Association for Dramatics and Speech Arts, the Virginia Theatre Association, the American Theatre in Higher Education, and the United States Institute for Technical Theatre.

Entrance into Theatre Arts

While the Theatre area does not require a qualifying entrance exam, students' aptitude toward the practice of theatre is measured by their desire to learn and previous experience in the areas of performance and technical theatre.

Exit Requirements

Senior Theatre Arts majors must complete a senior thesis as part of their exit assessment. A senior thesis is defined as a major project in theatre Arts and is undertaken in the course THE 422 Senior Project. The thesis is designed to demonstrate the student's ability to synthesize and apply the knowledge gained during the student's study within the Department. Prerequisites for THE 422 include both participation in a minimum of three Departmental productions, in either a technical or performance capacity, and successfully completing COM 350. The student must complete the senior thesis with a minimum grade of "C" as a qualification toward graduation.

Theatre Area Organizations

Hampton Players and Company

The Hampton Players and Company is a student organization dedicated to serving as a production arm of the main stage season of the Theatre area. In addition, it is dedicated to cultivating the theatre arts talents of its individual members. It not only seeks to serve theatre arts majors, but is committed to the University population and the Hampton community.

Art Club

The Visual Poet's Society Art Club works to raise campus awareness of art. Typical activities include exhibitions and sale of student artworks, participation in homecoming parades and coronations, holiday and end-of-semester parties. The Art Club is open to all interested students.

Debate Team

The Debate Team is a University-sponsored organization which competes on the intercollegiate level within the American Debate Association (ADA). Debate team members debate "the best solution to a problem, the best representation of value, and the most useful definition of facts." The team travels throughout the school year to participate in tournaments with other college teams.

Forensics

The Forensics Team is a University-sponsored organization which competes on the intercollegiate level within the American Forensic Association (AFA). Forensic team members perform various pieces of poetry and prose, along with dramatic interpretations and public speeches on particular topics. The team travels throughout the school year to participate in tournaments with other college teams.

Theatre Minor Requirements:

Freshmen Year	**Semester**	**1st**	**2nd**
THE 201 Stagecraft		3	-
THE 205 Theatre History		3	-
THE 233 Acting I		3	-
THE 305 Directing I		3	-
Sophomore Year	**Semester**	**1st**	**2nd**
THE 364 Modern Drama		-	3
Electives (Selected from the Theatre Offerings		3	-
Acting II, Directing II, Black American Theatre, Costume Design, Practicum, etc.)			
Total			**18**

Curriculum Outline – Theatre Performance Emphasis

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communication I & II		3	3
MAT 110 College Mathematics I		3	-
UNV 101 The Individual and Life		1	-
BIO 101 Nature of Life		3	-
HIS 106 World Civilization II		3	-
PED Physical Education		1	-
COM 103 Oral Communication		-	3
HUM 201 Humanities I		-	3
PSY 203 Intro to Psychology		-	3
Humanities Elective		-	3
Total		**14**	**15**
Sophomore Year	**Semester**	**1st**	**2nd**
THE 119 Performance Workshop		3	-
THE 116-416 Practicum		1	-
COM 121 Voice and Diction		3	-
THE 120 Introduction to Theatre		3	-
THE 201 Stagecraft		3	-
THE 205 Theatre History		3	-
Free Electives		-	6
THE 125 Oral Interpretation		-	3
MUS 200 Intro to Music		-	3
THE 319 Improvisational Workshop		-	3
Total		**16**	**15**
Junior Year	**Semester**	**1st**	
THE/COM Elective		8	3
THE 305-306 Directing I & II		3	3
COM 350 Res. Meth. in Theatre Arts		-	3

THE 233-333 Acting I & II	3	3
THE 116-416 Practicum	1	-
Free Elective	-	3
Total	**16**	**15**

Senior Year	**Semester**	**1st**	**2nd**
THE 252-352 Playwriting I & II		3	3
THE 364 Modern Drama		3	-
THE 422 Senior Project		3	-
THE/COM Elective		3	3
Free Elective		3	3
THE 345 Black American Theatre		-	3
THE 419 Dramatic Theory & Crit.		-	3
Total		**15**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

Curriculum Outline – Theatre Technical Emphasis

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communication I & II		3	3
MAT 110 College Mathematics I		3	-
UNV 101 The Individual and Life		1	-
BIO 101 Nature of Life		3	-
HIS 106 World Civilization II		3	-
COM 103 Oral Communication		-	3
Humanities Elective		-	3
HUM 201 Humanities I		-	3
PSY 203 Intro to Psychology		-	3
Total		**13**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
THE 119 Performance Workshop		3	-
THE 201 Stagecraft I		3	-
THE 120 Intro to Theatre		-	3
THE 116-416 Practicum		1	-
THE 117-417 Practicum		-	1
THE 125 Oral Interpretation		-	3
Free Elective		9	8
Total		**16**	**15**

Junior Year	**Semester**	**1st**	**2nd**
THE 225 Playwriting I		3	-
THE 205 Theatre History		3	-
THE 305 Directing I		3	-
THE 355-356 Tech. Theatre Workshop I & II		3	3
THE 233-333 Acting I & II		3	3
THE 345 Black American Theatre		-	3
COM 350 Res. Meth. in Theatre Arts		-	3
COM 121 Voice and Diction		-	3
THE/COM Elective		-	3
Total		**15**	**18**

Senior Year	**Semester**	**1st**	**2nd**
THE 364 Modern Drama		3	-
THE 402 Scene Design		3	-
THE 422 Senior Project		3	-
THE/COM Elective		6	3
THE 404 Costume Design for Theatre & Dance		-	3
THE 419 Dramatic Theory & Crit.		-	3
Free Elective		-	6
Total		**15**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

Division of Social and Behavioral Sciences

The Division of Social and Behavioral Sciences includes the following Departments and Majors: 1) The Department of Psychology (with undergraduate degree in Psychology and concentrations in Pre-Med and Marriage and Family); 2) The Department of Social Sciences (with an undergraduate degrees in Criminal Justice, Cyber Security, History, International Studies and Sociology), 3) The Liberal Studies Program (with an undergraduate degree in Liberal Studies) 4) The Department of Counseling (with a Master's degree in Counseling and concentrations in School Counseling, Community Mental Health Counseling and Student Affairs/College Student Development Counseling as well as Addictions Counseling; a Doctor of Philosophy Degree in Counselor Education and Supervision; and an Education specialist degree), and 5) the Department of Military Science. The comprehensive curriculum of this division is designed to address the following objectives.

1. To provide students with a well-rounded exposure to the study of society, social and political institutions (national and international), and interactive behaviors among diverse racial, ethnic, and gender groups.
2. To equip students with a theoretical praxis designed to enhance leadership skills and facilitate meaningful community, state and national service.
3. To prepare students with the knowledge and skills necessary to contribute to a diverse and interdependent world.
4. To develop in students an intensive educational foundation that prepares them for entrance into graduate and professional schools.
5. To provide broad, and fundamental training to students in society and psychosocial behaviors so that they are prepared for competitive graduate and professional schools and training in the workforce.
6. To provide sound training in the psychological science for all students at the university in order to enhance their liberal arts education as undergraduate scholars.
7. To develop, disseminate, and apply new knowledge in the psychological sciences.
8. To support and encourage faculty development and excellence in teaching, research/scholarship, practice and community service

Department of Psychology

Bachelor Program in Psychology

The Department of Psychology offers a sequence of study which leads to the Bachelor of Arts degree in Psychology. The Department seeks to achieve three major objectives. First and foremost, it strives to offer broad, fundamental training in the science of psychology to its majors. The department offers a wide array of courses which demonstrate the challenging complexities of psychology, ranging from philosophical/deductive inquiries and laboratory/empirical investigations to field/clinical applications. The second major objective the Department seeks to achieve is to provide the necessary background and experience for successful entry into, and completion of, graduation education. The third major objective is to serve the schools and divisions of the university by enhancing all students' liberal arts education with 1) a sound behavioral science orientation; and 2) an opportunity to fulfill specific vocational or professional accreditation/certification requirements for courses in psychology.

The laboratories and classrooms for the Department of Psychology are housed in Martin Luther King Jr. Hall. It has physical facilities which permit teaching, demonstration, and research in the numerous facets of psychological phenomena.

Marriage and Family Concentration

The Department of Psychology offers a concentration in Marriage and Family Studies to provide students the opportunity: 1) for learn- ing about marriage and family theory, research, and practice; 2) analyzing the current state of marriages and families (with a special focus on African American marriages and families), their causes and consequences; 3) exploring approaches to prevention and intervention that promote healthy marriage, parent-child and other family relationships and quality family living across generations; and developing the attitudes, knowledge and skills that will prepare them for more satisfying and lasting intimate relationships particularly marriage and family relationships.

Pre-Medical Concentration

The Department of Psychology also offers a Pre-Medical track. Students interested in a career in medicine or psychiatry can take advantage of the Pre-medical Concentration. This concentration combines curricula in biology, chemistry and physics with psychology, giving Hampton University psychology majors interested in pursuing medical school a unique advantage.

Departmental Requirements

The Psychology major consists of 48 credit hours in the discipline. All students wishing to major in psychology must first take Introduction to Psychology in order to take any other core psychology classes. The other core curriculum courses include Social Psychology (PSY 205), Methods of Psychology (PSY 208), Introduction of Statistical Methods and Advanced Statistical Methods (PSY 346 and 347), Physiological Psychology (PSY 308), Abnormal Psychology (PSY 300), Theories of Personality (PSY 302), Developmental Psychology (PSY 311), Junior Seminar (PSY 348), and Senior Seminar (PSY 408). At least 15 hours of Psychology Electives are also required. In addition to the required courses, psychology majors are encouraged to enroll in additional classes that strengthen their writing and analytical skills and mathematical background, or to use their free electives to take additional courses (or minor) in departments that complement psychology.

For those students who wish to extend or apply the principles and techniques of psychology learned in the classroom, placement in field study or internship locations are available. However, only nine (9) credits from such courses as, Psychology 409 (Independent Study), Psychology 410 (Field Placement), Psychology 412 (Internship) or other courses identified as applied courses, can be counted as psychology elective credit.

Students seeking to declare psychology as their major must achieve the departmentally established GPA (grade point average) of 2.5. A GPA of 2.0 must be maintained in order to remain a psychology major. Only psychology majors who have passed Junior Seminar with a grade of "C" or better, will be allowed to enroll in Senior Seminar (PSY 408) where students will conduct a research project of their own.

Curriculum Outline – Psychology

Freshman Year	**Semester**	**1st**	**2nd**
Mathematics 110 College Mathematics II or higher		3	-
Oral Communication 103		-	3
University 101 Individual and Life		1	-
Biology 103 (w/lab) General Biology		4	-
Humanities 201		3	-
Humanities Elective		-	3
History 106 (World Civil II)		-	3
English 101-102 Written Communication		3	3
Mathematics 105 or Free Elective		-	3
Free Elective		1	-
Total		**15**	**15**
Sophomore Year	**Semester**	**1st**	**2nd**
Psychology 203 Intro to Psy (For Majors)		-	3
Physical Science (w/lab		-	4
Foreign Language 101/102 or higher		3	3
Psychology 208 Methods of Psy		3	-
Psychology 346/347 Stats I/Stats II		3	3
Mathematics 117 Precalculus I or higher*		3	-
Free Elective		3	-
Health Education 200		-	2
Total		**15**	**15**
Junior Year	**Semester**	**1st**	**2nd**
Psychology 205 Social Psy		-	3
Psychology 308 Physiological Psy		3	-
Psychology 300 Abnormal Psy		3	-
Psychology 302 Theories of Personality		-	3
Psychology 309 Junior Seminar		-	3
Psychology 311 Developmental Psychology		3	-
Social Science Elective		-	3
Sociology 205 Intro to Soc		-	3
Psychology Elective		6	-
Total		**15**	**15**

Senior Year	Semester	1st	2nd
Psychology Elective		6	3
Psychology 408 Senior Seminar		3	-
Physical Education		-	1
Free Elective		6	11
Total		**15**	**15**
Total Credits Needed for Graduation			**120**

Psychology Minor Requirements

The psychology minor requires 21 credit hours, to include: Introduction to Psychology (PSY 203), Methods of Psychology (PSY 208), Statistics I Introduction to Statistical Methods (PSY 346), and Theories of Personality (PSY 302). The remaining nine credits may be chosen from other selected psychology courses; however, only three of these remaining credits may come from any applied (i.e. psychology elective) courses. The course sequence is as follows:

Freshman Year	Semester	1st	2nd
PSY 203		-	3
Sophomore Year	**Semester**	**1st**	**2nd**
PSY 208, 346		3	3
Junior Year	**Semester**	**1st**	**2nd**
PSY Elective		3	3
Senior Year	**Semester**	**1st**	**2nd**
PSY Elective		3	-
PSY 302		-	3

Psychology Department Undergraduate Marriage and Family Track Concentration

The Marriage and Family Track Studies Track Courses:

Four courses (12) credit hours will be required in addition to the core courses required by all psychology majors. These courses should be taken in lieu of psychology and/or free electives.

- Black Child Development (3)
- Psychology of Marriage and Family Systems (3)
- Black Marital Relationships (3)
- Intimate Relationships (3)

Psychology Department Undergraduate Pre-Medical Track Concentration

Freshman Year	Semester	1st	2nd
English 101-102 Written Communication		3	3
Mathematics 117 Pre-Calculus I or higher		3	-
Biology 105 & Biology 106 (w/lab) Biology I & II		4	4
University 101 Individual and Life		1	-
Chemistry 201 & Chemistry 202		4	4
Comm 103 Oral Communication		-	3
Psy 203 Introduction to Psychology		-	3
Health 200 Health Education		2	-
Total		**17**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Physics 201 & Physics 202 (with lab)		4	4
Chemistry 301 & Chemistry 302		4	4
Psychology 208 Methods of Psy		3	-
Psychology 346/347 Stats I/Stats II		3	3
Mathematics 130 Calculus		-	3
Physics Lab 215 & Physics Lab 216		1	1
Physical Education		-	1
Total		**15**	**16**
Junior Year	**Semester**	**1st**	**2nd**
Psychology 308 Physiological Psy		-	3
Psychology 300 Abnormal Psy		3	-
Biology 224 & 225 A&P I & II		4	4
Psychology 309 Junior Seminar		3	-
Chemistry 303 & 304 Biochemistry I & II		4	4
Sociology 205 Intro to Soc		-	3
Total		**14**	**14**
Senior Year	**Semester**	**1st**	**2nd**
History 106 World Civilization		3	-
Foreign Language I & II		3	3
Humanities I		3	-
Humanities elective		-	3
Psychology 302 Theories of Personality		3	-
Psychology 205 Social Psychology		-	3
Psychology 311 Developmental Psychology		-	3
Psychology 408 Senior Seminar		3	-
Total		**15**	**12**
Total Credits Needed for Graduation			**120**

Department of Psychology Student Organizations

Psychology Club

The Psychology Club, the official campus organization for any student interested in Psychology, provides many opportunities for its members through social interaction and community service. Members learn about psychology through panel discussions and guest speakers. The Psychology Club sponsors a variety of activities throughout the school year, including volunteering at local shelters and nursing homes, fundraising for charities, campus speakers, and fun movie nights. Under the supervision of a faculty advisor, Psychology Club functions through the leadership of several student officer positions: President, Vice-President, Treasurer, Secretary,

Mr. Psychology Club, and Miss Psychology Club. Officers must have completed at least one class in psychology.

Psi Chi Honor Society

Psi Chi is the International Honor Society in Psychology. Psi Chi's mission is to encourage, stimulate, and maintain excellence in scholarship, and advance the science of psychology. Membership is open to graduate and undergraduate men and women who are making the study of psychology one of their major interests, and who meet the minimum qualifications. As an international organization, Psi Chi contains over 500,000 members and membership is lifetime. Each year, Psi Chi engages in a number of activities such as community service projects, host seminars, and other undertakings aimed at advancing the organization's mission. The officer positions within Psi Chi at Hampton University are the President, Vice President, Secretary, Treasurer, Historian and Mr. and Miss. Psi Chi.

The eligibility requirements for membership are:

- Completion of 3 semesters of college courses
- Completion of 9 semester hours of psychology courses
- Students must have an overall cumulative GPA that ranks them in the upper 35 percent of their class
- Psychology GPA of 3.0 or higher

Department of Social Sciences

The Department of Social Sciences comprises the following majors and programs: Criminal Justice, Cyber Security, History, International Studies, Political Science, Sociology and the Pre-Law Program.

The Political Science and History programs offer students the opportunity to study politics and history at the local, national, and international levels. The Department of Social Sciences offers a program of study for the Bachelor of Arts degree in Political Science and in History, and collaborates with the Department of English and Foreign Languages to provide a program of study leading to the Bachelor of Arts in History, International Studies and Political Science, as described below.

Political Science is the study of politics: government, law, political behavior, public policy and political philosophy. The Political Science program has a curriculum that is designed primarily to afford broad modern training in the study of political institutions and political behavior for students in the liberal arts and majors planning graduate work. It also affords pre-professional training for law, business, public relations or work in the mass media, domestic and foreign governmental service, teaching, the military, and a variety of active roles in politics.

History serves the university community by providing general education and core curriculum courses in history, geography, philosophy, and religion. The aim of the department is to give students an understanding and appreciation of the evolution and characteristics of world civilizations, cultures and philosophies.

Pre-Law Program

Hampton's Pre-Law Program graduates are prominently represented in the legal profession working in the private and public sectors. A large number of activities have been designed to inform and encourage entry to law school. These activities include enrolling in classes taught by local practicing attorneys; advising by the Pre-Law advisor on the law school application process, the selection of Pre-Law curriculum courses and law schools, and letters of reference; participating in seminars on the preparation of personal statements and law school applications; visiting local law schools; utilizing computer software designed to enhance student performance on the Law School Admissions Test (LSAT); enrolling in law-related internships with legal organizations and government agencies; and meeting with law school admissions officers and recruiters. Hampton University is among the top feeders of African American applicants to law schools accredited by the American Bar Association. Students can major in any discipline, but are encouraged to complete course work in literature, political science, laboratory-based science, mathematics and statistics to meet admission requirements for most law schools.

Pre-Law Advisement

The Pre-Law Program provides advisement and assistance to students seeking careers in law, including information on the Law School Admissions Test (LSAT). Hampton graduates have earned admission to many of the top law schools in the nation.

Pre-Law Track

In order to better prepare Hampton University students for success in the increasingly-competitive law school application process, a Pre-Law Track is available through the Department of Social Sciences. This track is open to all Hampton University students regardless of their majors and consists of 18 credit hours chosen from the following categories:

Required Courses

POL 318	Legal Theory
POL 319	Legal Research
POL 425	Legal Writing
PHI 210	Introduction to Logic and Scientific Method

Recommended Electives

PHI 304	Ethics
POL 302	Constitutional Law and Civil Rights
POL 309	Law and the Judicial Process

Free Electives

ECO 201	Principles of Economics (Macroeconomics)
ECO 202	Principles of Economics (Microeconomics)
*ECO 319	Industrial Organization
*MGT 305	Legal Environment of Business I
*MGT 306	Legal Environment of Business II
JAC 405	Media Law
ENG 399	Law and Literature
ENT 410	Legal Issues for Entrepreneurs
SOC 305	The Criminal Justice System
SOC 401	Sociology of Law

** Prerequisites Required*

Students who pursue the Track will be expected to work closely with his or her academic advisor and the Pre-Law advisor to ensure that all major and Pre-Law Track requirements are met. Once the student has satisfied the track requirements, the Pre-Law advisor will provide the student with written certification of that fact.

Phi Alpha Delta Law Fraternity International (P.A.D.)

Phi Alpha Delta is a Pre-Law Fraternity. To become a member of the Hampton University Chapter, a student must be considered a student in good standing as defined by Hampton's standards. The fundamental objective of P.A.D.'s pre-law program is to assist undergraduates to make an 'informed choice' in selecting law as a career, deciding which law school to attend, and in preparing for the rigors of law school.

Criminal Justice Program

The Bachelor of Science degree in Criminal Justice is designed to provide local, state, national and international leadership on core issues related to crime and its control. The interdisciplinary focus on crime and on examining the social, cultural, political, and economic forces that relate to criminal behavior requires students to become acquainted with the behaviors society decides to control and/or to regulate, the instruments and institutions used to achieve control and/or regulation, and the methods used to altering behavior. Criminal justice courses provide overviews of the legal system and places particular emphasis on types of criminal behavior, the role of sociological theory in examining crime. Criminology courses provide more extensive examinations of the causes and conse-

quences of crime and criminal justice policies including the critical analyses of the concept "society" as the "cause" of crime and the analysis of how institutions respond to criminal behavior and crime.

Criminal Justice and Criminology Minor Requirements:

A six course minor in Criminal Justice and Criminology is available to baccalaureate degree seeking students who are interested in careers in the criminal justice field. Students may select any six Criminal Justice and Criminology classes (18 credits). At the time of graduation, it is the student's responsibility to contact the department from which the students wish to receive the minor. This will ensure that the minor is posted on the transcript.

Criminal Justice Major Requirements:

To satisfy the B.S. requirements, students declaring Criminal Justice and Criminology as a major must have at least a 2.0 cumulative grade point average at Hampton University, and must earn a "C" or above in all courses in the major (required or elective) while matriculating at this university. To receive the Bachelor of Science degree in Criminal Justice and Criminology from Hampton University, majors must complete a total of 120 credit hours. In doing so, students must fulfill the University's core requirements, including the School of Liberal Arts and the departmental requirements. Of these hours, 23 courses (69 credit hours) must be taken in criminal justice coursework. Criminal Justice majors must complete 12 courses (33 credit hours) of general education courses. Students are also required to complete 6 courses (18 credit hours) of elective courses. All criminal justice courses count as social science electives.

Students must complete all core criminal justice requirements, including the internship and the capstone course, in residence at Hampton University. Core course requirements must be taken according to sequence. For example, Statistics must be completed before taking Research Methods and Capstone. Transferred credit counted toward the major in criminal justice and criminology must have a grade of "C" or higher.

Curriculum Outline – Criminal Justice and Criminology

Freshman Year	**Semester**	**1st**	**2nd**
English 101/102 (Written Communication I & II)		3	3
Health 200		-	2
History 106		3	-
Humanities 201		-	3
Humanities Electives		-	3
Mathematics 110 or higher		3	-
Natural Science		3	-
Oral Communication 103		-	3
Psychology 203 (Introduction to Psychology		-	3
Sociology 205 (Introduction to Sociology		3	-
University 101		1	-
Total		**16**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Criminal Justice 332 (Corrections)		3	-
Criminal Justice 305 (Criminal Justice System		-	3
Criminal Justice 340 (Juvenile Justice		-	3
Criminal Justice 306 (Fund of Crim Law and Proc		-	3
Foreign Language 101-102		3	3
Sociology 210 (Social Problems)		3	-
Sociology 250 (Intro to Social Research)		3	-
Sociology 215 (Introduction to Criminology)		3	-
Sociology 315 (Sociology of Deviance		-	3
Total		**15**	**15**
Junior Year	**Semester**	**1st**	**2nd**
Criminal Justice 409 (Criminalistics Cybercrime		3	-
Criminal Justice 407 (Crime Scene Investigation		-	3
Foreign Language 201/202		3	3
Free Elective		-	3
Social Science Elective		3	-
Sociology 346 (Statistics)		3	-
Sociology 351 (History of Sociological Theory		3	-
Sociology 415 (Advanced Criminology		-	3
Sociology Elective		-	3
Total		**15**	**15**
Senior Year	**Semester**	**1st**	**2nd**
Criminal Justice 410 (Issues in Law Enforcement)		3	-
Criminal Justice 499 (Senior Practicum)		-	3
Criminal Justice 417 (Law Enforcement in Security)		-	3
Free Elective		3	3
Sociology 405 (Violence Against Women)		3	-
Social Science Elective		3	-
Sociology 400 (Internship)		3	-
Sociology 403 (Victimology)		-	3
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Cyber Security Program

The Department of Social Sciences, in collaboration with the Department of Computer Science offers a Bachelor of Science (B.S.) degree in Cyber Security. The criminal justice track of the program is housed within the Department of Social Sciences.

The mission of this program is to educate students who will not only be the technical elite in the field of cyber security but also leaders in the cyber security profession in the 21st century. The major goals of the program are: GOAL -1: contribute in the creation of a new workforce in cyber security; GOAL-2: recruit and graduate talented students who will be highly competitive to enter into the emerging market as leaders in cyber workforce, particularly in the public sector; GOAL-3: mobilize within the university a critical mass of expertise and an infrastructure to conduct high quality research and training in cyber security; and GOAL-4: develop and expand innovative outreach programs in cyber security education and training by mobilizing talents and resources both locally and nationally.

Students graduating from the program: 1) will acquire knowledge about cyber security concepts, theories, and strategies relevant to real world case studies; 2) will learn the basics of computer forensics; 3) will have adequate knowledge of internet security; 4) will be competent to detect, assess, and analyze cyber threats and cyber vulnerabilities; 5) will be knowledgeable about issues related to cyber defense, national security and intelligence, cyber intelligence, and the protection of critical infrastructures; 6) will understand the nature and the profile of the cyber criminals and cyber gangs; 7) will comprehend the global reach and expansion of the virtual world and the contemporary politics of the cyber war;

and 8) will have understanding of the national and global network of cybersecurity law and organizations and related issues of ethics and privacy.

In addition to the University's General Education and Foreign Language Requirements, students seeking B.S. in cyber security must meet the curriculum requirements listed below.

Required Courses

Core Courses: 30 Credit Hours from Computer Science and Criminal Justice-Required)

Criminal Justice Core Courses (15 Credits-Required)

SOC 215	Introduction to Criminology
CRJ 305	Criminal Justice System
CRJ 407	Forensics and Crime Scene Investigation
CRJ 408	Criminalistics of Cyber Crime
CRJ 411	Homeland Security

Computer Science Core Courses (15 Credits- Required)

CYS 323	Ethics, Law, and Policy Seminar
CYS 382	Introduction to Cyber Security
CYS 470	Computer Forensics and Incidence Handling
CYS 475	Computer Viruses and Malicious Software
CYS 485	Risk management

Criminal Justice Track (Cyber Security, Homeland, And National Security) (30 Credit Hours Required)

SOC 346	Statistics
CRJ 301	US CyberSecurity Law and Policy Seminar
CRJ 302	Global Cyber Security Law and Policy Seminar
CRJ 303	Cyber Security and Ethics Seminar
CRJ 304	Terrorism and National Security*
CRJ 406	Cyber Intelligence and National Security
CRJ 307	Cyber Espionage, Cyber Terrorism and Hacktivism
CRJ 408	Cyber Crime and Homeland Security
CRJ 414	Cyber Security and Global Cyber War
CRJ 419	Cyber Security in Public Organizations

Curriculum Outline – Cyber Security

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101-102 Written Communication I & II		3	3
UNIV 101 The Individual and Life		1	-
COM 103 Oral Communication		3	-
HUM 201 Humanities 1		3	-
SOC 205 Introduction to Sociology		3	-
BIO 101 General Biology		3	-
MAT 110 College Math II		-	3
HEA 200 Health Education (or 2PE)		-	2
PSY 203 Introduction to Psychology		-	3
HUM Elective		-	3
HIST 106 World Civilization II		-	3
Total		**16**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Foreign Language 101 or higher		3	-
SOC 215 Introduction to Criminology		3	-
CSC 120 Introduction to Computers		3	-
MATH 117 Pre-Calculus		3	-
POL 304 International Politics		3	-
Foreign Language 102 or higher		-	3
POL 302 Constitutional Law/ and Civil Rights		-	3
CRJ 305 Criminal Justice System		-	3
CSC 100 Computer Science		-	3
Criminal Justice Elective		-	3
Total		**15**	**15**
Junior Year	**Semester**	**1st**	**2nd**
SOC 346 Statistics		3	-
Criminal Justice Elective		3	-
CYS 382 Intro Cyber Security		3	-
CRJ 3XX (301) US Cyber Security Law and Policy		3	-
CRJ 3XX (302) Global Cyber Security Law and Policy		3	-
CRJ 3XX (307) Cyber Espionage, Cyber Terrorism and Hacktivism		-	3
CRJ 416 Terrorism and National Security		-	3
CRJ 3XX (304) Cyber Security in Public Organizations		-	3
CYS 323 Ethics, Law and Policy Seminar		-	3
CRJ 3XX (303) Cyber Security and Ethics Seminar		-	3
Total		**15**	**15**
Senior Year	**Semester**	**1st**	**2nd**
CRJ 4XX (414) Cyber Security and Global Cyber War		3	-
CRJ 409 Criminalistics of CyberCrime		3	-
CRJ 411 Homeland Security		3	-
CYS 470 Computer Forensics and Incidence Handling		3	-
CRJ 4XX (419) Cyber Security in Private Organizations		3	-
CRJ 4XX (406) Cyber Intelligence and National Security		-	3
CYS 485 Risk Management		-	3
CYS 475 Computer Viruses and Malicious Software		-	3
CRJ 4XX (408) Cyber Crime and Homeland Security		-	3
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

History Program

The Department of Social Sciences prepares history majors for graduate work and for professional study, including law school, as well as for employment in both the private and public sectors. In addition to its major in history, the department offers, in tandem with Hampton University's Department of Education, a program for those students who want to teach history at the secondary school level. The majors follow the prescribed program for certification by the state of Virginia. The departmental curriculum introduces students to historical methods and gives them an opportunity to conduct primary research. Courses emphasize not only mastery of specific subjects, but also historiography and historical research.

Student organizations include: History Club, The Griot Society and Phi Alpha Theta (History Honor Society).

A "C" is the minimum passing grade for all required History courses, as well as for ENG 101, ENG 102, and COM 103.

History Minor Requirements:

The History Minor requires 21 credit hours as follows:

HIS 201/202:	History of the United States I and II
HIS 218:	Cultural and Political History of Africa
HIS 305 or 306:	History of East Asia before 1850 or History of East Asia after 1850
HIS 308:	Historiography of the African Diaspora
HIS 330:	Nineteenth-Century Europe
HIS 499:	Special Topics

Summary of Course Requirements – History

Required in General Education	33 hrs.
Required in Major Department/Program	75 hrs.
Free Electives	12 hrs.
Total	**120 hrs.**

Curriculum Outline – History

Freshman Year	**Semester**	**1st**	**2nd**
English 101, 102		3	3
Mathematics 110 (or higher)		3	-
University 101		1	-
Biology 101		3	-
History 106, Sociology Sciences elective		3	3
Communications 103		-	3
Health 200		-	2
Psychology 203		-	3
Humanities 201, Humanities 202		3	3
Total		**16**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
History 105, 107		3	3
History 201, 202		3	3
Foreign Language (101, 102		3	3
History 203, Free elective		3	3
History 218, History 220		3	3
Total		**15**	**15**
Junior Year	**Semester**	**1st**	**2nd**
Geography 201, Economics		3	3
History 332, 333		3	3
History 314, 308		3	3
History 361		-	3
History 319/320/330, History 331		3	3
Total		**12**	**15**
Senior Year	**Semester**	**1st**	**2nd**
History 499, 303		3	3
European History Elective, History 390		3	3
American History Elective		3	-
History 425		-	3
History 399		-	3
Free Electives		6	3
Total		**15**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

International Studies Program

The Department of Social Sciences offers a Bachelor of Arts degree program in International Studies. International Studies majors, through coursework, national and international internships, language studies and study abroad, will be prepared to enter careers in international relations, foreign service, government resources, national and international organizations. They also are strong candidates for graduate study in international law, foreign relations, and diplomacy. This program focuses on mastering subject areas that connect the global community: history, geography, politics, socio-cultural, economy, culture and languages. There are two concentrations: 1) International Relations, and 2) Latin American and Caribbean Studies.

The Bachelor of Arts degree program in International Studies is part of Hampton University's continuing efforts to prepare its students with knowledge and skills necessary for participating creatively in the international arena as concerned global citizens, effective interlocutors and informed policy makers. This program will also be offered online. The programs include training in foreign languages as well as interdisciplinary courses in international studies incorporating political science, history, sociology and economics. To satisfy the degree requirements, students declaring International Studies as a major must have at least a 2.0 cumulative grade point average at Hampton University. A "C" is the minimum passing grade for all courses in the required major core, concentration, foreign language concentration, ENG 101, ENG 102, and COM 103.

Summary of Course Requirements – International Studies (International Relations Concentration)

Required in General Education	33 hrs.
Required in Major Department/Program	69 hrs.
Free Electives	18 hrs.
Total	**120 hrs.**

Curriculum Outline – International Studies (International Relations Concentration)

Freshman Year	**Semester**	**1st**	**2nd**
English 101		3	3
Mathematics 110 (or higher		3	-
University 101		1	-
Biology 101		3	-
History 106, Sociology Science elective		3	3
Communications 103		-	3
Health 200		-	2
Psychology 203		-	3
Humanities 201, History 107		3	3
Total		**16**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Foreign Language* (101, 102		3	3
International Relations 220, Philosophy 304		3	3
Geography 201, Political Science 205		3	3
Economics 201		-	3
History 306, History 331		3	3
Total		**12**	**15**
Junior Year	**Semester**	**1st**	**2nd**
Foreign Language* (201, 202		3	3
Political Science 304, 307		3	3
History 310, History 410		3	3
Sociology 324		3	-
International Studies 305		-	3
International Studies Elective, Free Elective		3	3
Total		**15**	**15**
Senior Year			
Foreign Language* (301, 302		3	3
Political Science 405		3	-
Political Science 406		3	-
International Studies 435		-	3
Free Electives		6	9
Total		**15**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

**Selection of Foreign Language should be done in consultation with academic advisor.*

Summary of Course Requirements – International Studies (Latin American and Caribbean Studies Concentration)

Required in General Education	33 hrs.
Required in Major Department/Program	72 hrs.
Free Electives	15 hrs.
Total	**120 hrs.**

Curriculum Outline – International Studies (Latin American and Caribbean Concentration)

Freshman Year	**Semester**	**1st**	**2nd**
English 101, 102		3	3
Mathematics 110 (or higher).		3	-
University 101.		1	-
Biology 101.		3	-
History 106, Sociology Sciences elective.		3	3
Communications 103.		-	3
Health 200		-	2
Psychology 203		-	3
Humanities 201, History 107		3	3
Total		**16**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Foreign Language* (101, 102		3	3
International Relations 220, Philosophy 304		3	3
Geography 201, English 307		3	3
International Studies 302, Economics 201		3	3
History 360, 361		3	3
Total		**15**	**15**
Junior Year	**Semester**	**1st**	**2nd**
Foreign Language* (201, 202		3	3
Political Science 304, 305		3	3
Political Science 310, History 410		3	3
International Studies 321, 310		3	3
Sociology 324		-	3
Senior Year	**Semester**	**1st**	**2nd**
Foreign Language (301, 302		3	3
International Studies 402		3	-
International Studies 435		-	3
Free Electives		6	9
Total		**12**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

**Selection of Foreign Language should be in consultation with academic advisor.*

Sociology Program

The Department of Social Sciences offers the Bachelor of Arts (B.A.) degree in Sociology with an emphasis in Social Inequality and Social Policy. The concentration in Social Inequality focuses on race, class, and gender inequalities and on the processes through which such inequalities become embedded in societies' social structures. Courses (including Race and Ethnic Relations, Sociology of Race and Racism, Sociology of Sex and Gender, and Sociology of Black Women) examine the consequences of economic, political and social stratification. The concentration in social policy focuses on critical analyses of social policy, addressing issues included racial bias, institutionalized discrimination, poverty, crime and community health and aging. Courses (including Sociology of Law, Contemporary Issues in Social Policy, Sociology of Education, Urban Problems in Sociological Perspective, Medical Sociology, and Sociology of Mental Health) examine the role of social policy in dismantling institutional bases of inequality. The Department of Sociology is committed to creating a classroom structure that is conducive to learning, where students can develop their sociological perspective and analytical skills. Achieving this depends on offering high quality and innovative learning opportunities in our courses.

Sociology Minor Requirements:

The undergraduate advisor must approve the student's minor area of study. Students receiving a minor in sociology must complete a total of 24 credit hours and must receive a "C" or higher in all minor courses. Students must complete 15 hours of required coursework and nine hours of other sociology courses. The required courses are (1) SOC 205 Introduction to Sociology; (2) SOC 210 Social Problems; (3) SOC 250 Introduction to Social Research; (4) SOC 302 Social Inequality; and either (5) SOC 351 Classical Social Theory or SOC 352 Contemporary Social Theory.

Sociology Major Requirements:

To satisfy the B.A. requirements, students declaring Sociology as a major must have at least a 2.0 cumulative grade point average at Hampton University, and must earn a "C" or above in all courses in the major (required or elective) while matriculating at this university. To receive the Bachelor of Arts degree in Sociology from Hampton University, majors must complete a total of 120 credit hours. In doing so, students must fulfill the University's core requirements, including the School of Liberal Arts and the departmental requirements. Of these hours, 16 courses (48 credit hours) must be taken in sociology coursework. Sociology majors must complete 12 courses (33 credit hours) of general education courses. Sociology majors must complete 23 courses (69 credit hours) of core sociology coursework. Students are also required to complete 18 hours of elective courses.

Students must complete all core sociology requirements, including Senior Thesis, and Senior Seminar, the capstone course, in residence at Hampton University. Core course requirements must be taken according to sequence. For example, Introduction to Social Research must be completed before taking Statistics and Advanced Research Methods, and all junior level core courses (including History of Sociological Theory, Contemporary Sociological Theory, Statistics and Advanced Research Methods) must be completed before taking Senior Thesis and Senior Seminar. Transferred credit counted toward the major in sociology must have a grade of "C" or higher.

Curriculum Outline – Sociology

Freshman Year	**Semester**	**1st**	**2nd**
Biology 101		3	-
Communication 103		-	3
English 101-102		3	3
Health Education 200		-	2
History 106		-	3
Humanities Electives		-	6
Mathematics 110 or higher		3	-
Psychology 203		-	3
Sociology 205		-	3
University 101		1	1
Total		**16**	**17**

Sophomore Year	Semester	1st	2nd
Foreign Language 101, 102		3	3
Sociology 310 (Sociology of the Family		3	-
Sociology 210 (Social Problem		3	-
Sociology 250 (Intro to Social Research		3	-
Sociology 304 (Race and Ethnic Relation		-	3
Sociology 302 (Social Inequality)		-	3
Sociology 314 (Urban Problems in Soc Pers)		3	-
Sociology 315 (Sociology of Deviance)		-	3
Total		**15**	**12**

Junior Year	Semester	1st	2nd
Liberal Studies Service Learning 300		-	3
Social Science Elective		-	3
Sociology 346 (Statistics)		3	-
Sociology 351/352		3	3
Sociology412 (Curr Issues in Global Inequalities		3	-
Sociology330(Sociology of Education)		3	-
Sociology 400 (Internship)		3	-
Sociology 403 (Victimology)		-	3
Sociology 350 (Advanced Research Methods		-	3
Total		**15**	**15**

Senior Year	Semester	1st	2nd
Free Electives		3	6
Sociology Electives		3	3
Sociology 453 (Senior Thesis)		3	-
Sociology 311 (Critical Race Theory		-	3
Sociology 404 (Social Movements)		3	-
Sociology 454 (Senior Seminar)		-	3
Sociology 414 (Cont Issues in Social Policy		3	-
Total		**15**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

Liberal Studies Major

The major in Liberal Studies allows students the opportunity to customize curriculum based upon individual academic interests. The major comprises common core requirements, liberal arts electives, and additional electives for a total of 120 credit hours.

Curriculum Outline – Liberal Studies Major

Freshman Year	Semester	1st	2nd
English 101-102		3	3
History 106		3	-
Humanities 201		-	3
Humanities Elective		-	3
Mathematics 110 or higher		3	-
Physical Education Activity		1	1
Oral Communication 103		-	3
University 101		1	-
Social Science Elective		3	3
Natural Science		3	-
Total		**17**	**16**

Sophomore Year	Semester	1st	2nd
LST 200 Survey of Liberal Studies		3	-
Liberal Arts Elective		3	3
Liberal Arts Elective		3	3
Liberal Arts Elective		3	3
Liberal Arts Elective		3	3
Liberal Arts Elective		-	3
Total		**15**	**15**

Junior Year	Semester	1st	2nd
THE 119 Performance Workshop		3	-
THE 116-416 Practicum		1	-
THE 201 Stagecraft		3	-
Free Elective		9	9
THE 120 Introduction To Theatre		-	3
THE 117-417 Practicum		-	1
THE 125 Oral Interpretation		-	3
Total		**16**	**16**

Senior Year	Semester	1st	2nd
Additional Elective		3	3
Additional Elective		3	3
Additional Elective		3	3
Additional Elective		3	3
Additional Electives		3	-
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Department of Counseling

The Department of Counseling has a strong focus on experiential learning while providing students with an environment to grow and learn. As the Department has grown, the Department includes a variety of programs that are online and face-to-face. The Department offers a Master of Arts in General Counseling degree consisting of 31 semester hours in both online and face-to-face modalities for individuals who want a general overview of the Counseling profession and to seek positions in Student Affairs or as a Qualified Mental Health Provider in Virginia. These two programs do not lead to a license as a professional counselor. The centerpiece of the Department is the Master of Arts in Counseling degree which has five concentrations, Community Mental Health Counseling, Community Mental Health Counseling with a Pastoral Counseling emphasis, Addictions Counseling, Student Affairs Administration and School Counseling. Of these programs, Community Mental Health, Student Affairs and School Counseling are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and all programs lead to a license as a professional counselor. These programs are conducted face-to-face. The Department offers an Educational Specialist degree in both modalities of online and face-to-face and is developed for the practitioner in the field. Finally, the Department offers a Doctor of Philosophy in Counselor Education and Supervision in an online modality for those who seek to supervise agencies or become a Counselor Educator at the university/college level. Further details on this program is provided in the Graduate College section of this catalog.

Department of Military Science (AROTC)

The Military Science Army Reserve Officer Training Corps provides professional and leadership instruction to students who desire to serve as commissioned officers in the United States Army. The mission of the program is to develop students morally, mentally, academically, and physically in order to commission them upon graduation as officers who are motivated toward a career in the U.S. Army.

Participation is the program is voluntary, and any student who meets the qualifications is eligible to participate. The Military Science curriculum is a 21 credit hour program that is divided into two parts, the basic course and the advanced course. The basic course consists of the freshmen and sophomore year classes and field training. The advanced course consists of the junior year classes and leadership training at Ft Knox, KY. Senior year classes and field training feature a transition and focus to officership.

Students may enter the Army ROTC program at any point up until the summer before their last four semesters at Hampton University. Completing Military Science classes require no service obligation, but for those looking to commit to military service following graduation, they must complete or receive credit for the basic course prior to progressing to the advanced course.

Enrollment in the advance course is dependent upon:
Satisfactory completion of the basic course, or basic camp at FT Knox, KY designed to qualify the student for placement in the advanced course.

1. Successful completion of an Army Physical Fitness test.
2. Execution of appropriate loyalty statements and contractual agreements.
3. Selection by the Professor of Military Science (PMS).
4. Students who have had prior military service, have received credit for junior ROTC participation, or have participated in the Reserve components with at least completion of Basic Training may be granted placement credit subject to PMS approval.

Army ROTC Scholarships

AROTC scholarships are available on a competitive basis to qualified students who are strongly motivated toward a commission in the United States Army. Four year scholarships are awarded each year to high school seniors on the basis of nationwide competition. Also available are 3.5, 3, 2.5, 2 and 1.5 year campus based scholarships. Scholarships pay for full tuition and all mandatory fees, while also providing a book stipend and monthly living stipend. In addition, each semester some outstanding Army ROTC cadets are awarded room scholarships based on performance and academic standing.

Army Military Leadership Minor Requirements The Army Military Leadership minor requires students to complete a minimum of 21 credit hours while achieving a minimum cumulative GPA of 3.0 in all courses taken for the minor. To earn a minor in Army Military Leadership students must complete the following courses: Military Science 101/102, 201/202, 301/302, 401/402 and HIST 222.

Cadet Professional Development Training Additionally, a variety of professional development opportunities are available for cadets desiring an extra challenge. These courses include: Cadet Troop Leader Training (CTLT), Nurse Summer Training Program (NSTP), Cultural Understanding and Language Proficiency (CULP), Basic Airborne Course, Air Assault School, Mountain Warfare School and Northern Warfare Course.

CTLT provides select cadets the opportunity to increase their leadership experience through internships with operational Army units. This on-the-job experience is the most rewarding and relevant leadership training available to cadets in their preparation for commissioning. Cadets are assigned to Second Lieutenant positions and are expected to lead soldiers in the accomplishment of unit missions. They interact with unit commanders, junior officers, noncommissioned officers and soldiers in the "real life" environment of the unit. The objective is to perform the leadership and management tasks necessary to train the platoon's soldiers and maintain equipment. CTLT is conducted at U.S. Army units around the world.

NSTP is available to nurse cadets. It provides opportunities to develop and practice a clinical phase of instruction at Army Medical Command Treatment facilities worldwide.

Cultural Understanding and Language Proficiency (CULP) program allows selected cadets the opportunity to build a solid foundation of culture and language learning competencies. The program consists of internships, language proficiency programs, and opportunities to study and work abroad.

Physical Education: Two years (4 semesters) of Army ROTC/ Military Science classes satisfies the Hampton University Physical Education requirement.

Curriculum Outline – AROTC

Freshman Year	**Semester**	**1st**	**2nd**
Military Science 101		1	-
Military Science 101		-	1
Sophomore Year	**Semester**	**1st**	**2nd**
Military Science 201		2	-
Military Science 202		-	2
HIS 222		-	3
Junior Year	**Semester**	**1st**	**2nd**
Military Science 301		3	-
Military Science 302		-	3
Senior Year	**Semester**	**1st**	**2nd**
Military Science 401		3	-
Military Science 402		-	3

Division of Education

The Division of Education includes the following Departments/ Majors: 1) The Department of Education (with an undergraduate degree in Interdisciplinary Studies with an option leading to endorsement in Elementary Education and the Master in Teaching degrees in Biology, Chemistry, English, Mathematics and PK-12 endorsement in the area of Music, and the Doctor of Philosophy in Educational Management); 2) The Department of Sports Science and Wellness (with undergraduate degrees in Kinesiology and

Sport Management, and a Masters in Sport Administration). The comprehensive curriculum of this division is designed to achieve the following major objectives:

1. To think critically, creatively, independently and collectively in order to problem solve;
2. To communicate effectively;
3. To comprehend and engage in research and interpret findings;
4. To pose meaningful questions that advance understanding and knowledge;
5. To prepare professional and effective educators and practitioners.

The Division is an innovative learning community of diverse faculty and staff working collaboratively to prepare professional educators and practitioners. This learning community works to generate and disseminate knowledge that improves and enriches the lives of individuals, families, and communities in a global society. In providing graduate and undergraduate education, the Division strives to provide a student-centered, and intellectually challenging learning environment. The community of scholars engages in meaningful research, service learning activities, and enlightened leadership across professional fields.

The Division supports and furthers the mission and vision of Hampton University by providing exemplary programs and opportunities that inspire "the promotion of learning, building of character, and preparation of promising students for positions of leadership and service."

Department of Education

The goal of the Department of Education is to equip students with the knowledge, skills, and dispositions that will prepare them to become effective educators. Our future educators are reflective, collaborative teachers and leaders who are dedicated to impacting PK-12 education in an increasingly diverse, technological, and global society and who promote a lifelong commitment to learning. The Department accomplishes this goal by offering high quality programs that provide experiences designed to respect the diversity of children, their families, and communities.

The Department of Education offers an experiential focused curriculum leading to teacher or leader licensure and the following degrees: Bachelor of Arts (B.A.) in Interdisciplinary Studies; Master in Teaching Degrees (M.T.) in Biology, Chemistry, English, Mathematics, and Music; Master's Degree (M.A.) in Educational Leadership and School Counseling; and the Doctor of Philosophy Degree (Ph.D.) in Educational Management. The Master of Arts in Educational Leadership offers PK-12 (Principalship or Central Office) and higher education concentrations, and the Ph.D. in Educational Management offers concentrations in PK-12 education and higher education. All licensure programs meet Virginia State Certification requirements and are state-approved programs. The undergraduate program information is provided in the Department of Education section of this Catalog. The Department of Education collaborates with the Graduate College to offer a Master of Arts degree program in Educational Leadership. The Department of Education collaborates with the Graduate College and Hampton U Online to offer a Doctor of Philosophy degree program in Educational Management. The graduate programs are described in the Graduate College sections of this Catalog.

The Department has been highly successful in placing students in various areas of education. Students who graduate from the Division seeking a teaching endorsement are approved for licensure in Virginia and may qualify for licensure in 45 other states through reciprocity. Approximately 95% of the students seeking an endorsement in education receive jobs within their field. The other 5% of the students continue on to graduate schools.

All students interested in certification are encouraged to begin preparation for the Praxis Core test battery upon entry to the University. The Educational Assessment and Advisement Center, located on the 3rd Floor of Phenix Hall, serves as a great resource to assist students in preparing for assessments required for program entry and exit.

Students must meet all entry, continuation, and exit requirements specified in this document and in departmental and program handbooks. Students should seek advisors in the Division of Education, Department of Education to obtain materials outlining requirements.

The Department of Education is accredited by the Council for the Accreditation of Educator Preparation (CAEP)). Its programs are approved by the Department of Education of the Commonwealth of Virginia.

The honor society in education, Kappa Delta Pi, is open to all qualified undergraduate and graduate students in the education programs.

PROGRAMS

B. A. in Interdisciplinary Studies with Option Leading to Endorsement in Elementary Education Program

Students will complete a professional education program that prepares candidates for successful teaching in PK-6 classroom settings. The program emphasizes candidate knowledge in the core content areas of mathematics, natural science, English, history and social sciences to prepare candidates to deliver instruction in all of these areas. A total of 120 credit hours is required to complete the program. These hours include general education requirements. interdisciplinary major requirements, and professional education requirements that include field experiences and student teaching.

Entry, Continuation and Completion

Entry to the Interdisciplinary Studies program is a process that begins with the declaration of this projected major upon admission to the University. The Office of Freshman Studies will utilize the approved course/program sequence to advise the student on initial courses appropriate to the program through the freshman year. Freshman students will meet with the Department of Education faculty and staff during the first semester for a complete description of the Interdisciplinary Studies with options leading to an endorsement in Elementary Education program requirements, procedures and expectations.

Entry:

During the fall semester of the junior year, candidates apply for admission into the state-approved teacher preparation program. Applicants are to meet the following criteria in order to be officially accepted into the Department of Education's teacher preparation programs.

1. The student must successfully complete 45 hours of coursework.
2. The student must possess an overall GPA of at least 2.5 in all courses.
3. The student must earn a grade of C or better in the following courses:
   ENG 101 and ENG 102
   COM 103
   MAT 110 or higher
4. Assessment Options: Option A: Passing VCLA scores (470) and Praxis Core Math score (150); Option B: Passing Praxis Core scores (Reading-156, Writing-162; Math 150); Option C: Composite SAT scores (1170) with minimum math-560; Reading plus writing-580; Option D: Composite ACT scores (24) with minimum math (22); English plus reading (46).
5. The student must submit the "Why I Want to Teach?" statement.
6. The student must complete the "Dispositions Survey."
7. The student must submit a current unofficial copy of his/her transcript and SAT/ACT scores.
8. The student must submit two sealed letters of reference.
9. The student must submit a copy of the Dyslexia certificate awarded by the Virginia Department of Education.

Each semester the Teacher Education Admissions Committee will evaluate the applications, and the candidates will be notified in writing whether they have been accepted or denied admission into the teacher preparation program. If students are not admitted into the program, they will need to complete any unmet requirements before reapplying to the program.

*Note: All students interested in certification are encouraged to begin preparation for the assessment requirements upon entry upon entry to the University.

Continuation:

Continuation in the Interdisciplinary Studies with option leading to endorsement in Elementary Education program require successful completion of major coursework with a grade of C or better, the maintenance of at least a 2.5 cumulative grade point average, and passing the Praxis II: Specialty Examination, the Virginia Communication and Literacy Assessment (VCLA), the Reading for Virginia Educators (RVE), Dyslexia and Child Abuse Certification. Failure to accomplish these requirements will result in probationary status. The conditions of probationary status and time lines for full reinstatement will be determined by the department chair. No student will be allowed more than two semesters in probationary status without dismissal from the Interdisciplinary Studies program. Students may apply or petition for re-entry upon meeting the requirements for re-entry upon the requirements for continuation.

Upon completion of the continuation requirements, candidates will enter clinical practice and complete the student teaching experience. Candidates will be assessed throughout the student teaching experience and candidates meeting all requirements will exit from clinical practice.

Completion:

Exit requirements for the Interdisciplinary Studies program with option leading to endorsement in Elementary Education are: 1) Maintenance of a 2.5 cumulative grade point average, 2) Successful completion of all State and program required examinations, 3) Successful completion of the Student Teaching Experience, and 4) Successful completion of the ePortfolio.

Candidates who do not achieve passing scores on the State required assessments will not be allowed to student-teach but may earn their degree by choosing the non-certification option.

Option Not Leading to an Endorsement in Elementary Education:

The Interdisciplinary Studies Program Option NOT leading to an Endorsement in Elementary Education provides students with a multidisciplinary curriculum reflecting content areas and professional education coursework. Students choosing not to pursue the endorsement leading to certification in elementary education can take all courses in the IDS program but are prohibited from taking ANY Student Teaching course. Students must substitute coursework for the remaining 12 hours. Please be advised that choosing this concentration will NOT lead to an endorsement in elementary education. In addition, students will NOT GRADUATE from a State Approved teacher preparation program that leads to an endorsement.

Course Requirements-Interdisciplinary Studies – B.A. (Option leading to endorsement in Elementary Education)

Professional Education Requirements **42 hrs.**

Education 200, 301, 302, 312, 315, 438, 441, 402, 406, 417, 431

Interdisciplinary Major Requirements....48 hrs.

Economics 200....3
English 209,303,320....9
Marine and Environmental Science 130....3
History 314, 315....6
Beginning Foreign Language....3
Mathematics 120, 420, 421, 422....12
Political Science 316....3
Science 102,306....6
Sociology 310 3

General Education Requirements **30 hrs.**

Biology 101....3
Communication 103....3
English 101-102....6
Geography 201....3
Health 200....2
History 106....3
Humanities 201-Elective....6
Mathematics 110....3
University 101....1

TOTAL CREDITS FOR GRADUATION **120**

Curriculum Outline-Interdisciplinary Studies – B.A. (Option leading to endorsement in Elementary Education)

Freshman Year	**Semester**	**1st**	**2nd**
Biology 101		3	-
Communications 103		-	3
English 101-102		3	3
Geography 201		3	-
Health Education 200		-	2
History 106 and 108		3	3
Humanities 201		3	-
Mathematics 110		3	-
Education 200		-	3
University 101		1	-
Total		**18**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Economics 200		-	3
Education 312		-	3
English 209, 303		3	3
Beginning Foreign Language		3	-
Marine and Environmental Science 130		-	3
Math 120		3	-
History 314		3	-
Science 102, 306		3	3
Total		**15**	**15**
Junior Year	**Semester**	**1st**	**2nd**
Education 301*, 315		3	3
Education 302, 431		3	3
English 320		3	-
History 315		-	3
Math 420, 421		3	3
Political Science 316		-	3
Sociology 310		3	-
Total		**15**	**15**
Senior Year	**Semester**	**1st**	**2nd**
Education 438		3	-
Education 402*. 441**		3	12
Education 417		3	-
Education 406		3	-
Mathematics 422		3	-
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**121**

**Denotes that a Key Assessment is administered in this course.*

***Denotes that more than one Key Assessment will be administered in this course.*

Master in Teaching (M.T.) Five-Year Program

The Master in Teaching program is an integrated degree program that prepares candidates for successful teaching in 6-12 classroom settings in the content areas of biology, English, mathematics and PK-12 classroom settings in the content area of music. Candidates in the program complete a B.A. or B.S. in biology, chemistry, English, mathematics or music. While completing the undergraduate degree, Hampton University students enroll in 3 introductory education courses. After completion of these courses and the Praxis Core exam, students may apply for admission into the Master in Teaching program. These courses will be counted toward the completion of the M.T. degree. Upon acceptance into the program, content area major candidates are provided an opportunity to begin graduate level coursework. Candidates must apply and be accepted into the Graduate College before their admittance to candidacy for the Master in Teaching degree.

Entry, Continuation, and Completion

Entry:

Applicants are to meet the following criteria in order to be officially accepted into the Master in Teaching program. These admission criteria are required in order for a student to continue taking required Education courses beyond EDU 200, EDU 300, and EDU 302.

1. The student must successfully complete 45 hours of coursework.
2. The student must possess an overall GPA of at least 2.5 in all courses.
3. The student must earn a grade of C or better in the following courses: ENG 101 and ENG 102 COM 103 MAT 110 or higher
4. Assessment Options: Option A: Passing VCLA scores (470) and Praxis Core Math score (150); Option B: Passing Praxis Core scores (Reading-156, Writing-162; Math 150); Option C: Composite SAT scores (1170) with minimum math-560; Reading plus writing-580; Option D: Composite ACT scores (24) with minimum math (22); English plus reading (46).
5. The student must submit the "Why I Want to Teach?" statement.
6. The student must complete the "Dispositions Survey."
7. The student must submit a current unofficial copy of his/her transcript and SAT/ACT scores.
8. The student must submit two sealed reference forms.
9. The student must submit a copy of the Dyslexia certificate awarded by the Virginia Department of Education.

Each semester the Professional Education Admissions Committee will evaluate the applications, and the candidates will be notified in writing whether they have been accepted or denied admission into the teacher preparation program. If students are not admitted into the Program, they will need to complete any unmet requirements before reapplying to the program.

Continuation:

Continuation in the M.T. Program requires successful completion of professional education coursework, the maintenance of at least a 2.5 cumulative grade point average, and passing the Praxis II: Specialty Examination. the Virginia Communication and Literacy Assessment (VCLA), and Dyslexia and Child Abuse Certification. Failure to accomplish these requirements will result in probationary status. The conditions of probationary status and timelines for full reinstatement will be determined by the department chair. No student will be allowed more than two semesters in probationary status without dismissal from the Master in Teaching program. Students may apply or petition for reentry upon meeting the requirements for continuation.

Students admitted to M.T. programs are granted an opportunity to complete 12 hours of graduate level coursework during their

undergraduate studies. These students will be permitted to take graduate 500 level professional education coursework while completing their content major. These courses will be counted toward the completion of the M.T. degree.

During the senior year, students are required to apply for admission to the Graduate College for the graduate level portion of the Master's in Teaching Program. Admission requires:

1. 2.5 cumulative grade point average and 2.5 in the major program and in teacher education.
2. Successful completion of the Graduate Record Examination.
3. Successful completion of all state licensure requirements.
4. Recommendation of the chair of the Department of Education.
5. Achievement of a Bachelor's degree.
6. Two letters of professional recommendation.
7. Personal Statement

Continuation in the program requires acceptance into the Graduate College, maintenance of a 3.0 grade point average in graduate courses, and completion of all other Graduate College requirements. Candidates who do not achieve passing scores on state required assessments will not be allowed to student teach.

Completion:

Upon completion of the continuation requirements, candidates will enter clinical practice and complete the student teaching experience. Candidates will be assessed throughout the student teaching experience. At the end of the student teaching experience, candidates meeting all requirements will exit from clinical practice. Exit requirements for the M.T. are: 1) Maintenance of a 3.0 cumulative grade point average, 2)Successful completion of all State and program required examinations, 3) Successful completion of the Student Teaching Experience, and 4) Successful completion of the ePortfolio.

Curriculum Outline - Biology - B.S./M.T. (Secondary Biology)

Freshman Year	**Semester**	**1st**	**2nd**
Biology 105, 106 (either order)		4	4
Biology 110		1	-
English 101-102		3	3
Chemistry 201-202		4	4
[1]Mathematics 117, 130		3	3
Health 200 or Physical Education Activity		-	2
University 101		1	-
Total		**16**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
Biology 304, 305		4	3
Chemistry 301-302		4	4
Communication 103		3	-
Social Science Electives		3	3
[2]Humanities 201 & approved Humanities elective		3	3
History 106		-	3
Biology 203		-	1
Total		**17**	**17**

Junior Year	**Semester**	**1st**	**2nd**
Biology 210, 220		4	4
Biology 211		-	3
Biology 425		-	1
Education 200		3	-
Education 302-300		3	3
Mathematics 205 or 305 or MES 210 or SOC 346		3	-
Physics 201, 202		4	4
Physics 215, 216		1	1
Total		**18**	***16**

Senior Year	**Semester**	**1st**	**2nd**
[4,5]Biology 408, 505		3	3
Biology 413		1	-
[4]Biology Elective		3	3
[4]Biology Elective		-	3
Marine & Environment Sciences 430		4	-
[6]Education 552, 506		4	3
[6]Education 517, 550		3	3
Total		**18**	***15**

Total Credits 120 Undergraduate/ 12 Graduate Credits

Fifth Year	**Semester**	**1st**	**2nd**
Education 608		3	-
Education 610		3	-
Education 623		3	-
Education 647		-	9
Total		**9**	**9**

Curriculum Outline - Chemistry – B.S./M.T. (Secondary Chemistry)

Freshman Year	**Semester**	**1st**	**2nd**
Sociology 205		-	3
Communication 103		3	-
English 101-102		3	3
Chemistry 201-202		4	4
Mathematics 151-152		4	4
Health 200 or Physical Education Activity		-	2
University 101		-	1
History 106		3	-
Total		**17**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
Mathematics 205		3	-
Chemistry 301-302		4	4
Physics 203-204		3	3
Physics 215- 216		1	1
Humanities		-	3
Psychology 203		-	3
Biology 105-106		4	4
Total		**15**	**18**

Junior Year	**Semester**	**1st**	**2nd**
Chemistry 313, 408		4	4
Chemistry 303, 304		4	4
Chemistry 401, 402		4	4
Education 200		-	3
Education 300-302		3	3
Foreign Language (Any Level)		3	-
Total		**18**	**18**

Senior Year	**Semester**	**1st**	**2nd**
Chemistry 405, 406		1	1
Chemistry 418 (I and II)		3	3
Chemistry 419, 509		4	3
Chemistry Elective		3	3
[6]Education 552, 517		3	3
[6]Education 506, 531		3	3
Total		**17**	**16**
Total Credits 124 Undergraduate/ 30 Graduate Credits			

Fifth Year	**Semester**	**1st**	**2nd**
Education 608		3	-
Education 610		3	-
Education 623		3	-
Education 647		-	9
Total		**9**	**9**
Total		**18 Graduate Credits**	
Total Undergraduate Credits:			**120**
Total Graduate Credits:			**31**
Total Credits – 5-yr Program			**151**

[1]Students may elect to take Calculus I & II (MAT 151-152) instead of Precalculus Mathematics I (MAT 117). Note that Precalculus Mathematics II (MAT 118), not Precalculus Mathematics I (MAT 117) is the prerequisite to Calculus I (MAT 151).

[2]Students may elect to take any of the Humanities courses from the list of approved Humanities electives.

[3]Students in this curriculum must select at least three (3) biology electives from the Integrative Biology list. The remaining two Biology electives may come from any group of Biology electives.

[4]Students are urged to complete at least one, preferably two, research internships during any summer. Students who have successfully completed a summer research internship and presented their findings may earn Research Problems (BIO 408) credit. A second external summer research internship may count as Research Problems (BIO 505).

[5]Students may not enroll in Special Projects (407), Research Problems (408) or Research Problems (505) more than once.

[6]EDU 508, 517, 550, 552 are counted toward graduate degree requirements and are not part of the 120 credit hours that count toward the Bachelor of Science degree in Biology.

**Note: Students who withdraw from a course during the semesters that have 12-14 credit hours are in jeopardy of losing financial aid/and or scholarship support.*

Integrative Biology Electives (Select at least three): BIO 420, 504, 507, 509, 514, 515, 516, 516, 517, 518, 519, 524, 525, 526, 538, 540, 541, 542, 543, 544; CHE 509; MES 130, 450, 452, 510.

Anatomy, Physiology & Development Electives: BIO 224, 225, 301, 302, 308, 336, 402, 409, 411, 503, 506, 510, 513, 521, 546.

Genetics/Molecular & Cellular Biology Electives: BIO 309, 311, 312, 404, 405, 406, 410, 423, 424, 430, 502, 512; CHE 303-304.

Biological History & Method Electives: BIO 391, 407, 422 A&B, 501, 508, 520, 523; NUR 221.

Curriculum Outline – English – B.A./M.T. (Secondary English)

Freshman Year	**Semester**	**1st**	**2nd**
English 101-102		3	3
History 106		3	-
Social Science		3	3
Humanities 201		3	-
Mathematics 110, College Math II (or higher)		3	-
University 101		1	-
Physical Education		1	1
Communication 103		-	3
Humanities Elective		-	3
Biology 101		-	3
Total		**17**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
English 208		3	-
English 201-202		3	3
English 203-204		3	3
[1]Foreign Language – Intermediate		3	-
Education 200		3	-
[2]English 216, World Literature II		-	3
Education 300		-	3
Education 302		-	3
Total		**15**	**15**

Junior Year	**Semester**	**1st**	**2nd**
English 220		3	-
[3]English 313, African American Literature I		3	-
English 311-312		3	3
English Free Elective		3	3
Free Elective		3	3
English 300		-	3
English 320		-	3
Total		**15**	**15**

Senior Year	**Semester**	**1st**	**2nd**
[4]English 409, The Novel		3	-
English 430, Senior Capstone5		3	-
Free English Elective		3	3
Free Elective		3	3
Free Elective		3	3
English Free Elective		-	3
English Required English Ed Elective – Lit		-	3
Total		**15**	**15**
MAJOR TOTAL…			**123**

**This four year schedule represents a suggested sequence. Courses may be taken at any time students can schedule them keeping in mind prerequisite requirements.*

[1]The major requires through the Intermediate Level. If it is met, students should take other courses in its stead. If the student has less than two years of high school Foreign Language, he must enroll in Foreign Language 101 and complete the two- year sequence.

[2]ENG 215 World Literature I may be substituted for this State Licensure requirement.

[3]This requirement can be met by ENG 313 or 314.

[4]This requirement can be met by ENG 409 or 410.

[5]The prerequisites must be met before one can enroll in this course.

Curriculum Outline – Mathematics – B.S./M.T. (Secondary Level, 6-12)

Freshman Year	**Semester**	**1st**	**2nd**
Communication 103		-	3
English 101-102		3	3
History 106		3	-
Humanities 201		-	3
Mathematics 151-152		4	4
Sociology 205		3	-
Psychology 203		-	3

University 101	1	-
Total	**17**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
Computer Science 151 or above		4	3
Political Science 201		-	3
Education 200-300		3	3
Health		-	2
Mathematics 206-208		3	3
Mathematics 251-260		4	3
Mathematics 224		2	-
Total		**16**	**17**

Junior Year	**Semester**	**1st**	**2nd**
Education 302		3	-
Mathematics 324, 312		2	3
Mathematics 310-320		3	3
Mathematics 311, 340		3	3
Mathematics 315		3	-
Physics 203-204		3	3
Physics 215-216		1	1
Free Elective		-	3
Total		**18**	**16**

Senior Year	**Semester**	**1st**	**2nd**
Mathematics 416, 417		3	3
Mathematics 425, 426		1	1
Mathematics 427, 428		2	2
Mathematics 504, 431		3	3
Free Elective		-	3
Education 1508, 1 506		4	3
Education 1517,1 550		3	3
Total		**16**	**18**
Total 121 Undergraduate/13 Graduate Credits			

Fifth Year	**Semester**	**1st**	**2nd**
Education 608		3	-
Education 610		3	-
Education 623		3	-
Education 647		-	9
Total		9	9
Total			**18 Graduate Credits**
Total Undergraduate Credits:			**121**
Total Graduate Credits:			**31**
Total Credits – 5-yr Program			**152**

[1]Note that EDU 506, 508, 517, 550 are counted toward graduate degree requirements and are not part of the 121 credit hours that count toward the Bachelor of Science degree in Mathematics.

Curriculum Outline – Music – B.A./M.T. (Pre K-12)

Freshman Year	**Semester**	**1st**	**2nd**
English 101-102		3	3
History 106		-	3
Major Ensemble (BAN/CHO/ORC		1	1
[1]Major Performance 107-108		2	2
Minor Performance PIA/VOI 103/105, 104/106		1	1
Mathematics 110		3	-
Humanities 201		3	-
Humanities Elective		-	3
Natural Science		-	3
Communication 103		3	-
Physical Education Elective		-	1
Recital Attendance 101, 101		0	0
University 101		1	-
Total		**17**	**17**

Sophomore Year	**Semester**	**1st**	**2nd**
Music 121-122		2	2
Music 119-120		1	1
Music Education 201		-	1
Music Education 207		3	-
Recital Attendance 101, 101		0	0
Social Science		3	3
Free Elective		3	3
Total		**18**	**18**

Junior Year	**Semester**	**1st**	**2nd**
Education 302, 300		3	3
[4]Education 506		-	3
Major Ensemble (BAN/CHO/ORC		1	1
Major Performance 307-308		2	2
Music 305-306		3	3
Music 211-212		2	2
Music 222-233		1	1
Minor Performance 203/205, 204/206		1	1
Music Education 302		2	-
Recital Attendance 101, 101		0	0
Total		**15**	**16**

Senior Year	**Semester**	**1st**	**2nd**
[4]Education 517, 550		3	3
Major Ensemble (BAN/CHO/ORC		1	1
Major Performance 407-408		2	2
Music 311		2	-
Music 401		-	2
[3]Music Education 205/206		-	1
[2]Music Education 318, 416/417/418		2	2
[4]Music Education 530, 535		3	3
Recital Attendance 101, 101		0	0
Music Education 202		1	-
Music Education 303/304		-	2
Music Education 204		1	-
Total		**15**	**16**
Total: 120 Undergraduate/12 Graduate Credits			

Fifth Year	**Semester**	**1st**	**2nd**
Education 608		3	-
Education 610		3	-
Education 623, 648		3	9
Total		**9**	**9**
Total: 18 Graduate Credits			
Total Undergraduate Credits:			**120**
Total Graduate Credits:			**30**
Total Credits – 5-yr Program			**150**

[1]Audition required.

[2]Instrumental majors will take MUE 417; String Majors will take MUE 418; Piano, Organ, and Voice majors will take MUE 416.

[3]Instrumental, String, and Voice majors will take MUE 205; Organ and Piano majors will take MUE 206.

[4]Note that EDU 506, 517, 550; MUE 535 are counted toward graduate degree requirements and are not part of the 120 credit hours that count toward the Bachelor of Arts degree in Music.

Graduate Programs in Education

The Department of Education offers several graduate degree programs leading to teacher licensure (Master in Teaching traditional graduate program), licensure as a school-based leader or higher education administrator (Master of Arts in Educational Leadership), and preparation for executive leadership of a school district, college or university, or educational researcher (Doctor of Philosophy degree in Educational Management). Further detail on these programs is provided in the Graduate College section of this catalog.

Department of Sports Science and Wellness

The mission of the Department of Sports Science and Wellness is to be a nationally recognized leader in the professional preparation of promising young men and women for positions of leadership and service in Kinesiology, Sport Management, and Aquatics at the community, national, and international levels; and a model for universities nationwide of innovative programs and services designed to improve professional development and quality of life throughout the campus and surrounding community.

The Department of Sports Science & Wellness offers professional preparation programs for majors and a health and physical activity program for non-majors to fulfill the general education requirement. The Department offers two undergraduate degree programs leading to the Bachelor of Science degree: Kinesiology and Sport Management. The department also offers a concentration in Aquatics. Physical activity service courses for the general education requirement include a wide variety of individual and team lifetime sports activities. The Department offers the Master of Science in Sport Administration.

The major offers coursework and field experiences, including practicums and internships. Participation in student organizations, professional associations, and other experiences related to the major, such as the Department-sponsored Majors' Club, Healthy Hamptonians, or American Red Cross Club, is strongly encouraged.

Kinesiology Degree Program

The Bachelor of Science degree in Kinesiology is designed to prepare students to meet the entry requirements for most graduate programs in Physical Therapy including the Hampton University Physical Therapy (D.PT.) graduate program. Additionally this curriculum provides a solid foundation for graduate study in Athletic Training and other areas in the exercise sciences

Career Opportunities

Graduates most often pursue graduate study in a variety of areas, such as exercise science, physical therapy, athletic training, occupational therapy, physical education, health education or public health. Career opportunities for Kinesiology majors include positions in businesses or corporations as fitness and health directors; in health or recreation centers as program directors, trainers, or instructors; and in other settings related to health, physical fitness and exercise science including coaching, therapy, orthotics and prosthetics. The Department has an impressive track record of students finding employment and entering prestigious graduate schools.

Course Requirements-Kinesiology

Required in Major ..... 46 hrs.
Education 302 ..... 3 hrs.
Health Education 203, 211, 309, 441, ... 12 hrs.
Mathematics 205 ..... 3 hrs.
Physical Education 208, 230, 301, 306, 362
402, 427, 480, 481 ..... 27 hrs.
Physical Education Activities (135 required ..... 1 hrs.
Related Requirements ..... 40 hrs
Physics 201, 202, 215-216 ..... 10 hrs.
Chemistry 101-102 ..... 8 hrs.
Biology 302, 336 ..... 7 hrs.
Free Electives 15 hrs.
General Education Requirements ..... 34 hrs.
Biology 103 4 hrs.
Communication 103 ..... 3 hrs.
English 101-102 ..... 6 hrs.
Health Education 200 ..... 2 hrs.
History 106 3 hrs.
Humanities 201-Electives ..... 6 hrs.
Mathematics 117 ..... 3 hrs.
Psychology 203 ..... 3 hrs.
Sociology 205 3 hrs.
University 101 ..... 1 hr.
Total Credits **120 hrs.**

Curriculum Outline – Kinesiology

Freshman Year	**Semester**	**1st**	**2nd**
Biology 103		-	4
Communication 103		3	-
English 101-102		3	3
Health Education 200		2	-
History 106		-	3
Humanities 201- Elective		3	3
Mathematics 117, 205		3	3
University 101		1	-
Total		**15**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
Biology 302		-	4
Education 302		3	-
Free Elective		3	3
Physical Education 208		3	-
Health Education 203		-	3
Psychology 203		3	-
Sociology 205		-	3
Chemistry 101, 102		4	4
Total		**16**	**17**

Junior Year	**Semester**	**1st**	**2nd**
Biology 336		3	-
Free Elective		-	3
Health Education 309		-	3
Physical Education 301		3	-
Physical Education 135		1	-
Physical Education 306		3	-
Physical Education 427		-	3
Physics 201-202		4	4
Physics 215-216		1	1
Total		**15**	**14**

Senior Year	Semester	1st	2nd
Free Elective		3	3
Health Education 211, 441		3	3
Physical Education 362		3	-
Physical Education 230		3	-
Physical Education 402		-	3
Physical Education 480, 481		3	3
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

[1]Individual/Dual Sport: PED 101, 111, 112, 117, 118, 121, 137, 138, 140, 147, 149, or other individual/dual sport.

[2]Team Sport: PED 109, 129, 131, 143, 152, or other team sport.

[3]Physical Science Elective: CHE 150, CHE 201, ESC 202, ESC 204, PHY 201, PHY 203, SCI 102, SCI 104, APS 101, APS 102, APS 105, APS 106.

[4]Swimming course: PED 108, 133, 134, 135, 226, 227, 228.

Sport Management Degree Program

Sport Management majors will receive a Bachelor of Science degree in sport management. The Sport Management major prepares individuals for entry level positions of management and service in a variety of sports organizations in the public and private sectors. The curriculum includes major and related coursework in sport management and business, electives, and a culminating internship experience. Requirements for the internship and graduation include a grade of "C" or higher in all Departmental courses (prefixes of HEA, PED, and REC); an overall Grade Point Average of 2.0 or higher; and other Department, Division, School, and University requirements.

Career Opportunities

Career opportunities for sport management majors include; front office personnel for professional teams, coaches, ticket managers, marketing managers, convention managers, sports writers, broadcasters, and sports information directors. Graduates also may choose to pursue graduate study in sport management, business administration, law, or other related fields of study, leading to positions in which they can develop, interact, and transform the sport industry in positive ways. The major offers coursework and a culminating internship experience. The Department has an impressive track record of students finding employment and entering graduate school.

Course Requirements – Sport Management Program

Required in Major ..... 44 hrs.

Physical Education 224, 240, 340, 341, 345, 360, 491, 492, 494
plus two Sport Management elective courses from PED 342, 362, 364, 367, 395, 405 ..... 42 hrs.
Physical Activity ..... 2 hrs.
Required in Related Areas ..... 42 hrs.
Accounting 203 ..... 3 hrs.
Computer Science/Management 323 ..... 3 hrs.
Economics 200/201 ..... 3 hrs.
English 218 or Management 340 ..... 3 hrs.
Finance 304 ..... 3 hrs.
Free Electives ..... 6 hrs.
Management 301, 305, 312 ..... 9 hrs.
Marketing 305, 414 ..... 6 hrs.
Physical Science Elective ..... 3 hrs.
Psychology 346 ..... 3 hrs.
General Education Requirements ..... 34 hrs.
Biology 103 ..... 4 hrs.
Communication 103 ..... 3 hrs.
English 101-102 ..... 6 hrs.
Health Education 200 ..... 2 hrs.
History 106 ..... 3 hrs.
Humanities 201-Electives ..... 6 hrs.
Mathematics 110 ..... 3 hrs.
Psychology 203 ..... 3 hrs.
Sociology 205 ..... 3 hrs.
University 101 ..... 1 hr.

Total Credits 120 hrs.

Curriculum Outline - Sport Management

Freshman Year	Semester	1st	2nd
Biology 103		4	-
Communication 103		-	3
English 101-102		3	3
History 106		-	3
Humanities 201-Elective		3	3
Mathematics 110		3	-
Physical Education Activity		1	1
Psychology 203		-	3
University 101		1	-
Total		**15**	**16**

Sophomore Year	Semester	1st	2nd
Accounting 203		-	3
Economics 200/201		3	-
Elective		3	-
Health Education 200		2	-
Management 301		3	-
Physical Education 225, 360		3	3
Physical Education 240		-	3
[1]Physical Science		3	-
Psychology 346		-	3
Sociology 205		-	3
Total		**17**	**15**

Junior Year	Semester	1st	2nd
Computer Science/Management 323		-	3
English 218 or Management 340		3	-
Finance 304		-	3
Management 414, 312		3	3
Management 305, 312		3	-
Marketing 305		3	-
Physical Education 340		-	3
Physical Education 345		-	3
[2]Physical Education Elective (Sport Mgt)		3	-
Total		**15**	**15**

Senior Year	Semester	1st	2nd
Elective		3	-
Physical Education 341		3	-
Physical Education 491		3	-
Physical Education 492		3	-
Physical Education 494		-	12
[2]Physical Education Elective (Sport Mgt)		3	-
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

[1]*Physical Science Elective: CHE 150, CHE 201, ESC 202, ESC 204, PHY 01, PHY 203, SCI 102, SCI 104, APS 101, APS 102, APS 105, APS 106.*

[2]*Physical Education – Sport Management Elective: PED 342, 362, 364, 367, 395, 405.*

The Aquatics Concentration

The Aquatics concentration is open to students in any major field of study. The program aims to prepare students for career and employment opportunities while they are working toward their degree or for a professional career path in aquatics. The Aquatics concentration provides basic preparation in aquatics and includes 17 hours of coursework in the following areas: swimming skills, aquatic instructor, aquatic electives, first aid skills and techniques, and aquatic management. Requirements for the practicum and completion of the concentration include a grade of "C" or higher in all courses in the concentration.

Career Opportunities

Career opportunities in aquatics include positions as aquatic directors or managers, pool managers, head lifeguards, swimming instructors, aquatic exercise instructors, adapted aquatic instructors, aquatic physical therapists, water safety specialists, or swim coaches in city park and recreation departments, colleges and universities, youth agencies, resorts and water parks, beaches, swim clubs, fitness centers and natatoriums, rehabilitation or therapeutic facilities, and entrepreneurial ventures in aquatics. Positions may be full-time or part-time, seasonal or year-round, indoor or outdoor. Individuals with an aquatics concentration also may pursue advanced certification in many aquatics specialties or graduate study in a variety of fields such as recreation management, public administration, physical education, and kinesiology, among others. The Department has an impressive track record of students finding employment and entering graduate school.

Course Requirements – Aquatics Concentration/ Minor

Swimming Skills ..... 2 hrs.
Choose two courses from Physical Education 134, 135, 226

Aquatics Instructor ..... 4 hrs.
Choose two courses from Physical Education 227, 373 and Recreation 206, 311

Aquatics Electives ..... 3 hrs.
Choose two courses from Physical Education 133, 160, 228, other approved courses

First Aid Skills & Techniques ..... 3 hrs.
Health Education 312

Aquatics Management ..... 6 hrs.
Recreation 350, 420

Total Credits **18 hrs.**

Graduate Program in Sport Administration

The graduate program in Sport Administration is comprised of three concentrations: intercollegiate sports, sport business leadership, and international sports. The program combines both online and on campus instructional delivery, and students have the opportunity to do internships, volunteer work, and specified course assignments with the Hampton University Athletic Department, as well as seek study abroad opportunities through the university's International Office. Further detail on this program is provided in the Graduate College section of this catalog.

School of Nursing

The School of Nursing is an integral unit of the University and shares its goals and ideals of excellence in the teaching-learning process. The undergraduate education program at Hampton University is designed to include general education content, professional content, and clinical experiences. The baccalaureate program in nursing leads to a Bachelor of Science degree and offers a foundation in the liberal arts, humanities, and natural and behavioral sciences. This foundation allows students to bring theoretical and conceptual knowledge derived from these courses and life experiences to the major concentration in nursing and health science.

National Accreditation

The baccalaureate degree programs in nursing and the master's degree programs in nursing at Hampton University is accredited by the Commission on Collegiate Nursing Education, 655 K. Street NW, Suite 750, Washington, DC., 20001, 202-887-6791; the undergraduate program is approved by the Virginia Board of Nursing (VBON). The School of Nursing is also an agency member of the National League for Nursing (NLN), and the American Association of Colleges of Nursing (AACN).

National Licensure Eligibility

All graduates of the baccalaureate nursing program are eligible for application for licensure to take the National Council Licensure Examination (NCLEX-RN®) to practice professional nursing. This examination is administered by the National Council of State Boards of Nursing (NCSBN). Graduates registered in the Commonwealth of Virginia may apply to any state for licensure by endorsement. Graduates of the masters nursing program are eligible to take a certification examination as an advanced practice nurse.

Clinical Clearance Requirements

An initial health evaluation, clinical clearance and current CPR certification is required prior to the start of the first clinical course. Annual health evaluation updates are also required. Students must remain eligible for clinical agency experiences by meeting the clinical clearance requirements, which include (1) an annual criminal background check (to include drug screening); (2) an annual physical examination; (3) current immunizations to include tetanus and diphtheria (Td) (within the past 10 years); pertussis (once since obtaining age 19) or Tdap within the past 10 years; hepatitis B (series of 3); varicella (series of 2); measles, mumps, rubella (MMR) series of 2; an annual tuberculosis screening; seasonal flu vaccine is required annually (which includes H1N1); (4) liability insurance (please check required coverage amount with the School of Nursing); and (5) cardiopulmonary resuscitation (CPR) certification from the American Heart Association (BLS for Healthcare Providers). The School of Nursing uses an outside vendor to facilitate the submission and clearance of required health evaluations, criminal background check and liability insurance information. Students are also required to complete annual trainings on HIPAA and OSHA standards. All students must create an account with the vendor, this is an annual requirement while enrolled in the professional nursing program. The costs associated with these clinical requirements are the responsibility of the student. Required documentation must be uploaded into the secure platform by May 1st (main campus). All clinical clearance requirements must remain current from May to May to ensure eligibility for clinical nursing courses. Online CPR training and certification will not be accepted. Students who do not meet clinical clearance requirements will not be allowed to participate in clinical experiences necessary to meet requirements of the course. Please note that some clinical agencies may require additional clearance documents (i.e. drug screens or criminal background check) within 30 days of your first clinical. You will be notified of the additional requirements. All students must submit all required documents in the allotted time frame in order to achieve clinical clearance. Failure to complete the requirements by the established due dates will require that the student withdraw from any scheduled clinical courses and may result in a delay in completing the program of study or dismissal from the program. Students who fail to comply will be subject to administrative withdrawal.

Student Health Status: Physical Examinations and Immunizations

All nursing and health sciences students enrolled in courses with a clinical component must submit satisfactory credentials regarding his or her health status. Medical records and health certifications will be submitted, annually, by way of digital upload to the vendor's website. The student's health status is reviewed annually. A current health record from a health care provider or family physician including evidence of an annual physical examination and immunizations will be maintained by the vendor. Records from the previous year will not be accepted. Students will not be permitted to attend a clinical course if their health records are not current. Failure to complete the requirements by the established due dates will require that the student withdraw from any scheduled clinical courses and may result in a delay in completing the program of study or dismissal from the program Students who fail to comply will be subject to administrative withdrawal.

Liability Insurance

All students are required to obtain and provide PROOF of liability insurance to cover the periods of enrollment in practicum courses. Proof of liability coverage will be uploaded to the vendor's website. Students are requested to verify the amount of coverage that is required with the Office of Student Academic Support Services, faculty advisors, and/or clinical instructors prior to purchasing a liability insurance policy. Policy must show evidence of professional liability coverage (for student Registered Nurse), list the start and end dates of coverage, and the amount of coverage (example: $1,000,000 each claim to $6,000,000 aggregate). Students are encouraged to purchase liability insurance with any company of their choice.

Cardiopulmonary Resuscitation

Current certification in cardiopulmonary resuscitation is required to enroll and remain enrolled in nursing clinical practicum courses. Students must complete and maintain certification from the American Heart Association (BLS for Healthcare Providers) prior to beginning any clinical course. Online CPR training and certification will not be accepted.

Criminal Background Checks

A criminal background check (to include drug screening) must be completed annually via the designated vendor website. The package code for Hampton University School of Nursing (Please note there is a different code for each program) is provided in the Student Instruction Form located on the School of Nursing website.

Dress Code and Nursing Uniform

All students while on Hampton University School of Nursing premises (classroom and lab settings), are required to wear scrubs and appropriate identification starting with the first School of nursing course. On days that students are required to wear professional dress, students must adhere to the University's dress code for professional dress. In addition, each student is expected to purchase the quota of nurse's uniforms and equipment required by the School of Nursing (see School of Nursing Handbook). The nurse's uniform is appropriate only in the clinical setting; therefore, it is considered inappropriate to wear the uniform as street apparel.

Department of Undergraduate Nursing Education

The undergraduate program in nursing is designed to meet the needs of students who plan to enter professional nursing practice or continue their studies and pursue graduate education. High school graduates and transfer students, such as registered nurses (RNs), licensed practical nurses (LPNs), military personnel, and those seeking a change in career, may seek counseling from the Office of Student Academic Support Services, (located in the School of Nursing), for assistance in meeting individual goals for completion of the Bachelor of Science in nursing degree requirements.

Criteria For Admission

All students must meet the general admission requirements of Hampton University and the specific admission requirements of the School of Nursing. Admission to the Department of Undergraduate Nursing Education program is a two-tier process: students must be admitted to the Pre-Professional Nursing concentration, and to the Professional Nursing program.

Pre-Professional Nursing Program

First Time College Student

High school applicants must have a cumulative GPA of 3.0 or higher (on a 4.0 scale), a grade of B or higher in high school math and science courses (i.e. Algebra, Biology and Chemistry), and strong standardized test scores (SAT or ACT) with a particular emphasis on quantitative. The acceptance letter of enrollment into Hampton University satisfies admission to the Nursing Pre-Professional concentration, but does not automatically guarantee acceptance into the Professional Nursing program.

Transfer Students

All transfer students seeking admission to the Pre-Professional Nursing concentration are subject to the same admission policies governing non-transfer undergraduate students. Any student who has completed courses at an accredited college or university may request transfer credit for general education courses only. Students must provide official transcripts listing the courses and a catalog course description from the college or university where the courses were taken. Only grades of "C" or higher are acceptable for transfer credit. General education coursework must be no older than ten (10) years; math and science coursework must be no older than five (5) years. Students must have a cumulative grade point average of 3.0 or higher from all schools attended. Students who have been enrolled in another nursing program must have left that prior program in good academic standing. Unlicensed applicants who have failed two nursing courses in another registered nursing program will not be considered for admission into Hampton University School of Nursing.

Active Duty Military and Veterans

The School of Nursing abides by University policies for awarding advanced credit for active duty military and veterans. Veterans/ active duty military are subject to the same admission policies governing all other undergraduate and transfer students and must submit copies of DD Form 214 or DD Form 295. Active duty military and veteran who were previously military corpsman/medics may elect to seek advanced placement credit by successfully completing credit by examination. An additional fee is required. The School of Nursing does not offer letters of advanced admission to the Professional Nursing Program.

Change of Major

An undecided major of student listed as a major within another department must submit a change of major form along with student transcripts to the School of Nursing for evaluation by the Chairperson of the Department of Undergraduate Nursing

A student who has been previously enrolled in the undergraduate nursing education program at Hampton University and has left the department, for any reason, has to reapply for admission to the Pre-Professional Nursing concentration.

Professional Nursing Program

The School of Nursing utilizes a competitive ranking scale for the Professional Nursing Program admission process. Emphasis is placed on overall GPA, science and math GPA, and scores on a designated entrance examination. A student must complete a separate application for admission to the Professional Nursing Program in the School of Nursing. Meeting the minimum requirements for the university does not guarantee admission to the Professional Nursing program. The acceptance letter into Hampton University satisfies admission to the Pre-Professional Nursing concentration, but does not automatically qualify students for acceptance into the Professional Nursing Program.

Applications to the Professional Program must be submitted to the School of Nursing, Office of Student Academic Support Services, Hampton University, Hampton, Virginia 23668. All related documents must be received by the deadline of March 15th. Application pack- ets may also be obtained from the Office of Student Academic Support Services or the School of Nursing website. Applicants not admitted to the Professional Nursing Program may reapply the subsequent admission cycle. Successful completion of the Pre- Professional Nursing program does not guarantee admission to the Professional Nursing program. Admission is provisional pending verification of final grades in the Pre-professional program. Admissions may be rescinded if the GPA, test scores or course grades no longer meet the admission requirements (e.g are lower than what was reported/expected on the application).

Criteria for Admission to the Professional Program

1. Successful completion of all Pre-Professional courses.
2. An earned cumulative grade point average of 3.0 or higher on a 4.0 scale for all postsecondary schools attended.
3. A cumulative grade point average of 3.0 or higher on a 4.0 scale in all required mathematics and science courses for all postsecondary schools attended.
4. All mathematics and sciences courses must have been completed within the last five (5) years.
5. Not more than one repeat in required math or science courses to achieve a passing grade of "C" or higher.
6. Not more than one repeat of required nursing courses to achieve a passing grade of "78" or higher.
7. Not more than one course withdrawal in math, science or nursing courses to keep from failing the course.
8. Not more than one failure in required mathematics, science or nursing courses.
9. Acceptable scores on the Assessment Technologies Institute (ATI®) Test for Essential Academic Skills (TEAS®) admissions assessment.
10. Registered Nurse (RN) students who have completed nursing courses at an accredited college or university may be admitted to the Professional Nursing program with such advanced credits as the records warrant. Registered Nurse (RN) and Licensed Practical Nurse (LPN) students must provide evidence of an unencumbered valid state license to practice professional nursing.

Requirements for Professional Program Readmission

1. Reapply to the Office of Admissions if you withdraw from a course or separated from the University.
2. Submit an application for readmission one semester prior to the planned date of reentry.
3. Meet all requirements for admission to the Professional Nursing Program.
4. Upon readmission, students will be required to complete the program requirements of the current curriculum.
5. Students with two or more failures in nursing are not eligible for readmission.
6. Validate clinical competencies of previous clinical nursing courses prior to resuming the next clinical nursing course.
7. Students who are dismissed for disciplinary policy violations are not eligible for readmission.
8. Students must accept all stipulations of readmission and submit a letter of intent.

Advanced Standing

The University grants credits for acceptable performance on the Advanced Placement Examination administered by the College Board. A minimum score of three (3) is required in all subject areas. Credit for CLEP, International Baccalaureate (IB), Dual Enrollment and other examinations may be accepted by the University and applied to degree requirements with the approval of the Office of Testing Services, Office of the Registrar, the major department, and the department of the discipline in which the subject is taught. Students may also request permission to complete a credit by examination in those non-nursing courses in which they are proficient. There are specific procedures for the credit by examination process, and the detailed procedures are available upon request. NOTE: There is an additional fee for each credit by examination as well as a fee to have course credits applied to the transcript.

Registered Nurses (RNs)

Registered nurses (RNs) with an unencumbered license are admitted with advanced standing. Registered nurse students are required to provide evidence of an unencumbered valid state license to practice professional nursing. The same admission policies governing undergraduate students seeking admission to Hampton University apply to registered nurse students. RN students are not required to complete the ATI TEAS® assessment. The evaluation of an official transcript of previous coursework at a school of nursing, college, or university is required before advanced credit is awarded. Advanced nursing credits will be posted after 18 nursing credits have been earned at Hampton University.

Licensed Practical Nurses (LPNs)

Licensed practical nurses (LPNs) with an unencumbered license are admitted with advanced standing. Licensed practical nurse students are required to provide evidence of an unencumbered valid state license. The same admission policies governing undergraduate students seeking admission to Hampton University apply to licensed practical nurse students. A transcript must be provided from a practical nursing school, as well as all colleges and universities attended. Advance nursing credits will be posted after (18) nursing credits have been earned at Hampton University.

Veterans/Active Duty Military

The School of Nursing abides by the University policies for awarding advanced credit for active duty military and veterans. Veterans/active duty military are considered for admission to the baccalaureate nursing program and are subject to the same admission policies governing undergraduate students. Veterans and active duty personnel must submit copies of DD Form 214 or DD Form 295.

Academic Retention and Progression

1. Complete all courses in the sequence outlined. Theory nursing courses with related practicum courses must be taken concurrently.
2. The minimum passing grade for all didactic and clinical nursing courses is 78.
3. A grade less than 78% in any nursing course is considered failing in the School of Nursing. Students who earn a grade of "77.99" or lower in either a theoretical nursing course or the corresponding clinical course will be required to enroll and successfully complete the designated section of the remediation course the following semester. Upon completion of the remediation course, the student is then eligible to repeat the previously failed nursing course. Failure to meet the course objectives of the remediation course is grounds for dismissal from the Professional Nursing program.
4. Students who earn a grade less than 78 in the following major nursing courses, NUR 215/216, 233/234, 315/316, 345/346, 415/417, 423/424, 442/443, 445/446 or 455/456, are required to enroll in the designated section of the NUR 300 Special Topics in Nursing course (tutorial). These tutorial course sections must be taken simultaneously with the repeated nursing courses.
5. Students who earn a grade below 78%, or withdrew from the following required non-clinical (practicum) courses: NUR 105, 202, 217, 221, 230, 307, 308, 312, 330, 328, and 418 will be unable to progress to the next numerical sequence of nursing courses until they have successfully completed the aforementioned courses (e.g. NUR 418 must be successfully completed prior to enrolling in NUR 445/446).
6. Students who fail the nursing course series in the final semester of the senior year must concurrently enroll in the failed nursing and corequisite courses, and successfully complete the specified special topics course NUR 300-07.
7. Students may not withdraw from a nursing course more than once to prevent failure in the course.
8. Pass a timed dosage calculations examination at the beginning of each clinical nursing course. Passage at the 90% level is a requirement of each clinical course. Students who score below 90% on the dosage calculations assessment must remediate prior to taking the retake of the assessment. Students must achieve the required score prior to entering the clinical environment.
9. Remain eligible to meet the clinical clearance requirements (See section on Clinical Requirements). Students who do not meet all clinical clearance requirements will be withdrawn from the theory and clinical practicum by the School of Nursing Administration and must reapply for admission to the Professional Nursing program.
10. Submit a criminal background check every year. This is necessary because students who have a criminal record may not be eligible to sit for the NCLEX-RN® examination or receive licensure by state boards of nursing. The School of Nursing cannot guarantee that a student with a criminal record will be allowed to sit for the licensure examination or be permitted into a clinical agency for the practicum experience. Continuance in the program of a student with a criminal history will not set precedence for the continuance of another.
11. An incomplete (I) grade indicates that a student has not completed all coursework required for a grade; students are allowed up to one academic year to complete the work. The incomplete grade converts to an "F" if the coursework is not completed within a year. Students may not progress to the next sequence of nursing courses if they have an "I" in a required nursing course. A grade of "I" indicates the student has maintained a passing average, but for reasons beyond his or her control, some specific item such as an examination, a report, an assignment, or an experiment has not been completed. The student holding a grade of "I" is responsible for taking the initiative in arranging with the instructor to change the grade.
12. Licensed practical and registered nurse students must maintain an active unencumbered license to practice nursing while enrolled.

Dismissal

1. A student who receives a grade lower than a 78 in two required nursing courses, whether the same course or two different courses, will be dismissed from the School of Nursing.
2. A student whose behavior violates the University Code of Conduct, the Code of Ethics for Nurses, or the Virginia Nurse Practice act will be dismissed from the School of Nursing.
3. A student with a positive drug screen not attributed to prescription medications will be dismissed from the School of Nursing and referred to the Office of the Vice President of Student Affairs.

Exceptions to retention and dismissal policies may be made by the administration due to exceptional circumstances. All cases will be reviewed by the administration on a case by case basis. Decisions made by the administration about one student will not establish a precedent for others.

Graduation

1. A minimum of 30 semester hours of credit earned at Hampton University; the student must be in residence the final 30 semester hours prior to the completion of degree requirements.
2. The minimum number of credit hours specified by the applicable curriculum outline:
    a. A minimum of 120 credit hours of coursework as specified in the 4-year curriculum outline for beginning nursing students.
    b. A minimum of 120 semester credit hours as specified in the curriculum outline for licensed practical nurse students.
    c. A minimum of 120 semester credit hours as specified in the curriculum outline for registered nurse students.

Special Expenses

A special fee for each student enrolled in the Professional nursing program will be assessed per semester. Nursing uniforms, lab coat, classroom/laboratory attire (scrubs), and assessment equipment, will require additional funds. Transportation to and from the clinical sites as well as the cost of the transportation is the responsibility of the student.

There are additional costs for the School of Nursing pin and a white uniform for the Pinning Ceremony. Candidates for graduation are advised to plan ahead to ensure financial resources are available to cover the cost of the testing and application fees for the national council licensure examination (NCLEX- RN®).

Clinical Experience

Students receive clinical practicum experiences in a variety of cooperating agencies. State law requires that all persons having contact with or caring for minors must have criminal history record, sex offender, and crimes against minors' registry checks. Clinical experiences are evaluated by the faculty who teach the practicum course, students must successfully meet the requirements of each clinical practicum course. One semester-hour credit is given for three (3) laboratory/clinical hours of practicum experience.

Four-Year Curriculum Outline for Beginning Nursing Students

Pre-Professional Nursing Program

Freshman Year	**Semester**	**1st**	**2nd**
Biology 224		-	4
Chemistry 101		4	-
Communication 103		-	3
English 101-102		3	3
History 106		3	-
Nursing 202		-	2
Mathematics 110		3	-
Physical Education Activity		-	1
Psychology 203		-	3
Nursing 105		2	-
University 101		1	-
Total		**16**	**16**

Sophomore Year	**Semester**	**1s**	**2nd**
Biology 225		4	-
Biology 304		-	4
Humanities 201		3	-
Sociology 205		3	-
Humanities Elective or 202		-	3
Nursing 217		-	3
Nursing 221		-	2
Nursing 230		1	-
Physical Education Activity		-	1
Psychology 311		-	3
Psychology 346 or Mathematics 205		3	-
General Elective		3	-
Total		**17**	**16**

Professional Nursing Program	**Summer**
Nursing 215	3
Nursing 216	3
Total	**6**

Junior Year	**Semester**	**1st**	**2nd**
Nursing 350		4	-
Nursing 345, 355		4	4
Nursing 346, 356		4	4
Nursing 328		-	2
Nursing 418		-	2
Total		**12**	**12**

Senior Year	**Semester**	**1st**	**2nd**
Nursing 419		-	2
Nursing 442, 443		2	2
Nursing 445, 455		4	4
Nursing 446, 456		4	4
Nursing elective		3	-
Total		**1**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

Four-Year Curriculum Outline for Licensed Practical Nurse Students (LPN-BS)

Pre-Professional Nursing Program

Freshman Year	**Semester**	**1st**	**2nd**
Biology 224		-	4
Chemistry 101		4	-
Communication 103		-	3
English 101-102		3	3
History 106		3	-
Mathematics 110		3	-
Physical Education Activity		-	1
Psychology 203		-	3
University 101		1	-
Total		**14**	**14**

Sophomore Year	**Semester**	**1st**	**2nd**
Biology 225		4	-
Biology 304		-	4
Humanities 201		3	-
Sociology 205		3	-
Humanities Elective or 202		-	3
Nursing 217		-	3
Nursing 221		-	2
Nursing 230		1	-
Physical Education Activity		-	1
Psychology 311		-	3
Psychology 346 or Mathematics 205.		3	-
General Elective		3	-
Total		**17**	**16**

Professional Nursing Program	**Summer**
Nursing 233	3
Nursing 234	3
Total	**6**

Junior Year	**Semester**	**1st**	**2nd**
Nursing 350		4	-
Nursing 345, 355		4	4
Nursing 346, 356		4	4
Nursing 328		-	2
Nursing 418		-	2
Total		**12**	**12**

Senior Year	Semester	1st	2nd
Nursing 419		-	2
Nursing 442, 443		2	2
Nursing 445, 455		4	4
Nursing 446, 456		4	4
Nursing elective		3	-
Total		**13**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

**LPN Advanced Placement Up to 7 Credits*

Bachelor of Science Nursing Curriculum (RN to BS Online)

Required Prerequisites for Admission to the Accelerated RN to BS Professional Nursing Program

	Semester	1st	2nd
BIO 224-225 – Anatomy & Physiology I & II		4	4
BIO 304 – Microbiology		4	-
CHE 101 – General Chemistry		-	4
COM 103 – Oral Communications		-	3
ENG 101-102 – Written communication I & II		3	3
General Elective		-	3
HIS 106 – History of World Civ II		3	-
HUM 201 – Humanities I		3	-
HUM 202 – Humanities II or Fine Arts		-	3
MAT 110 – College Mathematics I		3	-
MAT 205/PSY 346 - Statistics		-	3
SOC 205 – Intro to Sociology		3	-
Physical Education (2 activity courses or HEA 200 Health Education)		2	-
PSY 203 – Intro to Psychology		-	3
PSY 311 – Developmental Psychology		3	-
Waiver for UNV 101 with transfer of 30 or more credit		1	-
Total Number of Prerequisites Credits			**55**

One-Year (Full-time) Curriculum Outline for Registered Nurse (RN) Students

Summer Session	4 Week Term	1st	2nd
Nursing 308		2	-
Total		**2**	
	6 Week Term	**1st**	**2nd**
Nursing 315		-	2
Nursing 316		-	2
Total			**4**
First Semester	**8 Week Term**	**1st**	**2nd**
Nursing 307		3	-
Nursing 312		3	-
Nursing 328		-	2
Nursing 415		-	3
Nursing 417		-	3
Total		**6**	**8**
Second Semester	**8 Week Term**	**1st**	**2nd**
Nursing 418		2	-
Nursing 423		-	4
Nursing 424		-	4
Nursing 400 or 428		3	-
Total		**5**	**8**
Total Credits Required for Graduation			**120**

**RN Advanced Placement Up to 33 Credits*

Two-Year (Part-time) Curriculum Outline for Registered Nurse (RN) Students

Summer Session	4 Week Term	1st	2nd
Nursing 308		2	-
Total		**2**	
First Year			
First Semester	**8 Week Term**	**1st**	**2nd**
Nursing 307		-	3
Nursing 312		3	-
Total		**3**	**3**
Second Semester	**8 Week Term**	**1st**	**2nd**
Nursing 328		2	-
Nursing 415		-	3
Nursing 417		-	3
Total		**2**	**6**
Second Year	**6 Week Term**	**1st**	**2nd**
Nursing 315		-	2
Nursing 316		-	2
Total			**4**
First Semester	**8 Week Term**	**1st**	**2nd**
Nursing 418		2	-
Nursing 400 or 428		3	-
Total		**5**	
Second Semester	**8 Week Term**	**1st**	**2nd**
Nursing 423		-	4
Nursing 424		-	4
Total			**8**
Total Credits Required for Graduation			**120**

**RN Advanced Placement Up to 33 Credits*

Health Sciences

The Health Sciences program, under the auspices of the School of Nursing, offers a sequence of study that leads to the Bachelor of Science in Health Science with two concentrations; Community Health Promotion and Policy and Administration. The program allows students to gain educational experiences which develop understanding of their discipline and emphasize interprofessional collaborative healthcare practices. The program also provides the necessary background and experience for successful entry into and completion of graduate education.

The Community Health Promotion concentration facilitates acquisition of knowledge of theories and methods of health behavior. The concentration is focused on promoting and improving the health of individuals, families, groups, organizations, and communities. Students gain the requisite knowledge and skills to develop and implement health education materials and programs.

The Policy and Administration concentration combines healthcare, business related courses and information systems to develop the background necessary to become health administrators/managers and public health administrators within healthcare organizations. Policy and administration professionals assist in improving efficiency and quality in delivering healthcare services.

Admission Requirements

All students interested in the Health Sciences Degree Program must meet the general admission requirements of Hampton University. Students desiring to change their major to Health Sciences must seek approval of the Program Coordinator or the Chairperson of the Department of Undergraduate Nursing Education, and have a minimum grade point average of 2.0 on a 4.0 scale.

Clinical Clearance Requirements

An initial health evaluation, clinical clearance and current CPR certification is required prior to the start of the first practicum course. Annual health evaluation updates are also required. Students must remain eligible for practicum experiences by meeting the clinical clearance requirements, which include (1) an annual criminal background check (to include drug screening); (2) an annual physical examination; (3) current immunizations to include tetanus and diphtheria (Td) (within the past 10 years); pertussis (once since obtaining age 19) or Tdap within the past 10 years; Hepatitis B (series of 3); varicella (series of 2); measles, mumps, rubella (MMR) series of 2; an annual tuberculosis screening; seasonal flu vaccine is required annually (which includes H1N1); and (4) cardiopulmonary resuscitation (CPR) certification from the American Heart Association (BLS for Healthcare Providers). Online CPR training and certification will not be accepted.

The School of Nursing uses an outside vendor to facilitate the submission and clearance of required health evaluations, drug screens and criminal background check information. All students must create an account with the vendor, this is an annual requirement. The costs associated with these clinical requirements are the responsibility of the student. Required documentation must be uploaded into the secure platform by May 1st.

Students who do not meet clinical clearance requirements will not be allowed to participate in the internship experience which is required to meet requirements of the course. Please note that some clinical agencies may require additional clearance documents (i.e. drug screens or criminal background check) within 30 days of your internship. You will be notified of the additional requirements. All students must submit the required documents in the allotted time frame in order to achieve clinical clearance.

Students will not be permitted to attend an internship course if their health records are not current. Failure to complete the requirements by the established due dates will require that the student withdraw from any scheduled internship course and may result in a delay in completing the program of study or dismissal from the program. Students who fail to comply will be subject to administrative withdrawal.

Criminal History

A student with a conviction or "incident" showing on their Criminal History Record may not be eligible to participate in the internship experience at selected agencies. This may impact the student's ability to successfully complete course and program requirements. This is to inform you that although you are enrolled in the health sciences program, if you are unable to complete the internship requirements you will not be able to satisfy the degree requirements for the health sciences program.

Dress Code and Health Science Uniform

All students while on Hampton University School of Nursing premises (classroom and lab settings), are required to wear dark gray scrubs and appropriate identification starting with the first health sciences course. On days that students are required to wear professional dress, students must adhere to the University's dress code for professional dress.

Progression and Retention in Health Sciences

1. Complete all courses in the sequence outlined in the published curriculum. All 100 and 200 level courses must be completed prior to beginning the 300 level courses in the curriculum, etc..
2. All math (including PSY 346), science, health science, nursing, business, and pharmacy courses must be passed with a grade of "C" or higher.
3. Remain eligible to meet the clinical clearance requirements (see Clinical Clearance requirements). All clinical clearance requirements must remain current from May 1st of each academic year to ensure eligibility for the health sciences internship course. Students who do not meet all clinical clearance requirements will be administratively withdrawn from the internship course by the School of Nursing Administration.
4. An incomplete (I) grade indicates that a student has not completed all coursework required for a grade; students are allowed up to one academic year to complete the work. The incomplete grade converts to an "F" if the coursework is not completed within a year. Students may not progress to the next course if it is a prerequisite for another course. A grade of "I" indicates the student has maintained a passing average, but for reasons beyond his or her control, some specific item such as an examination, a report, a notebook, or an experiment has not been completed. The student holding a grade of "I" is responsible for taking the initiative in arranging with the instructor for changing the grade.

Dismissal in Health Sciences

1. A student whose behavior violates the University Code of Conduct will be dismissed from the School of Nursing.
2. Students with a positive drug screen not attributed to prescription medications will be dismissed from the health science program and referred to the office of the Vice President of Student Affairs (refer to Hampton University's Official Student Handbook policy on drugs and narcotics use).

B.S. in Health Sciences—Community Health Promotion (Concentration)

Freshman Year	Semester	1st	2nd
Communication 103		-	3
English 101-102		3	3
General Biology 105 or HIGHER		-	4
General Chemistry 101 or HIGHER		4	-
History 106		3	-
Humanities 201		-	3
Math 110 or HIGHER		3	-
PED (any)		-	1

Psychology 203		-	3
Sociology 205		3	-
University 101		1	-
Total		**17**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Computer Science 120		3	-
Humanities 202		-	3
Math 117 or Recommended Elective-3		-	3
Math 205 or Psychology 346		3	-
Natural Science 200 level or HIGHER		4	4
Health Science 105 or NUR 105 or HEA 200		2	-
Health Science 202 or NUR 202		-	2
Health Science 203		2	-
Health Science 217 or NUR 217		-	2
Health Science 221 or NUR 221		2	-
Health Science 321		-	3
Total		**16**	**17**
Junior Year	**Semester**	**1st**	**2nd**
Health Education 203 or Free Elective		3	-
Health Science 307		3	-
Health Science 320		3	-
Health Science 330		3	-
Marketing 305		-	3
Psychology 311		-	3
Sociology 314		-	3
Health Science 300		-	3
Health Science 318		-	3
Total		**12**	**15**
Senior Year	**Semester**	**1st**	**2nd**
Health Education 441or HSC 400		-	3
Leadership 302		2	-
Management 323		3	-
Pharmacy 587		-	2
Health Science 401		4	-
Health Science 411		3	-
Health Science 412		-	2
Health Science 499		-	4
Free (unrestricted) Elective		-	3
Total		**12**	**14**
Total Credits Required for Graduation			**120**

Health Sciences: B.S. in Health Sciences – Policy & Administration (Concentration)

Freshman Year	**Semester**	**1st**	**2nd**
Communication 103		-	3
English 101-102		3	3
General Biology 105 or HIGHER		-	4
General Chemistry 101 or 201		4	-
History 106		3	-
Humanities 201		-	3
Math 110 or HIGHER		3	-
PED (any)		-	1
Psychology 203		-	3
Sociology 205		3	-
University 101		1	-
Total		**17**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Computer Science 120		3	-
Humanities 202		-	3
Math 117 or Recommended Elective-3		-	3
Math 205 or Psychology 346		3	-
Natural Science 200 level or HIGHER		4	4
Health Science 105 or NUR 105 or HEA 200		2	-
Health Science 203		2	-
Health Science 221		2	-
Health Science 222		-	3
Psychology 311		-	3
Total		**16**	**16**
Junior Year	**Semester**	**1st**	**2nd**
Accounting 203 or MBA 201		3	-
Health Education 203 or Free Elective-3		-	3
Marketing 305		-	3
Management 301		3	-
Health Science 224		3	-
Health Science 300		-	3
Health Science 318		3	-
Health Science 319		3	-
Health Science 323		-	3
Health Science 325		-	3
Total		**15**	**15**
Senior Year	**Semester**	**1st**	**2nd**
Management 323		3	-
Management 400		-	3
Health Science 410		3	-
Health Science 411		3	-
Health Science 412		-	2
Health Science 425		3	-
Health Science 499		-	4
Free (unrestricted) Elective		-	3
Total		**12**	**12**
Total Credits Required for Graduation			**120**

Gerontology Minor

The School of Nursing offers the minor in Gerontology for students interested in expanding their educational training. Completion of a minor in Gerontology includes the completion of 18 credit hours in the study of the aging processes. This encompasses the physical, mental, and social changes in people as they age. The gerontology minor consists of six (6) core courses with the culmination of an Internship.

Requirements

Students must submit the change of major form to the Program Coordinator of the Gerontology program and/or the Chairperson of the Department of Undergraduate Nursing Education. Students must pass all minor courses with a grade of C or higher. The course sequence is listed below:

Gerontology Minor

Sophomore Year	**Semester**	**1st**	**2nd**
Gerontology 201		3	-
Gerontology 202		-	2
Total		**3**	**2**
Junior Year	**Semester**	**1st**	**2nd**
Gerontology 301		3	-
Gerontology 302		-	3
Total		**3**	**3**
Senior Year	**Semester**	**1st**	**2nd**
Gerontology 400		3	-
Gerontology 499		-	4
Total		**3**	**4**
Total Credits Required for Graduation			**18**

School of Pharmacy

Bachelor of Science (B.S.) in Pharmaceutical Science

The School of Pharmacy offers the B.S. Degree in Pharmaceutical Science that includes matriculation into one of two tracks: an Industry track or a Pre-Pharmacy track.

Industry Track

Based on the projected growth and demand for skilled labor, the Industry Track provides students with foundational training for careers in the pharmaceutical industry, sales, marketing, regulatory affairs, or research. Also, it prepares students for graduate studies in the pharmaceutical, biomedical, and basic sciences, or admission into graduate professional education programs.

In addition to the didactic coursework, Industry Track students will be required to complete a summer Research Externship experience and present a report of research findings or learning outcomes to departmental faculty and advisors during the 0-credit hour Senior Research Capstone seminar series.

Pre-Pharmacy Track

Students seeking admission into the School of Pharmacy professional Doctor of Pharmacy Degree program shall follow the Pre-Pharmacy Track. However, enrollment in the Pre-Pharmacy Track does not guarantee admission into the professional Doctor of Pharmacy Degree program. All students must meet the admission requirements as established by the School of Pharmacy and must submit an application for admission and participate in the student candidate interview process. Pre-Pharmacy Track students admitted into the professional Doctor of Pharmacy program are eligible to be awarded the Bachelor of Science (B.S.) Upon completing the required coursework after the Spring Semester of the first professional (PI) year. Students receive the Doctor of Pharmacy (Pharm.D.) degree upon completing all the School of Pharmacy requirements.

In the Pre-Pharmacy Track, all courses in the Senior year of the Pre-Pharmacy Track correspond with all required courses offered in the first professional year (PI) of the Doctor of Pharmacy program, with the addition of a 0-credit hour Research Seminar course in both the Fall and Spring Semesters. All additional proposed coursework for the Industry Track, including the summer Research Externship, is required for the Pre-Pharmacy Track, except for the General Pharmacology I-II course series and the Elective course in the senior year.

Doctor of Pharmacy (Pharm.D.)

The School of Pharmacy offers an innovative professional program leading to the Doctor of Pharmacy (Pharm.D.) degree embedded with the original concept of Pharmaceutical Care that has evolved into the standardized Pharmacist Patient Care Process (PPCP). The PPCP employs a patient-centered approach in collaboration with other providers on the health care team to optimize patient health and medication outcomes. Pharmaceutical Care encompasses the full range of skills, knowledge, abilities, and empathy, integrated to provide appropriate medication services to patients. The patient care process's principal goal is to achieve accessible, high quality, and cost-effective healthcare with definitive outcomes from medication use that improve patients' quality of life. These outcomes may include: (1) cure of a disease; (2) elimination or reduction of symptoms; (3) arresting or slowing a disease process; (4) prevention of disease; (5) diagnosis of disease; and (6) desired alterations in physiological processes, all with minimum risk to patients. The curriculum in pharmacy equips the student to understand many aspects of medicine. It emphasizes knowledge and practice in preventive medicine, primary care for the pediatric, adult, and geriatric populations. The curriculum also covers growing healthcare sectors such as long-term care, home health care, hospice care, and transitions of care. Clinical training sites include both traditional and non-traditional sites, including medically underserved communities. Coupled with the diversity of the basic educational requirements, the curriculum produces a graduate whose personal ethics and professional skills allow for full participation and prosperity in the medical community.

The Doctor of Pharmacy Program requires six to seven calendar years for completion: two to three years of pre-professional education followed by four years of professional pharmacy education. Students have the option of choosing the Two-Year Track or Three-Year Track Pre-Professional Curriculum. Both pre-professional curricula encompass general education requirements, including mathematics and science courses, totaling 83 or 95 semester hours, respectively. Students are allowed to transfer the required pre-professional pharmacy courses from an accredited college or university. The content and comprehensiveness of the course should match with the comparable course offered at Hampton University. The final analysis of the transferability of a course rests with Hampton University.

Accreditation

The Accreditation Council for Pharmacy Education (ACPE) accredits Doctor of Pharmacy programs in the United States.

National Licensure Eligibility

All graduates of the Doctor of Pharmacy program are eligible for licensure application to take the North American Pharmacist Licensure Examination (NAPLEX) to practice in the pharmacy profession. Graduates are also eligible to apply for the Multistate Pharmacy Jurisprudence Examination (MPJE) as well as other state examinations. The MPJE serves as the pharmacy law examination in participating jurisdictions and is required for licensure to practice as a pharmacist.

Freshman (Pre-Professional) Admission

Students may apply for admission into the pre-pharmacy program directly from high school and must complete a minimum of two years of prerequisite coursework. Applicants who meet the

requirements for admission to the University are eligible to be considered for the School of Pharmacy pre-professional program. Courses in the pre-pharmacy curriculum include general and organic chemistry, biology, physics, calculus, English, speech, sociology, psychology, history, health, and humanities. Advisors within the School of Pharmacy assist pre-pharmacy majors in preparing for entrance into the professional program. The pre-pharmacy program requires the Pharmacy College Admissions Test (PCAT) and a GPA of 2.75 for consideration of an interview to progress from the pre-pharmacy program into the professional level.

Professional Admission

In addition to students applying through the Hampton University Pre-Professional program, students may also complete the prerequisite courses at another institution and transfer into the professional program and complete four years of study leading to the Doctor of Pharmacy degree. In addition to the basic University requirements, students admitted to the professional education program must meet the following admissions criteria:

1. Maintain a minimum overall GPA of 2.75 (inclusive of all colleges and universities attended)
2. Complete all pre-requisite courses or equivalency (appropriately approved) with a grade of "C" (2.00) or better in each course.
3. Submit the following: a University application with the required fee, School of Pharmacy application supplement, two letters of recommendation, official transcripts from all institutions of higher education previously attended, and a written statement of professional goals.
4. Submit the PCAT score by the deadline before the anticipated year of admission. Prospective students (both Hampton University Pre-Professional students and Transfer students) applying to the professional program will need to have a minimum preferred composite percentile rank (PR) of 50. Note that having a score lower than 50 does not disqualify a prospective student from applying to the program or being interviewed. However, all other factors being the same, an applicant will have a much stronger chance of being accepted into the program if the composite PR is higher than 50. Students may retake the PCAT any number of times, and the highest PCAT composite percentile rank will apply for consideration of admission. However, every prospective student must submit a copy of the preliminary score report made available to test takers immediately following their PCAT exam. A student must also request sending an official copy of their PCAT results to the School of Pharmacy for verification purposes.
5. Applicants whose native language is not English must take the Test of English as a Foreign Language (TOEFL) if they have less than 30 transferable college credits.

The School invites the most competitive applicants for an interview. Completion of an application and meeting requirements does NOT guarantee an interview or admission, which applies for both Hampton University pre-professional students as well as transfer students.

Standards For Technical Requirements of the Pharmacy Curriculum

Pharmacy students must possess skills and abilities that allow them to complete the curriculum and practice the profession of pharmacy. Hampton University's School of Pharmacy has an ethical responsibility for patient safety for whom the student will contact as a student and for whom the graduate will serve during his/her career. Patient safety is the guiding principle under which the School establishes requirements for matriculating students and graduates' physical, cognitive, and emotional capabilities. The technical standards include observational communications, motor, intellectual-conceptual (integrative, and qualitative) behavioral and social skills and abilities.

The University is committed to enabling students with disabilities to complete the course of study by providing reasonable accommodations. However, some accommodations cannot be made because they are unreasonable and ultimately jeopardize patient safety. **For example, using a trained intermediary is not acceptable because of the intermediary's inherent use of the observation and selection skills to judge and assess rather than those of the pharmacy student.**

The significant points are further delineated below.

Observation. The student must be able to observe and interpret the presented information visually. This standard necessitates the functional use of vision, hearing, and somatic senses.

Communication. The student must communicate effectively and appropriately with patients, caregivers, faculty/ staff, and the health care team members. These skills include the appropriate use of spoken and written English: hearing, reading, and interpreting at a level adequate for the timely delivery of information.

Motor. The student must have sufficient motor function and skills necessary to perform a task in the training and practice of pharmacy. Examples of such tasks may include the compounding of medicinals, administration of drugs, or basic cardiac life support provision. Such actions require the coordination of gross and fine muscular movements, equilibrium, and functional use of the senses.

Students should perform a critical self-analysis to ascertain the degree of compliance with the technical requirements. Evidence of non-compliance should be communicated to the Office of Student Affairs of the School of Pharmacy immediately.

Additional Student Expenses

Throughout the course of study, students will need to bear expenses for several activities that are a required part of the curriculum. These expenses include certifications and training, background checks, access to proprietary software, and resources required as a part of the course of study and preparatory material for the NAPLEX. The School shall provide a list of projected expenses for the professional program to students before matriculation. Students are encouraged to plan and ensure that they have the funds ready to bear the costs related to these required activities.

Scholarships/Financial Assistance

The School may award scholarships to qualifying students through the University Scholarship Program. These include Presidential Scholars, Academic Achievers, and various departmental scholarships obtained through grants, projects, cooperative education (internships), Army and Navy ROTC, government, industry, and organizations. Other financial assistance information is available through the University Financial Aid Office (Pell Grant, work-study, Federal Direct Loan Programs, etc.).

You may obtain application forms and information regarding admissions to the Pre-Professional Pharmacy Program by writing to the Office of Admissions, Hampton University, Hampton, VA 23668, or calling (757) 727-5328. You may obtain information regarding the professional program by accessing the School of Pharmacy website at http://wp.hamptonu.edu/pharmacy/doctor-of-pharmacy-pharm-d-hampton-university-school-of-pharmacy/. Non-Hampton University pre-pharmacy students must download applications and forms and mail them to the following address:

Hampton University
School of Pharmacy
Office of Student Affairs/Admissions
Hampton, VA 23668

Curriculum Outline – B.S. Pharmaceutical Science – Industry Track

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101 Written Communication I		3	-
MAT 117 Precalculus Mathematics I		3	-
BIO 105 Introduction to Biology 1		4	-
UNV 101 University 101: The Individual and Life		1	-
CHE 201 General Chemistry and Qualitative Analysis		4	-
ENG 102 Written Communication II		-	3
HEA 200 PED 205 Health Education or any 2 CH Physical Education Course		-	2
BIO 106 Introduction to Biology II		-	4
MAT 130 Calculus		-	3
CHE 202 General Chemistry and Qualitative Analysis II		-	4
Totals		**15**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
CHE 301 General Organic Chemistry I		4	-
BIO 304 Microbiology		4	-
PHY 201 Introductory Physics I		4	-
PHY 215 Introductory Physics I Lab		1	-
COM 103 Oral Communication		3	-
CHE 302 General Organic Chemistry II		-	4
HIS 106 World Civilizations II		-	3
HUM 201 Humanities I		-	3
Social Science Elective - SOC 205, PSY 203 or PSY 308		-	3
BIO 305 Principles of Heredity		-	3
Totals		**16**	**16**

Junior Year	**Semester**	**1st**	**2nd**
BIO 224 Human Anatomy & Physiology I w/Lab		4	-
PHA 300 Quantitative Lab Techniques		2	-
NUR 320 Scientific Writing for Health Professionals		3	-
MAT 205 Introduction to Statistics		3	-
BIO 225 Human Anatomy & Physiology II w/Lab		-	4
BIO 544 Medical Microbiology		-	3
PHA 312 Drug Discovery, Design, and Development		-	3
PHA 317 Pharmaceutical Analysis		-	3
PHA 416 Biostatistics and Research Methods		-	3
PHA 318 Responsible Conduct of Research		-	1
Totals		**12**	**17**

Summer Semester

PHA 399 Research Externship ..... 1 credit

Senior Year	**Semester**	**1st**	**2nd**
PHA 311 Physiologic Biochemistry		3	-
PHA 371 Biopharmaceutics I		3	-
PHA 373 Biopharmaceutics I Lab		1	-
PHA XXX Pharmacy elective		2	-
PHA 433 General Pharmacology I		3	-
PHA 499 Research Capstone		0	-
PHA 314 Medicinal Chemistry I		-	4
PHA 310 Medical Immunology		-	2
PHA 372 Biopharmaceutics II		-	3
PHA 374 Biopharmaceutics II Lab		-	1
PHA 316 Principles of Drug Information		-	3
PHA 434 General Pharmacology II		-	3
PHA 499 Research Capstone		-	0
Totals		**12**	**16**

Total Credit Hours: 120

[1]Students may elect to take Calculus I & II (MAT 151-152) instead of Precalculus Mathematics I (MAT 117) and MAT 130. Note that Precalculus Mathematics II (MAT 118), (MAT 117) is the prerequisite to Calculus I.

[2]Students may elect to take Introduction to Sociology (SOC 205), Introduction to Psychology (PSY 203), or Physiological Psychology (PSY 308). Note that Introduction to Psychology (PSY 203) is the prerequisite to Physiological Psychology.

[3]Students may elect to take any of the Humanities courses from the list of approved Humanities electives. In addition to the two required courses, select one course from the following: HIS 105,107; ART 200, 305, 306, or 407; ENG 214, 215, 323, 328, or 329; Foreign Language (above 202); HUM 202; MUS 200, 201, 202 or 305; Philosophy 203, 20, 210, 301, 304, or 305; THE 120, 205, 206.

[4]Students may elect to take Introduction to Computers (CSC 120), Principles of Marketing (MKT 305), or Sales Management (MKT 328). Note that Principles of Marketing (MKT 305) is a prerequisite to Sales Management.

Curriculum Outline – B.S Pharmaceutical Science – Pre-Pharmacy Track

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101 Written Communication I		3	-
MAT 117 Precalculus Mathematics I		3	-
BIO 105 Introduction to Biology 1		4	-
UNV 101 University 101: The Individual and Life		1	-
CHE 201 General Chemistry and Qualitative Analysis		4	-
ENG 102 Written Communication II		-	3
BIO 106 Introduction to Biology II		-	4
MAT 130 Calculus		-	3
CHE 202 General Chemistry and Qualitative Analysis II		-	4
Totals		**15**	**14**

Sophomore Year	Semester	1st	2nd
CHE 301 General Organic Chemistry I		4	-
BIO 304 Microbiology		4	-
PHY 201 Introductory Physics I		4	-
PHY 215 Introductory Physics I Lab		1	-
COM 103 Oral Communication		3	-
CHE 302 General Organic Chemistry II		-	4
HUM 201 Humanities I		-	3
Social Science Elective - SOC 205, PSY 203 or PSY 308		-	3
BIO 305 Principles of Heredity		-	3
Totals		**16**	**13**

Junior Year	Semester	1st	2nd
BIO 224 Human Anatomy & Physiology I w/Lab		4	-
PHA 300 Quantitative Lab Techniques		2	-
NUR 320 Scientific Writing for Health Professionals		3	-
MAT 205 Introduction to Statistics		3	-
BIO 225 Human Anatomy & Physiology II w/Lab		-	4
BIO 544 Medical Microbiology		-	3
PHA 312 Drug Discovery, Design, and Development		-	3
PHA 317 Pharmaceutical Analysis		-	3
PHA 318 Responsible Conduct of Research		-	1
Totals		**12**	**14**

Summer Semester

PHA 399 Research Externship ..... 1 credit

Senior Year	Semester	1st	2nd
PHA 303 Introduction to the Practice of Pharmacy		2	-
PHA 305 Applied Human Physiology		3	-
PHA 307 Principles of Pharmacology		1	-
PHA 311 Physiologic Biochemistry		3	-
PHA 371 Biopharmaceutics I		3	-
PHA 373 Biopharmaceutics I Lab		1	-
PHA 319 Pharmaceutical Calculations I		2	-
PHA 315 Pharmacists' Patient Care Process (PPCP) I		3	-
PHA 499 Research Capstone		0	-
PHA 314 Medicinal Chemistry I		-	4
PHA 308 Pharmacology & Pathophysiology I		-	4
PHA 310 Medical Immunology		-	2
PHA 372 Biopharmaceutics II		-	3
PHA 374 Biopharmaceutics II Lab		-	1
PHA 316 Principles of Drug Information		-	3
PHA 319 Pharmaceutical Calculations II		-	1
PHA 499 Research Capstone		-	0
Totals		**18**	**16**
Total Credit Hours:			**120**

[1]Students may elect to take Calculus I & II (MAT 151-152) instead of Precalculus Mathematics I (MAT 117) and MAT 130. Note that Precalculus Mathematics II (MAT 118), (MAT 117) is the prerequisite to Calculus I.

[2]Students may elect to take Introduction to Sociology (SOC 205), Introduction to Psychology (PSY 203), or Physiological Psychology (PSY 308). Note that Introduction to Psychology (PSY 203) is the prerequisite to Physiological Psychology

Curriculum Outline – Doctor of Pharmacy – Three Year Pre-Professional Curriculum

Freshman Year	Semester	1st	2nd
ENG 101 Written Communication I		3	-
MAT 117 Precalculus Mathematics I		3	-
BIO 105 Introduction to Biology 1		4	-
UNV 101 University 101: The Individual and Life		1	-
CHE 201 General Chemistry and Qualitative Analysis		4	-
ENG 102 Written Communication II		-	3
HEA 200 Health Education or any 2 CH Physical Education Course		-	2
BIO 106 Introduction to Biology II		-	4
MAT 130 Calculus		-	3
CHE 202 General Chemistry and Qualitative Analysis II		-	4
Totals		**15**	**16**

Sophomore Year	Semester	1st	2nd
CHE 301 General Organic Chemistry I		4	-
BIO 304 Microbiology		4	-
HUM 201 Humanities I		3	-
Social Science Elective - SOC 205, PSY 203 or PSY 308		3	-
COM 103 Oral Communication		3	-
CHE 302 General Organic Chemistry II		-	4
HIS 106 World Civilizations II		-	3
HUM 202 Humanities II or any approved Humanities elective- ECO 201		-	3
ECO 202 Macro or Microeconomics		-	3
BIO 305 Principles of Heredity		-	3
Totals		**17**	**16**

Junior Year	Semester	1st	2nd
BIO 302 Human Anatomy w/ Lab		4	-
NUR 221 Medical Terminology		2	-
NUR 320 Scientific Writing for Health Professionals		3	-
PHY 201 Physics I		4	-
PHY 215 Physics I Lab		1	
MAT 205 Statistics		3	
BIO 336 Human Physiology w/Lab		-	3
BIO 544 Medical Microbiology		-	3
NUR 224 Cultural Assessment for Health Professionals		-	3
Math/Science elective		-	5
Totals		**17**	**14**

[1]HU students may elect to take Calculus I & II (MAT 151-152) instead of MAT 117 and MAT 130. Note that Precalculus Mathematics II (MAT 118), (MAT 117) is the prerequisite to Calculus I (MAT 151).

[2]HU students may elect to take any of the Humanities courses from the list of approved Humanities electives. In addition to the required course, select one course from the following: HIS 105,107; ART 200, 305, 306, or 407; ENG 214, 215, 323, 328, or 329; Foreign Language (above 202); HUM 202; MUS 200, 201, 202 or 305; Philosophy 203, 20, 210, 301, 304, or 305; THE 120, 205, 206

[3]HU students may take any of the following Math/Science elective courses: We highly recommend Physics II (PHY 202) With Physics II Lab (PHY 216) & Molecular Biology (BIO 312) as electives. Also: Anatomy, Physiology & Development Electives: BIO 301, 302, 308, 336, 409, 411, 503, 506, 510, 513, 546. Genetics/Cellular & Molecular Biology Electives: BIO 309, 311, 312, 404, 405, 406, 410, 423, 424, 430, 502, 512. Other Electives: BIO 110, 211, 391, 407, 422 A&B, 508, 514, 515, 524, 541, 542, 543, 501, 520, 523; CHE 150, 303-304, 403; NUR 220, 231, 323; MAT 151-152 (only if you have not already taken these two courses in lieu of MAT 117 and MAT 130 as indicated in comment "1" above)

Other Notes:

NUR 221 CORRESPONDS TO THE FREE ELECTIVE IN SENIOR YEAR OF THE PREMEDICAL CURRICULUM

MICRO/MACRO *CORRESPONDS TO SOCIAL AND BEHAVIORAL SCIENCES*

MAT 117 PREREQUISITE: MAT 105 OR BY PLACEMENT

MAT 130 PREREQUISITE: MAT 117 OR BY PLACEMENT

BIO 302 PREREQUISITE: BIO 220 OR CONSENT OF DEPARTMENT CHAIR.

BIO 305 PREREQUISITES: BIO 210 OR 220, OR CONSENT OF INSTRUCTOR.

Curriculum Outline – Doctor of Pharmacy – Two Year Pre-Professional Curriculum

Freshman Year	**Semester**	**1st**	**2nd**
ENG 101 Written Communication I		3	-
MAT 117 Precalculus Mathematics I		3	-
BIO 105 Introduction to Biology 1		4	-
UNV 101 University 101: The Individual and Life		1	-
CHE 201 General Chemistry and Qualitative Analysis		4	-
HEA 200 Health		2	-
ENG 102 Written Communication II		-	3
COM 203 Speech		-	3
HIS 106 World Civilizations II		-	3
BIO 106 Introduction to Biology II		-	4
CHE 202 General Chemistry and Qualitative Analysis II		-	4
Totals		**17**	**17**

Summer Semester

HUM 201 Humanities I (3 credits)

MAT 130 Calculus (3 credits)

Sophomore Year	**Semester**	**1st**	**2nd**
CHE 301 General Organic Chemistry I		4	-
PHY 201 Physics I		4	-
PHY 215 Physics I Lab		1	-
BIO 302 Human Anatomy w/Lab		4	-
BIO 304 Microbiology		4	-
CHE 302 General Organic Chemistry II		-	4
BIO 336 Human Physiology w/Lab		-	4
MAT 205 Statistics		-	3
BIO 544 Medical Microbiology		-	3
BIO 305 Principles of Heredity		-	3
Totals		**17**	**17**

Summer Semester

Humanities elective - HU Online (3 credits)

Social Science elective [SOC205/PSY203/ECO201/ECO202] (3 credits)

**ADDITIONAL REQUIREMENTS FOR ADMISSION INTO THE PROFESSIONAL PROGRAM:*

MUST OBTAIN A PREFERRED PCAT COMPOSITE PERCENTILE OF 50 OF HIGHER.

MUST OBTAIN A CUMULATIVE GRADE POINT AVERAGE OF 2.75 OR HIGHER.

MUST COMPLETE THE ADVANCED PLACEMENT PROGRAM WITHIN A MAXIMUM OF THREE YEARS.

MUST NOT HAVE MORE THAN FOUR FAILING GRADES (LESS THAN C) IN COURSES WITHIN THE CURRICULUM.

Curriculum Outline – Doctor of Pharmacy – Professional Program (Begins Fall 2019)

First Professional Year	**Semester**	**1st**	**2nd**
PHA 303 Introduction to the Practice of Pharmacy		2	-
PHA 305 Applied Human Physiology		3	-
PHA 307 Principles of Pharmacology		1	-
PHA 311 Physiologic Biochemistry		3	-
PHA 371 Biopharmaceutics I		3	-
PHA 373 Biopharmaceutics I Lab		1	-
PHA 319 Pharmaceutical Calculations I		2	-
PHA 315 Pharmacists' Patient Care Process (PPCP) I		3	-
PHA 101 Pharmacy Forum		0	-
PHA 314 Medicinal Chemistry I		-	4
PHA 308 Pharmacology & Pathophysiology I		-	4
PHA 310 Medical Immunology		-	2
PHA 372 Biopharmaceutics II		-	3
PHA 374 Biopharmaceutics II Lab		-	1
PHA 326 Pharmaceutical Calculations II		-	1
PHA 316 Principles of Drug Information		-	3
PHA 101 Pharmacy Forum		-	0
Totals		**18**	**18**

Summer Semester

PHA 370 IPPE (Community) (1 credit)

Second Professional Year	**Semester**	**1st**	**2nd**
PHA 413 Medicinal Chemistry II		4	-
PHA 405 Pharmacology & Pathophysiology II		5	-
PHA 461 Pharmacokinetics		4	-
PHA 462 Pharmacokinetics Lab		1	-
PHA 415 Pharmacists' Patient Care Process (PPCP) II		3	-
PHA 417 PPCP Skills Lab		1	-
PHA 101 Pharmacy Forum		0	-
PHA 406 Pharmacology & Pathophysiology III		-	4
PHA 410 Therapeutics I		-	3
PHA 412 Therapeutics II		-	3
PHA 418 Applied Therapeutics Lab I		-	1
PHA 434 Healthcare Administration I		-	2
PHA 416 Biostatistics and Research Methods		-	3
PHA 420 Principles of Toxicology		-	2
PHA 101 Pharmacy Forum		-	0
Totals		**18**	**18**

Summer Semester

PHA 470 IPPE II (Institutional) (1 credit)

Third Professional Year	**Semester**	**1st**	**2nd**
PHA 511 Therapeutics III		4	-
PHA 513 Therapeutics IV		4	-
PHA 517 Applied Therapeutics Lab II		1	-
PHA 501 Self-Care and Non-Prescription Therapies		3	-
PHA 545 Healthcare Administration II		3	-
Elective		2	-
PHA 570 IPPE III (Elective)		1*	-
PHA 101 Pharmacy Forum		0	-
PHA 516 Therapeutics V		-	3
PHA 518 Therapeutics VI		-	3
PHA 520 Applied Therapeutics Lab III		-	1
PHA 574 Pharmacy Practice Laboratory		-	4
PHA 534 Pharmacogenomics		-	2

PHA 582 Pharmacy Law/Ethics	-	2
Elective	-	2
PHA 570 IPPE III (Elective)	-	1*
PHA 101 Pharmacy Forum	-	0
Totals	**17/18***	**17/18***

Summer Semester

APPE I	(4 credits)
APPE I	(4 credits)
PHA 650 Seminar I	(1 credit)

Fourth Professional Year	**Semester**	**1st**	**2nd**
APPE III		4	-
APPE IV		4	-
APPE V		4	-
PHA 651 Seminar II		1	-
APPE VI		-	4
APPE VII		-	4
APPE VIII		-	4
PHA 652 Seminar III		-	1
Totals		**13**	**13**

**Students will take PHA 570 in the Fall OR Spring semester; the additional credit hour will be charged for the semester within which the course is taken.*

APPE Rotations

Course Number	**Title**	**Credit Hours**
[1]PHA 670	Community	4
[1]PHA 671	Institutional	4
[2]PHA 675	Academic Pharmacy	4
[2]PHA 680	Research I	4
[2]PHA 681	Research II	4
[2]PHA 683	Geriatrics	4
[2]PHA 684	Special Interest	4
[2]PHA 685	Administration/Management	4
[1]PHA 690	Internal Medicine	4
[1]PHA 691	Ambulatory Care	4
[2]PHA 693	Pediatrics	4
[2]PHA 694	Psychiatry	4
[2]PHA 695	Drug Information	4
[2]PHA 696	Special Interest	4
[2]PHA 697	Special Interest	4
[2]PHA 698	Special Interest	4
[2]PHA 699	Advanced Internal Medicine	4

[1]Required

[2]Select four APPE courses from PHA 675, 680, 681, 683, 684, 685, 693, 694, 695, 696, 697, 698, 699

School of Science

The School of Science is comprised of the Division of Biological, Chemical and Environmental Sciences, the Division of Health Sciences and the Division of Mathematical and Physical Sciences. Bachelor's degree programs are offered in Biochemistry, Biology, Chemistry, Communicative Sciences and Disorders, Computer Science, Computer Information Systems, Marine and Environmental Science, Mathematics and Physics. Master's degree programs are offered in Applied Mathematics, Atmospheric Science, Biology, Chemistry, Communicative Sciences and Disorders, Computer Science, Cyber Security - Computer Science, Medical Science, Physics and Planetary Science. An Environmental Science concentration is provided through the biology and chemistry graduate programs. Five-year Master's in Teaching programs are offered in collaboration with the Department of Education, and are presented in the section under the College of Education and Human Development in this Catalog. The Doctor of Philosophy (Ph. D.) degree in Atmospheric Science, Physics, and Planetary Science; and the Doctor of Physical Therapy (D.P.T.) degree programs are available to highly qualified students.

The School of Science is committed to achieving excellence in its educational programs. The programs offered:

1. provide formalized instructional programs for science majors;
2. offer broad scientific research experiences to complement the instructional program;
3. provide education in the basic sciences and mathematics for all University students;
4. provide technical training to prospective commissioned officers in the United States Navy, Marine Corps or Navy Nurse Corps;
5. offer didactic and clinical experiences for professional programs in Communicative Disorders and Physical Therapy; and
6. offer outreach experiences and consumer services to the nearby community.

Accreditation

The programs in Communicative Sciences and Disorders, Computer Science, Naval Science and Physical Therapy have professional accreditation as stated in the program description. The five-year Master in Teaching programs are approved by the Department of Education of the Commonwealth of Virginia, and accredited by the Council for the Accreditation of Educator Preparation. The American Chemical Society approves the Chemistry program.

Admissions

Prospective majors in the School of Science must adhere to the general procedures and criteria for admission established by the University for graduate or undergraduate students. Additional criteria for admission are described in the specific programs of study. Mathematics placement is based on the student's pre-college academic preparation. Students who do not begin at the appropriate level of mathematics will require additional time to complete their chosen program of study.

Financial Aid

Students applying for financial aid must adhere to the criteria and procedures described in the section on STUDENT FINANCIAL AID in this Catalog. Scholarships are available to qualifying students through the University Scholarship Program. These include Presidential Scholars, Academic Achievers and various departmental scholarships as obtained through grants, projects, cooperative education (internships), Army and Navy ROTC, government, industry and organizations.

Minimum Grade Requirements

In addition to the minimum grade requirements established by Hampton University, all majors and minors within the School of Science must pass all required courses offered within the School of Science with a grade of "C" or better in order to satisfy degree requirements. Minimum grade requirements for graduate students are addressed earlier in this Catalog.

General Program Requirements

Course requirements for academic programs within the School of Science can be modified only by special permission. All course adjustments, such as substitution or waiver of major or related area courses, require recommendation by the department chairperson and approval by the School Dean. Adjustments in General Education require additional approval at the level of the Provost. The General Education curriculum is applicable to all undergraduate major disciplines in the School of Science.

Facilities

Programs in the School of Science are housed in eleven buildings: Academy Building, Armstrong-Slater Hall, Dupont Hall, Marine Science Building, Olin Engineering Building, Phenix Hall, Science and Technology Building, Turner Hall and four research buildings.

The Department of Computer Science maintains its own Computer Center. The Center consists of six major laboratories and a well-equipped server center. The laboratories include a Robotics Lab, Information Assurance and Cyber Security Lab, Innovation Lab, Upperclassmen Lab, Freshmen Lab and a Computer Literacy Lab. The Freshmen and Upperclassmen Laboratories are available to students from 6:00 a.m. to 12:00 midnight daily including weekends.

The Integrated Learning Environment incorporates three computer labs, housed in the departments of mathematics, biology, and chemistry. Each lab has between 15 and 20 PCs equipped with the standard MS windows operating system, as well as some software to support courses. The Hampton University First in the World Partnership (HUFITWP) Project, funded through the U.S. Department of Education for $3.5 million over 4 years, established several com-

puter labs and electronic classrooms on campus. On the second floor of the William & Norma Harvey Library is the Mathematics Emporium which contains 45 state-of- the-art desktops. The emporium also includes a room for tutoring as well as a conference room.

Each of the departments participating in the HUFITWP project houses its own satellite computer lab for students; Mathematics has 20 desktops and Computer Science has eight (8) desktops in Science and Technology Building, Biology has 10 laptops located in DuPont Hall, Chemistry has 15 desktops in Turner Hall, Marine and Environmental Science has 6 laptops in its building. Finally, Engineering has 10 desktops located in Olin Building and Physics has 5 desktops in the Biomedical Research Building. Additionally, funded through this grant there are three electronic classrooms, all located in Science and Technology. In one classroom there are 26 desktops; 36 in a second and 30 in a third.

The Speech, Language and Hearing Clinic provides complete and thorough diagnostic and therapeutic services for speech, language and hearing problems. The clinic is equipped with six therapy rooms for speech and language therapy with facilities for observation, and two IAC hearing test suites with facilities for complete audiological testing.

The Department of Physical Therapy has well equipped laboratories for faculty research and the professional training of students. Memoranda of Understanding with over one hundred off-campus sites provide practical training in the clinical environment.

Active research programs are offered in the departments of Atmospheric and Planetary Sciences, Biological Sciences, Chemistry and Biochemistry, Computer Science, Marine and Environmental Science, Mathematics, Physical Therapy and Physics. Students are encouraged to participate in research in the various laboratories and research centers.

The Department of Chemistry and Biochemistry is housed in Turner Hall. It has eight research and instrumentation laboratories. The laboratories house instrumentation such as a mass spectrometer, atomic absorption spectrometer, Fourier Transform Infrared Nuclear magnetic resonance, and other equipment to support undergraduate as well as graduate student research.

The Department of Marine and Environmental Sciences, housed in the Marine Science Building has two large laboratories, one microbiology preparation room, and a diagnostic/culture laboratory. Adjacent to the building is a docking facility for boats and the research vessel used for fieldwork.

The Department of Biological Sciences, housed in Dupont Hall, has eight teaching laboratories and several research labs, which house a fluorescence microscope, LKB UV/Visible Spectrophotometer, centrifuges, freeze dryer, gel documentation system, carbon dioxide incubator, DNA sequencing apparatus, DNA hybridization chamber, and other research equipment.

The Department of Physics houses laboratories in the Olin building, the Graduate Physics Research Center, The Research II Building, and the Fountain Research Building. The optics and materials program has facilities for laser spectroscopy, bulk crystal growth, and nanomaterial synthesis. The experimental nuclear physics group has labs for advanced detector and software research and development. The theoretical nuclear physics group works in close collaboration with scientists at the nearby Jefferson Lab, and with experimentalists on campus. The Department of Physics has two teaching laboratories, as well as a small computer lab for its undergraduate students.

Special Programs

Academic clubs are described in the section for each departmental program. The Beta Kappa Chi National Scientific Honor Society is open to all science majors who meet the requisite grade point average and number of credit hours in one of the sciences. Eligible students can also join the national honor societies for computer science majors (Upsilon Pi Upsilon) and physics majors (Sigma Pi Sigma). The Pre-Health Program, which is open to all Hampton University students contemplating medical or other health professions, is housed within the School of Science.

Special opportunities that are available for students in the School of Science include research participation, graduate and professional school preparation, and other enrichment and training opportunities. Formal partnerships and collaborations have been formed with many scientific organizations and facilities, such as the Science Museum of Virginia, the Thomas Jefferson National Accelerator Facility, and the National Aeronautics and Space Administration-Langley Research Center (NASA-LaRC), and with research universities and professional schools in health- related areas. Many of these special programs actively engage undergraduate and graduate students in scientific research. These opportunities are made available through individual faculty research grants and contracts, and through several research centers. The research centers include the Center for Atmospheric Science (CAS), the Center for Fusion Research and Training (CFRT), and the Information Assurance and Cyber Security Center (IAC).

Pre-Health Program

The Pre-Health Program Coordinator is responsible for oversight of the Pre-Health Program. The Pre-Health Program at Hampton University is designed to prepare students for admission to post-baccalaureate degree programs in such health fields as Medicine (including Osteopathic medicine), Dentistry, Pharmacy (pharmacy doctorates), Podiatry, Optometry and Physical Therapy. Hampton University has enjoyed a long history in the preparation of undergraduates for entry into the fields indicated above. Many Hampton University graduates have completed post-baccalaureate degrees in health professional fields and are now active practitioners throughout the country. Hampton students who enter post-baccalaureate health degree programs (excluding Nursing and Psychiatry) major in biology (80%), chemistry (19%), and one percent in other disciplines. The curriculum for pre-health education at Hampton University follows the recommendations of health professional schools that are members of the Association of American Medical Colleges (AAMC) and listed in the book, Medical School Admission Requirements. Thus, students who are interested in preparing for health professional schools should pursue a curriculum in a major that would offer the basic science courses in biology, chemistry, mathemat-

ics, physics, sociology and psychology. Acceptance to health professional schools is highly competitive and the student should be prepared to take the appropriate admissions test no later than the second semester of the junior year. The student should complete the basic requirements in biology, chemistry, mathematics, physics, sociology and psychology before attempting the examination. The typical tests include the Medical College Admission Test (MCAT), Dental Aptitude Test (DAT), and the Graduate Record Examination (GRE). Students who participate fully in structured pre-health activities are informed of target dates and other information relevant to applications and schedules of national tests and examinations.

Hampton University faculty are members of the National Association of Advisors for the Health Professions, Inc. (NAAHP), the Southeastern Region Association of Advisors for the Health Professions (SAAHP), the National Association of Minority Medical Educators (NAMME), and the 16-Institution Health Sciences Consortium of North Carolina and Virginia. The School of Science has Memoranda of Understanding for summer enhancement and/or academic year activities with many universities. The School of Science offers special seminars by professional health educators and practitioners, and visitation to selected medical colleges and institutions. Pre-Health students are expected to take advantage of special summer enhancement activities that are scheduled away from the campus. Students are invited to apply for these opportunities at numerous locations throughout the country.

The School of Science implemented a graduate program leading to the Master of Science degree in Medical Science in Fall 2000. The primary purpose of this program is to significantly increase the number of Hampton University graduates and others who matriculate in professional health career programs leading to the MD, DO or DDS degree. This program prepares the graduate student for the arduous task of gaining admittance to professional schools by focusing upon the standardized examinations in the biomedical sciences and upon the courses offered in the first year of a doctoral medical program. The School of Science is dedicated to making Hampton University number one in the placement of our graduates in professional medical and allied health programs and to their success in those professional programs. The master's program has been modeled after highly successful post-baccalaureate programs and with input or commitments from medical schools. Further detail about this program is provided in the Graduate College section of this catalog.

Interdisciplinary Science Center

The Interdisciplinary Science Center offers physical science courses for non-science majors. Each semester three hour courses and four hour courses with a lab are offered. The focus of these courses is to develop scientifically literate citizens who become stewards of their environment. In addition to providing courses for Hampton University undergraduates, the ISC also offers graduate science courses for educators through grant funded initiatives.

Courses offered by the ISC:

- SCI 104 Physical Science and Lab 4 credits in total. Offering 3 sections each semester.
- SCI 102 Intro to Physical Science 3 credits in total. Offering 2 sections each.

Nanoscience Program

The School of Science offers an interdisciplinary minor in nanoscience. Anyone enrolled in an undergraduate degree program at Hampton University will be able to pursue said minor. The program is particularly targeted to majors in the School of Science and School of Engineering and Technology. As such, Biochemistry, Biological Sciences, Chemistry, Computer Science, Engineering, Marine and Environmental Science, Mathematics and Physics majors are strongly encouraged to earn baccalaureate degrees with a minor in nanoscience. The significant overlap of these disciplines on the nanoscale makes it important for students studying this topic to understand nanoscience from an interdisciplinary perspective, which may be used to complement their knowledge in their major field of study and research. The rapidly growing field of nanotechnology serves as an intellectual nexus between core sciences, technology, engineering and math; therefore, students can excel when they develop an interdisciplinary perspective by studying nanoscience. The program encourages students to learn about nanoscience from the perspective of their major and a discipline outside of their major, leading to a curriculum that is truly interdisciplinary in nature. This minor will prepare graduates with sufficient scientific content and experience in nanoscience to pursue interdisciplinary related programs in graduate school or employment.

The minor requires a minimum of twenty (20) credit hours in science and technology courses which have significant nanoscience discussion of application. Students will engage in interdisciplinary foundational courses, with nanoscience modules built into the curriculum of the courses. Students are required to take two foundational courses outside of their major to gain the adequate background necessary for subsequent nanoscience coursework. Students will go on to take two upper level nanoscience-related courses, with at least one course being from outside of their own major department. Students minoring in nanoscience will be required to enroll in a research course for a minimum of two semesters, totaling a minimum of four credit hours. Said research course must be at least 300-level (junior level). The students will be required to either participate in individual, independent research projects, or make major contributions to nanoscience- related research projects with designated research mentors. The students will be expected to submit a comprehensive research report, based on their findings.

The introductory interdisciplinary survey course, serves as a gateway course to spark interests in nanoscience and to build enthusiasm for the NanoHU program. This course provides a fundamental foundation for the minor, while informing the general student population of this interdisciplinary subject matter that has dominated global interest in science, technology, engineering and mathematics (STEM) and non-STEM sectors. Students may use this course to decide if they want to pursue an interdisciplinary minor in nanoscience. The introductory course is open to all students, and satisfies the general education requirement for physical science.

A series of seminars is offered where discussions of nanoscience topics are carried out by students, faculty and invited speakers. Emphasis is placed on the interdisciplinary nature of nanoscience. Students can explore current findings in nanoscience, and project future work from research initiatives. The student pursuing said minor is required to attend five nanoscience-related seminars/presentations/talks per semester and submit a 1-page report on each.

The minor in Nanoscience requires 20 credit hours from the following list of courses: *

- 3 credit hours - SCI 203
- 7-8 credit hours selected in courses outside of student's own major department#, selected from: BIO 105, CHE 201, MES 130, PHY 202, PHY 204
- 6-8 credit hours with at least 3 credit hours outside of student's own major department#, selected from: BIO 224, BIO 412, BIO 502, BIO 503, CHE 401, CHE 402, CHE 408, CHE 421, CHE 505, CHE 510, CSC 204, EGR 406, MAT 512, PHY 211, PHY 212, PHY 526
- 4 credit hours minimum of research related to nanoscience, divided between two semesters, selected from: BIO 408, BIO 505, CHE 314-315, CHE 414-415, CSC 291, CSC 391, EGR 391, EGR 491, MAT 424, PHY491. The student is required to submit a comprehensive project report based on nanoscience-related research.

**Note: The Office of the Dean in the School of Science will appoint a faculty mentor who will serve as the advisor for the minor.*

#For Example: A Physics major cannot select any course with a PHY prefix to satisfy the minor if it is already required for a Physics major curriculum.

Division of Biological, Chemical and Environmental Sciences

This Division includes the departments of Biological Sciences, Chemistry and Biochemistry, and Marine and Environmental Science. The Department of Biological Sciences offers the Bachelor of Science degree with concentrations in Cellular and Molecular Biology, Integrative Biology, and Pre-Medical Biology. The Department of Chemistry and Biochemistry is approved by the Committee on Professional Training of the American Chemical Society, and offers Bachelor of Science degrees in Biochemistry, Chemistry (traditional track) and Chemistry (Forensic chemistry concentration). Master's degree programs are offered in Biology and Chemistry, and an Environmental Science concentration is provided through each of these graduate programs.

Division of Health Sciences

The Division of Health Sciences includes the Department of Communicative Sciences and Disorders, which offers a Bachelor of Arts and a Master of Arts program; the Pre-health Program, which offers a Master of Science in Medical Science degree program; and the Department of Physical Therapy, which provides a Doctor of Physical Therapy (D.P.T.) degree program.

Division of Mathematical and Physical Sciences

This Division includes the departments of Atmospheric and Planetary Sciences, Computer Science, Mathematics, Naval Science, and Physics. Master's degree programs are offered in Applied Mathematics, Atmospheric Science, Computer Science, Cyber Security, Physics and Planetary Science. The Doctor of Philosophy (Ph.D.) degree is offered in Atmospheric Science, Physics and Planetary Science.

Atmospheric and Planetary Sciences

The Department of Atmospheric and Planetary Sciences (APS) provides a program in graduate education leading to the M.S. and Ph.D. degrees with concentration either in Atmospheric Science, or in Planetary Science and provides an undergraduate minor in Atmospheric and Planetary Sciences (APS). Students from a variety of academic disciplines are welcome, and the curriculum maintains flexibility to match the interests of individual students. Academics, research, and service to the scientific community, the university, and the public are integral elements of the mission of the department. A high ratio of faculty to students ensures that students at all levels receive mentoring, training, and guidance. See the Graduate College section for more detail on the graduate programs.

The principal objective of the graduate program is to prepare students for successful careers and leadership roles in private and government research laboratories, and in academia. Essential support is provided by the department's research center, the Center for Atmospheric Sciences (CAS). Intellectual vitality fostered by active research is integral to Hampton University's institutional vision, and CAS is a key resource for students and faculty. The center hosts research faculty, support personnel, and infrastructure required to maintain rigorous programs of sponsored research. Center personnel are principal investigators for scientific instrumentation on current and past space missions to study the atmosphere and the space environment of Earth. Current spacecraft missions include CALIPSO, Geotail, TIMED, and the AIM mission (Aeronomy of Ice in the Mesosphere), which is managed by Hampton University and CAS for NASA. The center also maintains a LIDAR observatory on campus to provide ground- based observations of the atmosphere in support of space missions and for basic research.

Research and education partners include NASA, NOAA, the NSF, the EPA, and the DOD, and approximately 20 research universities, laboratories, and other scientific organizations in the U.S. and abroad. Hampton University is a member university of the National Institute of Aerospace; a consortium of universities offering graduate education in aerospace-related sciences and engineering. The NIA is headquartered in Hampton, and students can receive credit for graduate-level courses offered by the partner schools on-site at the NIA, or remotely via teleconferencing. Proximity to NASA's Langley Research Center also provides for convenient access to the many research opportunities offered there.

Minor in Atmospheric and Planetary Science

The Department of Atmospheric and Planetary Sciences (APS) provides an undergraduate minor in Atmospheric and Planetary Science, which was formerly named a minor in Space, Earth, and

Atmospheric Sciences (SEAS) and is truly interdisciplinary in nature. The minor in Atmospheric and Planetary Sciences (APS) requires 18 credit hours from the following list of courses:

- 9-12 hours selected from: SCI 102; ESC 202; APS 101, 102, 105, 106, 303 (or PHY 303), 304, 333, 345, 399.
- 3-6 hours selected from: CHE 509; APS/PHY 307; 351, 411.
- 3-6 hours selected from: APS 401, 410.

Department of Biological Sciences

The Department of Biological Sciences offers both the baccalaureate and master's degrees in biology. The principal objective of the program is to incorporate the instructional and research expertise of the faculty to provide a scholarly atmosphere in which students are exposed to a variety of skills to define, analyze, question and solve scientific research problems. The curriculum provides fundamental and advanced interdisciplinary academic and professional enrichment for students who aspire to pursue graduate studies and careers in molecular, genetic, microbial, botanical, ecological and organismal fields, as well as those with an interest in secondary and post-secondary teaching, or in medical and other health-related professions.

Curricula leading to the Bachelor of Science degree in Biology are Cellular and Molecular, Integrative and Pre-Med Biology. The department also offers a Master's degree program in Biology, Biology Education, and Medical Science. The student should consult his or her departmental advisor to determine the plan that best meets the student's career goals. A student who plans to major in biology should begin his or her program in the first semester of the freshman year. By the end of the freshman year, all undergraduate Biological Science majors select a concentration in either Cellular and Molecular Biology, Integrative Biology or Pre-Med Biology. Courses and course content of these curricula are continually updated to ensure inclusion of current concepts in the biological sciences. All Biological Science majors must earn a minimum grade of "C" in all School of Science courses (as well as ENG 101, ENG 102, and COM 103).

Facilities

HHMI-Student Molecular Biology Research Laboratory
Equipped with cutting-edge research tools and technologies, this Howard Hughes Medical Institute (HHMI) lab empowers students to become research scientists in the emerging areas of biology. For example, the capability in this laboratory allows students and faculty to observe and dissect genome and gene expression under various conditions and to study the genomes of soil bacteria that cannot be cultured in the lab. Emerging areas include micro-RNA biology, genomics, metagenomics, proteomics, bioinformatics, synthetic biology, epigenetics and molecular evolution. Students engage in faculty-mentored research projects that give them a sense of ownership and independence. Upon completion of these projects, students will experience the thrill of discovery while they use the process of scientific discovery. The goal of this lab is to prepare Twenty-First century leaders in scientific research and medicine with the idea of enabling them to make significant contributions to society. This lab is equipped for video conferencing through Skype and other technologies.

Keck-HU Bioinformatics Laboratory
A center for in silico research and computational biology modeling, the Keck-HU Bioinformatics Lab is equipped with computers to accommodate 24 students during research or training sessions. In this Lab, students learn to navigate the National Center for Biotechnology Information (NCBI) website. They also learn to design student- centric in silico research and computational modeling projects and present their findings to the class or members of the department. As in the case of all research projects in biology, the scientific method guides the process of discovery. This lab is equipped for video conferencing through Skype and other technologies.

Keck-HU Genomics Laboratory
The focus of this lab is on the genome of yeast, the fruit fly, plant model systems. DNA Microarray technology is the major approach currently in use. Next-Generation DNA sequencing technology is being established in the lab. It takes advantage of the advances in desktop sequencing that is available on a USB-flash drive. This laboratory is also the site for our new Synthetic Biology Project that seeks 1) to design and construct new biological parts, devices, and systems, and 2) to redesign existing natural biological systems for useful purposes. This lab is equipped for video conferencing through Skype and other technologies.

NIH/NCI-Cancer Biology Laboratory
This laboratory, funded by a P20 MICCP grant from the National Cancer Institute, is equipped with cell and molecular biology research and training equipment. The cell culture facility in the lab includes a six-foot biosafety cabinet, CO2 incubator and refrigerated centrifuges. Other equipment include cytospin, thermocyclers, ELISA reader, spectrophotometers, microcentrifuges, speed- vac, imaging system, electrophoresis equipment and computers.

Biology Minor Requirements:

The biology minor requires 23 credit hours, to include Introduction to Biology I and II (BIO 105,106), General Botany (BIO 210), General Zoology (BIO 220), General Microbiology (BIO 304) and Principles of Heredity (BIO 305). BIO 105 and BIO 106 are prerequisites to the other courses. All courses in the School of Science must be passed with a "C" or better by students who wish to earn a minor in Biology.

Biology – (Pre-Med)

Freshman Year	**Semester**	**1st**	**2nd**
Biology 105, 106 (either order)		4	4
Biology 110		1	-
Chemistry 201-202		4	4
[1]Mathematics 117, 130		3	3
English 101-102		3	3
Health 200 or Physical Education Activity		-	2
University 101		1	-
Total		**16**	**16**

Sophomore Year	**Semester**	**1st**	**2nd**
Biology 304, 305 (either order)		4	3
Chemistry 301-302		4	4

Sociology 205, Psychology 203 (either order)		3	3
Humanities 201, 2Humanities Elective		3	3
Communication 103, History 106		3	3
Biology 203		-	1
Total		**17**	**17**
Junior Year	**Semester**	**1st**	**2nd**
Biology 336, 415		3	3
Biology 311		-	3
Biology 425		-	1
Chemistry 303		4	-
Mathematics 205 or 305 or MES 210		3	-
Physics 201, 202		4	4
Physics 215, 216		1	1
Total		**15**	***12**
Senior Year	**Semester**	**1st**	**2nd**
Biology 513, 510 (either order)		3	4
Biology 413		-	1
[4]Biology Elective		3	3
[4]Biology Elective		3	3
[5,6]Biology 408, 407 (either order)		3	2
Free Elective		-	2
Total		***12**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

[1]Students may elect to take Calculus I & II (MAT 151-152) instead of Precalculus Mathematics I (Mat 117) and MAT 130. Note that Precalculus Mathematics II (MAT 118), not Precalculus Mathematics I (MAT 117) is the prerequisite to Calculus I (MAT 151).

[2]Students may elect to take any of the Humanities courses from the list of approved Humanities electives.

[3]Students may elect to continue the sequence and complete CHE 304. CHE 304 will count as a Genetics/Cellular & Molecular Biology Elective.

[4]Students in this curriculum must select two (2) biology electives from the Anatomy, Physiology and Development elective list and two (2) courses from the Genetics/Cellular & Molecular Biology elective list.

[5]Students are urged to complete at least one, preferably two, research internships during the summer. Students who have successfully completed a summer research internship and presented their findings may earn Research Problems (BIO 408) credit. A second external summer research internship may count as Research Problems (BIO 505).

[6]Students may not enroll in Special Projects (407), Research Problems (408) or Research Problems (505) more than once.

**Note: Students who withdraw from a course during the semesters that have 12-14 credit hours are in jeopardy of losing scholarship support or financial aid.*

Biology Pre-Med Electives (Select two courses from Anatomy, Physiology & Development (AP&D) Electives and two courses from Genetics/Cellular & Molecular (G/CM) Biology Electives. Students may opt to select a course from the other electives list or another course from either AP&D or G/CM categories below.

Anatomy, Physiology & Development Electives: BIO 224, 225, 301, 302, 308, 309, 402, 409, 416, 503, 507, 514, 515, 523, 541, 542, 543, 544; NUR 221.

Genetics/Cellular & Molecular Biology Electives: BIO 211, 309, 311, 312, 404, 405, 406, 409, 410, 412, 423, 424, 430, 502, 503, 505, 506, 507, 508, 512, 513, 514, 520, 542, 543 544; CHE 303-304

Other Electives: BIO 210, 220, 403, 409, 420, 422 A&B, 450, 501, 504, 506, 507, 509, 510, 514, 515, 516, 517, 518, 519, 521, 522, 523, 524, 525, 526, 538, 540, 541, 542, 543, 544, 546, 550; MES 510, NUR 221.

Curriculum Outline – B.S. Biology (Cellular & Molecular)

Freshman Year	**Semester**	**1st**	**2nd**
Biology 105, 106 (either order)		4	4
Biology 110		1	-
English 101-102		3	3
Chemistry 201-202		4	4
[1]Mathematics 117, 130		3	3
Health 200 or Physical Education Activity		-	2
University 101		1	-
Total		**16**	**16**
Sophomore Year	**Semester**	**1st**	**2nd**
Biology 305, 312		3	3
Biology 203		-	1
Chemistry 301-302		4	4
Communication 103, History 106		3	3
Humanities 201 & 2Humanities Elective		3	3
[3]Social Science Electives		3	3
Total		**16**	**17**
Junior Year	**Semester**	**1st**	**2nd**
Biology 304, 311 (either order)		4	3
Biology 415		3	-
Bio 425		-	1
Chemistry 303-304		4	4
Physics 201-202		4	4
Physics 215-216		1	1
Total		**16**	***13**
Senior Year	**Semester**	**1st**	**2nd**
[5,6]Biology 408, 505		3	3
Biology 413		-	1
[7]Biology Elective		3	3
[7]Biology Elective		3	3
[8]Science Elective		-	3
[4]MAT 205 or 305 or MES 210		3	-
Free elective		-	1
Total		***12**	***14**
TOTAL CREDITS FOR GRADUATION			**120**

[1]Students may elect to take Calculus I & II (MAT 151-152) instead of Precalculus Mathematics I (Mat 117) and MAT 130. Note that Precalculus Mathematics II (MAT 118), not Precalculus Mathematics I (MAT 117) is the prerequisite to Calculus I (MAT 151).

[2]Students may elect to take any of the Humanities courses from the list of approved Humanities electives.

[3]It is recommended that students who are planning to take the MCAT exam, enroll in Intro to Sociology (SOC 205) and Intro to Psychology (PSY 203) as their Social Science electives.

[4]Students may choose MAT 205 (Statistics). MAT 305 (Probability and Statistics) or MES 210 (Biometry).

[5]Students are urged to complete at least one, preferably two, research internships during the summer. Students who have successfully completed a summer research internship and presented their findings may earn Research Problems (BIO 408) credit. A second external summer research internship may count as Research Problems (BIO 505).

[6]Students may not enroll in either Research Problems (408) or Research Problems (505) more than once.

[7]Students in this curriculum must select at least three (3) biology electives from the Molecular and Cellular electives list.

[8]Students may elect to take any School of Science course including Biology) above the 200 level that is not required for this curriculum.

**Note: Students who withdraw from a course during the semesters that have 12-14 credit hours are in jeopardy of losing scholarship support or financial aid.*

Cellular and Molecular Electives (Select at least three (3) courses from the Cellular and Molecular electives, one course from the other elective list and one course from two Science electives course list.

Genetics/Cellular & Molecular Biology Electives: BIO 211, 309, 404, 405, 406, 409, 410, 412, 423, 424, 430, 502, 503, 505, 506, 507, 508, 512, 513, 514, 520, 542, 543 544.

Other electives: BIO 210, 220, 224, 225, 301, 302, 308, 309, 402, 403, 409, 420, 422 A&B, 450, 501, 416, 503, 504, 506, 507, 509, 510, 514, 515, 516, 517, 518, 519, 521, 522, 523, 524, 525, 526, 538, 540, 541, 542, 543, 544, 546, 550; MES 510, NUR 221.

Science Electives: Any School of Science, including biology courses above the 200 level can count as science electives.

Curriculum Outline – B.S. Biology – (Integrative Biology)

Freshman Year	**Semester**	**1st**	**2nd**
Biology 105, 106 (either order)		4	4
Biology 110		1	-
Chemistry 201-202		4	4
[1]Mathematics 117, 130		3	3
English 101-102		3	3
Health 200 or Physical Education Activity		-	2
University 101		1	-
Total		**16**	**16**
Sophomore Year	**Semester**	**1st**	**2nd**
Biology 304, 305 (either order)		4	3
Chemistry 301-302		4	4
Communication 103, History 106		3	3
Social Science Electives		3	3
Humanities 201 & 2Humanities Elective		3	3
Biology 203		-	1
Total		**17**	**17**
Junior Year	**Semester**	**1st**	**2nd**
Biology 220, 210		4	4
Biology 211		-	3
[3]Biology Elective		3	-
Mathematics 205 or 305 or MES 210		3	-
Physics 201, 202		4	4
Physics 215, 216		1	1
Biology 425		-	1
Total		**15**	***13**
Senior Year	**Semester**	**1st**	**2nd**
[4,5]Biology 408, 505		3	3
Biology 413		1	-
[3]Biology Elective		3	3
[3]Biology Elective		3	3
Free Elective		-	3
MES 430		4	-
Total		***14**	***12**
TOTAL CREDITS FOR GRADUATION			**120**

[1]Students may elect to take Calculus I & II (MAT 151-152) instead of Precalculus Mathematics I (Mat 117) and MAT 130. Note that Precalculus Mathematics II (MAT 118), not Precalculus Mathematics I (MAT 117) is the prerequisite to Calculus I (MAT 151).

[2]Students may elect to take any of the Humanities courses from the list of approved Humanities electives.

[3]Students in this curriculum must select at least three (3) biology electives from the Integrative Biology list. The remaining two Biology electives may come from any group of Biology electives.

[4]Students are urged to complete at least one, preferably two, research internships during the summer. Students who have successfully completed a summer research internship and presented their findings may earn Research Problems (BIO 408) credit. A second external summer research internship may count as Research Problems (BIO 505).

[5]Students may not enroll in Special Projects (407), Research Problems (408) or Research Problems (505) more than once.

**Note: Students who withdraw from a course during the semesters that have 12-14 credit hours are in jeopardy of losing scholarship support or other financial aid.*

Integrative Biology Electives (Select at least three): BIO 403, 407, 409, 420, 422 A & B, 450, 501, 504, 506, 507, 509, 514, 515, 516, 517, 518, 519, 521, 522, 523, 524, 525, 526, 538, 540, 541, 542, 543, 544, 546, 550; CHE 509; MES 130, 450, 452, 510.

Anatomy, Physiology & Development Electives: BIO 224, 225, 301, 302, 308, 309, 336, 402, 409, 416, 503, 507, 514, 515, 523, 541, 542, 543, 544; NUR 221.

Genetics/Cellular & Molecular Biology Electives: BIO 309, 311, 312, 404, 405, 406, 409, 410, 412, 423, 424, 430, 502, 503, 505, 506, 507, 508, 512, 513, 514, 520, 542, 543 544; CHE 303-304

The Bachelor of Science in Biology – Master in Teaching Program (Secondary Biology Education Emphasis)

The Bachelor of Science in Biology - Master in Teaching (BA- MT) degree is designed for students who desire a career in teaching grades 6-12. This five-year program, offered in collaboration between the Department of Biological Sciences and the Division of Professional Education in the College of Education and Human Development, conforms to the accreditation standards of the Division of Teacher Education in the Virginia State Department of Education, and the National Council for Accreditation of Teacher Education.

Curriculum Outline - B.S. Biology – (Integrative Biology) Entering Class of 2014 and Beyond

Freshman Year	**Semester**	**1st**	**2nd**
Biology 105, 106 (either order)		4	4
Biology 110		1	-
Chemistry 201-202		4	4
[1]Mathematics 117, 130		3	3
English 101-102		3	3
Health 200 or Physical Education Activity		-	2
University 101		1	-
Total		**16**	**16**
Sophomore Year	**Semester**	**1st**	**2nd**
Biology 304, 305		4	3
Chemistry 301-302		4	4
Communication 103, History 106		3	3
Social Science Electives		3	3
Humanities 201 & [2]Humanities Elective		3	3
Biology 203		-	1
Total		**17**	**17**

Junior Year	**Semester**	**1st**	**2nd**
Biology 210, 220 (either order)		4	4
Biology 211		-	3
Biology 425		-	1
Education 200		3	-
Education 300, 302		3	3
Mathematics 205 or 305 or MES 210		3	-
Physics 201, 202		4	4
Physics 215, 216		1	1
Total		**18**	**16**
Senior Year	**Semester**	**1st**	**2nd**
[3,4]Biology 505, 336		2	3
Biology 413, 414		1	1
[5]Biology Electives		3	3
Biology 501		-	3
Marine & Environment Sciences 430		4	-
[6]Education 552, 506		4	3
[6]Education 517, 550		3	3
Total		**17**	**16**
Total Credits 120 Undergraduate/13 Graduate Credits			
Fifth Year	**Semester**	**1st**	**2nd**
Education 608		3	-
Education 610		3	-
Education 623		3	-
Education 647		-	9
Total		**9**	**9**
Total 18 Graduate Credits			
Total Undergraduate Credits:			**120**
Total Graduate Credits:			**31**
Total Credits – 5-yr Program			**151**

[1]Students may elect to take Calculus I & II (MAT 151-152) instead of Precalculus Mathematics I (MAT 117) and MAT 130. Note that Precalculus Mathematics II (MAT 118), not Precalculus Mathematics I (MAT 117) is the prerequisite to Calculus I (MAT 151).

[2]Students may elect to take any of the Humanities courses from the list of approved Humanities electives.

[3]Students are urged to complete at least one, preferably two, research internships during the summer. Students who have successfully completed a summer research internship and presented their findings may earn Research Problems (BIO 505) credit.

[4]Students may not enroll in Special Projects (407), Research Problems (408) or Research Problems (505) more than once.

[5]Students may elect to complete two (2), three-credit hour Biology electives from the lists below. At least one course must be from the Genetics/ Cellular & Molecular Biology elective list.

[6]EDU 508, 517, 550, 552 are counted toward graduate degree requirements and are not part of the 120 credit hours that count toward the Bachelor of Science degree in Biology.

Anatomy, Physiology & Development Electives: BIO 224, 225, 301, 302, 308, 309, 336, 402, 409, 416, 503, 507, 514, 515, 523, 541, 542, 543, 544; NUR 221.

Genetics/Cellular & Molecular Biology Electives: BIO 309, 311, 312, 404, 405, 406, 409, 410, 412, 423, 424, 430, 502, 503, 505, 506, 507, 508, 512, 513, 514, 520, 542, 543 544; CHE 303-304

Integrative Biology Electives (Select at least three): BIO 403, 407, 409, 420, 422 A & B, 450, 501, 504, 506, 507, 509,

514, 515, 516, 517, 518, 519, 521, 522, 523, 524, 525, 526, 538, 540, 541, 542, 543, 544, 546, 550; CHE 509; MES 130, 450, 452, 510.

Graduate Programs in Biological Sciences

The graduate program in Biological Sciences offers the Master of Science (M.S.) degree in biology with or without an environmental science concentration. The major objective of these programs is to offer a sequence of technical courses in the Biological Sciences for students who plan to become professional biologists, teachers, or environmental scientists. These programs provide a broad preparation in modern biological specialty areas and an introduction to biological research. Coursework and research opportunities utilize the Chesapeake Bay and the surrounding area as a model ecosystem in which to study basic principles of ecology and environmental science. Further detail is provided in the Graduate College section of this catalog.

Department of Chemistry and Biochemistry

The Hampton University School of Science's Department of Chemistry and Biochemistry has three Bachelor's (BS) degree programs: 1) BS degree in Biochemistry, 2) BS degree in Chemistry, and 3) BS degree in Chemistry with a Forensics concentration. The different degree plans were historically set up as rigorous ACS certified degree plans to meet the diverse needs of students who aim to proceed to graduate school or secure careers in chemistry, biochemistry, and other related fields.

Our department is a collaborative team of educators with training and interests that span all the modern chemistry areas. We are building on a long-established tradition of training multidisciplinary graduates with rigorous and applicable skills to compete for direct entry into the workforce and graduate and professional programs. While preparing our students, the department believes in ongoing faculty development. We model the Hampton University character and excellence; we build in our learners through sustained excellence in teaching, research, and service.

Accordingly, the Department has incorporated into the curricula undergraduate research that begins as early as the freshman year. The American Chemical Society authorizes the department's chair to certify graduating students who complete any of the three undergraduate degrees. The Department offers two graduate degrees a Master of Science graduate program, and a Master of Science in Chemistry Teaching in the Department of Chemistry and Biochemistry

Facilities

The Department of Chemistry and Biochemistry is housed in Turner Hall, with eight research laboratories and eight teaching laboratories. Major instrumentation and equipment include NMR and IR Spectrometers, UV-VIS Spectrophotometers, AAS and AES spectrometers, LC-MS, Capillary Electrophoresis, CE-MS, Separation systems, including HPLC, FPLC, GC, and Computer facilities. The Chemical Instrumentation Laboratory Facility (CILF) pro- vides faculty and students measurement services at a centralized location, and houses a superconducting NMR, FTIR, AAS, UV-VIS Spectrophotometer and a benchtop Ion Trap Mass Spectrometer-Liquid chromatography system. A Water Quality Measurement Laboratory provides drinking water quality measurement services and an opportunity for students to learn about water quality and

other environmental measurement operations. These sophisticated instruments are available for use by students and faculty from various disciplines in science and engineering with the guidance of a full-time technician.

Computing Facilities

The department offers two Integrated Student Learning Centers (ISLC) consisting of PCs networked to support general computational operations, chemistry tutorials, Internet access, instrument simulations, molecular modeling, and research. Students can surf the Web for textbook publisher and faculty web pages to enhance learning and prepare for examinations and quizzes. Students can also go to the Harvey Library to use computer facilities located in the Academic Technology Mall. Internet access is available in all classrooms and laboratories in Turner Hall. A Local Area Network (LAN) is used for printing and resource sharing.

Financial Aid and Scholarships

From time to time, a limited number of scholarships are available in the Department of Chemistry and Biochemistry. Other sources of financial support include University-wide scholarship programs, funded faculty research programs, and special training programs. Students who receive financial support through these programs may be required to enroll in undergraduate or graduate research courses.

Programs of Study

The B.S. Degree Program in Traditional Chemistry

This program prepares students for direct entry into doctoral degrees in chemistry and related fields. To successfully complete the program, the student must complete the core chemistry curriculum and electives; courses in related areas (mathematics, biology, physics, and computer science); and additional General Education requirements as designated by the University; all of which must also be passed with at least a "C". To receive American Chemical Society Certified degree, students must complete foundational courses in all five areas of chemistry beyond the introductory courses. All chemistry majors are strongly encouraged to take the Graduate Record Examination (GRE) (including the chemistry part) before graduation. Students are encouraged to designate The Hampton University Department of Chemistry and Biochemistry as one of the recipients of the GRE scores.

The B.S. Degree Program in Chemistry with Forensic Chemistry Concentration

As a concentration within the Chemistry program, the Forensic Chemistry Option expands the field of career options for chemistry and other science students. Forensic Science is an applied science, the practice of which requires the integration of scientific knowledge and skills in the examination, analysis, interpretation, reporting, and testimonial support of physical evidence. Forensic Science plays a crucial role in the criminal justice system. Most practicing Forensic Scientists are employed in crime laboratories associated with law enforcement and criminal investigations, or government agencies. Private laboratories may also employ forensic scientists. While there are agencies that accredit forensic laboratories and certify Forensic Science degrees, neither accreditation nor certification is a necessary requirement for employment as a forensic scientist.

Forensic Science requires a strong foundation in the natural sciences with extensive laboratory experience and the ability to apply these sciences to practical problems. The chemistry curriculum provides essential knowledge, skills, and abilities that are a foundation for a career in Forensic Science. The curricula for the Traditional Chemistry degree program and the Forensic Chemistry option are presented below. Both programs lead to an ACS certified Bachelor of Science degree. Intent to pursue the Forensic Chemistry option must be declared during the fall semester of the sophomore year. Consultation with the Department Chairman and completion of an intent form are required.

The B.S. Degree Program in biochemistry

Biochemistry is the study of the chemistry of life. It is a rapidly evolving field that allows students to understand the underlying processes in living organisms. It deals with the structure and functions of cellular components, such as proteins, carbohydrates, lipids, nucleic acids, and other biomolecules. Biochemistry combines biology with organic chemistry, inorganic chemistry, and physical chemistry to elucidate the mechanisms by which living things obtain energy from food; the chemical basis of heredity; and biological changes related to disease. Biochemistry integrates the sciences of molecular biology; immunochemistry; analytical biochemistry; structural biology; neurochemistry; bioinorganic, bioorganic, and biophysical chemistry. Biochemistry is applicable in pharmacology, toxicology, physiology, microbiology, and clinical chemistry.

The B.S. in Biochemistry is a carefully designed program that combines key topics in biological, chemical, and other sciences to provide the student an educational experience leading to an undergraduate degree in Biochemistry. This degree program places Hampton University in a rather unique position in two respects: (1) we are among very few institutions that offer an undergraduate degree in Biochemistry; only a handful of other HBCUs offer this degree; and (2) the program provides a suitable medical/biomedical career path alternative for the large number of students who matriculate at HU with interests in health, biomedical and related careers. The American Chemical Society authorizes the department's chair to certify graduating students who complete this curriculum.

The Graduate Program

The graduate program in chemistry is a thesis-based study leading to the degree of Master of Science. We also offer a Masters of Teaching in Chemistry. Details for both programs can be found in the graduate catalogue.

Curriculum Outline – B.S. Chemistry (Traditional Program – American Chemical Society Certified)

Freshman Year	Semester	1st	2nd
Chemistry 201-202 (General Chemistry)		4	4
English 101-102 (English Composition I&II)		3	3
History 106 (World Civilization)		3	-
COM 103 (Oral Communication)		-	3
Mathematics 151-152 (Calculus I&II)		4	4
Health Education		2	-

SOC 205 (Introduction to Sociology)		-	3
Freshman orientation		1	-
Total		**17**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Chemistry 301-302 (Organic Chemistry I&II)		4	4
Humanities		3	3
Mathematics 251 (Calculus III), 260 (Diff. Equations)		4	3
Physics 203-204 (Physics I&II		3	3
Physics 215-216 (Physics Labs)		1	1
Total		**15**	**14**
Junior Year	**Semester**	**1st**	**2nd**
Chemistry 313,408 (Analytical Chemistry I&II)		4	4
Biology 105-106 (Introduction To Biology I&II)		4	4
Chemistry 401-402 (Physical Chemistry I&II).		4	4
Chemistry 303-304 (Intro. Biochemistry I&II)		4	4
Total		**16**	**16**
Senior Year	**Semester**	**1st**	**2nd**
Chemistry 405-406 (Chemistry Seminar I&II)		1	1
Chemistry 407, Chemistry Elective		3	3
PSY 203 (Introduction to Psychology		-	3
Chemistry 419 , Chemistry Elective		4	3
Chemistry Elective,		4	3
Total		**12**	**13**
Total Credits			**120**

**Chemistry Elective must be chosen from any advanced chemistry courses offered in the department of chemistry and biochemistry. MAT 118 is not required for chemistry and biochemistry majors. However, if a student has a perceived deficiency in mathematics, s/he may elect to take MAT 118 during the summer or during the first semester of the freshman year.*

Curriculum Outline – B.S. Chemistry (Forensic Chemistry Concentration – American Chemical Society Certified)

Freshman Year	**Semester**	**1st**	**2nd**
Chemistry 201-202 (General Chemistry)		4	4
English 101-102 (English Composition)		3	3
History 106 (World Civilization)		3	-
COM 103 (Oral Communication).		-	3
SOC 205 (Introduction to Sociology)		-	3
Mathematics 151 -152 (Calculus I&II)		4	4
Freshman Orientation		1	-
Total		**17**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Chemistry 301-302 (Organic chemistry I&II)		4	4
Humanities		3	3
Mathematics 251 (Calculus III)		4	-
PSY 203 (Introduction to Psychology)		-	3
Physics 203-204 (Physics I&II)		3	3
Physics 215-216 (Physics Labs).		1	1
Total		**15**	**14**
Junior Year	**Semester**	**1st**	**2nd**
Chemistry 313,408 (Analytical Chemistry I&II)		4	4
Biology 105-106 (Introduction to Biology I&II)		4	4
Chemistry 401-402 (Physical Chemistry I&II).		4	4
Chemistry 303-304 (Intro. Biochemistry I&II)		4	4
Total		**16**	**16**
Senior Year	**Semester**	**1st**	**2nd**
Chemistry 405-406 (Chemistry Seminar I&II)		1	1
Chemistry 420/421 (Forensic Chemistry)		3	4
Chemistry 419 Chemistry Elective		4	3
Sociology 215, 305 (Criminol., Criminal Justice)		3	3
Statistics Elective		3	-
Health Education / PE		-	2
Total		**14**	**13**
Total Credits			**120**

Curriculum Outline – B.S. Biochemistry (ACS Certified)

Freshman Year	**Semester**	**1st**	**2nd**
Chemistry 201-202 (General Chemistry)		4	4
English 101-102 (English Composition)		3	3
History 106 (World Civilization)		3	-
COM 103 (Oral Communication).		-	3
SOC 205 (Introduction to Sociology)		-	3
Mathematics 151 -152 (Calculus I&II)		4	4
Freshman Orientation		1	-
Total		**17**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Chemistry 301-302 (Organic chemistry I&II)		4	4
Biology 105-106 (introduction to biology I&II)		4	4
Humanities		3	3
Physics 203-204 (Physics I&II)		3	3
Physics 215-216 (Physics Labs)		1	1
CHE 214 (Basic Research Topics in Chemistry		1	-
Total		**16**	**15**
Junior Year	**Semester**	**1st**	**2nd**
Chemistry 313 (Analytical Chemistry I)		4	-
Statistics Elective		-	2
Chemistry 401 (Physical Chemistry I).		4	-
Chemistry 303-304 (Intro. Biochemistry I&II)		4	4
PSY 203 (Introduction to Psychology)		-	3
Biology, MES or Chemistry Elective		3	3
Total		**15**	**12**
Senior Year	**Semester**	**1st**	**2nd**
Chemistry 405-406 (Chemistry Seminar I&II)		1	1
Chemistry 501 - 502 (Biochemistry I &II)		4	4
Chemistry 506 (Physical Biochemistry)		3	-
Chemistry 512 (Bioinorganic Chemistry)		-	3
Chemistry 508 (Bioorganic Chemistry)		-	3
Chemistry 414- 415 (Research)		3	3
Biology, MES or Chemistry Elective		3	-
Total		**14**	**14**
Total Credits			**120**

Instead of CHE 508 Bioorganic Chemistry (3), students may take CHE 407 Intermediate Organic (3). Research courses may be substituted for chemistry electives. CHE electives include all 400 and 500 level courses offered by the Department of Chemistry and Biochemistry.

Biology or Marine Environmental Science elective courses may be selected from the following list:

BIO 301, Comparative Anatomy; BIO 302, Human Anatomy; BIO 304, General Microbiology; BIO 305, Principles of Heredity; BIO 312, Molecular Biology; BIO 336, Human Physiology; BIO 412, Gene Expression and Control; BIO 415, Fundamentals of Cell Biology; BIO 502, Advanced Genetics; BIO 503, General and Cellular Physiology; BIO 512, Cell Biology; BIO 513, Immunology; BIO 514 Virology; BIO 515, Parasitology; MES 311, Renew-

able Energy; MES 510, Environmental Toxicology or other biology courses with permission of chair. Students may choose a Statistics elective (2/3) that will enhance their chosen research and career interests from the following list: MAT 224, Introduction to Mathematical & Statistical Software Packages I; MAT 324, Introduction to Mathematical & Statistical Software Packages II; MAT 205, Introduction to Statistics; MAT 305, Probability and Statistics; PHA 332, Biostatistics and Epidemiology; MES 210, Biometry: Introduction to Environmental Statistics; or equivalent courses with permission of chair.

More advanced level calculus courses may be substituted for MAT 151 and MAT 152. More advanced level biology courses may be substituted for BIO 105 and BIO 106.

More advanced level physics courses may be substituted for PHY 203 and PHY 204. We maintain a curriculum that allows students to start from MAT 151/152. Students with acceptable scores in AP Calculus, Physics, AP Chemistry, and AP BIO, AP English or other courses can get credit for equivalent courses in the curriculum.

Humanities sequence includes Humanities 201 and an Humanities elective.

Minor in Chemistry

The Chemistry Minor requires 24 credit hours in chemistry, mathematics up to MAT 152 (calculus II), and a chemistry elective. The required chemistry courses include: General Chemistry (CHE 201-202), Organic Chemistry (CHE 301-302), Quantitative Analysis (CHE 313), Physical Chemistry I (CHE 401), and the elective can be selected from Instrumental Analysis (CHE 408), Chemistry Elective, Biochemistry (CHE 501), or Environmental Chemistry (CHE 509). The recommended sequence is as follows:

Freshman Year	**Semester**	**1st**	**2nd**
Chemistry 201-202 (General Chemistry I&II)	4	4	
Mathematics 118 (Pre-Calculus Ii)	3	-	
Sophomore Year	**Semester**	**1st**	**2nd**
Chemistry 301-302 (Organic Chemistry I&II)	4	4	
Mathematics 151-152 (Calculus I&II)	4	4	
Junior Year	**Semester**	**1st**	**2nd**
Chemistry 313 (Analytical Chemistry I)	4	-	
Senior Year	**Semester**	**1st**	**2nd**
Chemistry 401 (Physical Chemistry I)	4	-	
Chemistry Elective	3	-	

Department of Communicative Sciences and Disorders

The mission of the Department of Communicative Sciences and Disorders is to prepare undergraduate and graduate students to meet the needs of children and adults with communication impairments in a changing multicultural society. In so doing, the academic programs are designed to disseminate existing knowledge of speech, language, hearing, and swallowing disorders, and to provide clinical experiences in the PREVENTION, recognition, assessment, diagnosis and treatment of speech, language, hearing and swallowing disorders. The undergraduate program prepares students for graduate study in the fields of speech-language pathology and audiology. The major objectives of the undergraduate curriculum are

1. to disseminate existing knowledge of speech, language, hearing and swallowing disorders using multi-disciplinary approaches;
2. to provide clinical experiences using the appropriate procedures for the recognition, assessment, diagnosis, and treatment of speech, language and hearing disorders;
3. to prepare students for successful study at the graduate level in speech-language pathology or audiology; and
4. to prepare students to meet the minimum requirements for subsequent professional certification by the American Speech-Language-Hearing Association.

Facilities

The clinical training facilities that serve the programs in Communicative Sciences and Disorders are located in the department's own Speech, Language and Hearing Clinic, as well as in numerous external practica sites (i.e., rehabilitative facilities, hospitals, schools, etc.). The Speech, Language, and Hearing Clinic provides diagnostic and therapeutic services for speech, language and hearing problems. The clinic consists of six (6) therapy rooms with closed circuit cameras for remote observation and recording and two (2) IAC hearing test suites with facilities for complete audiological testing. The department maintains a speech science laboratory and a learning resource center.

Special Programs

Directed Observation

In this program, third-year undergraduate students are given the opportunity to develop competent clinical observation skills and opportunity to acquire observation hours by studying a variety of cases and clinical procedures.

Therapy Apprenticeship Program

In this program, third-year undergraduate students are assigned to work as therapy assistants to senior undergraduate and graduate student clinicians.

Clinical Practicum

In this program, senior undergraduate students are provided clinical experiences in The Speech, Language, Hearing Clinic and in external facilities. Prior to enrollment in clinical practicum, undergraduate students must have completed the following academic requirements:

1. Obtained a "C" or above in the following major courses: CDS 201, 224, 227, 228, 300, 301, 310, 311, 315, 316, 331, and 332.
2. Passed the Junior Comprehensive Examination. As a prerequisite for the examination, students must complete and pass with a "C" or above, the following major courses: CDS 201, 224, 227, 228, 300, 301, 315, and 331.The examination is given twice yearly, at the end of the spring semester of the junior year and at the beginning of the following academic year.
3. Students failing the examination will be allowed to enroll in CDS 425; however, they must attend a special laboratory section and pass the course with a "C" or above in order to satisfy requirements for graduation. Satisfactory completion of the laboratory section requires passing the Junior Comprehensive Examination. In addition, the number of practicum hours these students are able to obtain is restricted. If any practicum course is failed, none of the practicum hours accrued shall be counted.

Curriculum Outline – B. A. Communicative Sciences and Disorders

Freshman Year	**Semester**	**1st**	**2nd**
Biology 103		4	-
Communication Disorders 201		-	3
Oral Comm 103		-	3
English 101-102		3	3
History 106		3	-
Mathematics 110 or higher		3	-
Physical Education Activities		1	1
Freshman Orientation		1	-
Humanities 201		-	3
Psychology 203		-	3
Total		**15**	**15**
Sophomore Year			
Foreign Language		3	3
SOC 205		3	-
Communication Disorders 224		3	-
Communication Disorders 227, 228		3	3
Communication Disorders 300		-	3
Humanities		3	-
Chemistry 101		-	3
Psychology 311		-	3
Total		**15**	**15**
Junior Year	**Semester**	**1st**	**2nd**
Communication Disorders 301		3	-
Communication Disorders 310, 311		1	1
Communication Disorders 315-316		3	3
Communication Disorders 331-332		3	3
Communication Disorders Elective*		-	3
Psychology 346		-	3
Free Elective		3	-
Social Science Elective		3	-
Special Education 307		-	3
Total		**16**	**16**
Senior Year	**Semester**	**1st**	**2nd**
Communication Disorders 425-426		4	4
Communication Disorders 429		-	3
Communication Disorders 431		3	-
Communication Disorders 432		3	-
Communication Disorders 436		3	-
Communication Disorders 438		-	3
Free Electives		3	3
Total		**16**	**13**
TOTAL CREDITS FOR GRADUATION		**120**	**122**

**Undergraduate course electives include CDS 305 and CDS 499*

***Students are to take 6 credits of a foreign language beginning.*

**** Fifty (50) clock hours of supervised clinical practicum are required for the completion of the course.*

Graduate Program in Communicative Sciences and Disorders

The Department of Communicative Sciences and Disorders offers graduate training in the specialization of speech-language pathology. The graduate program is fully accredited by the Council on Academic Accreditation of the American Speech-Language Hearing Association. The graduate program in the Department of Communicative Sciences and Disorders offers the Master of Arts (M.A.) degree and provides students with the academic and clinical experiences that will enable them to earn the Certificate of Clinical Competence (CCC) awarded by the American Speech- Language-Hearing Association (ASHA). Further detail is provided in the Graduate College section of this catalog.

Department of Computer Science

The Department of Computer Science offers coursework leading to the Bachelor of Science degree in Computer Science, in Computer Information Systems, and in Cyber Security - Computer Science Track. These programs are designed for students who plan to pursue in-depth training in one or more software application areas for entering the workforce. In addition, the Department prepares students for further graduate education in computer and information sciences. Coursework leading to the Master of Science degrees in Computer Science and in Cyber Security is provided. The Department is located in the Science and Technology Building and has state-of-the-art computer resources, and an enviable record of placing its students in positions of employment or in graduate school.

The Department of Computer Science houses the Information Assurance and Cyber Security Center at Hampton University (IAC@HU), which is a multidisciplinary center devoted to Education, Research, and Training in information assurance and cyber security. The IAC@HU is designated as a Center of Academic Excellence in Cyber Defense Education (CAE-CDE) by the National Security Agency (NSA) and the Department of Homeland Security (DHS). The center provides program and curriculum development, workshops, multidisciplinary research opportunities, outreach to other HBCU/MI's and Community Colleges, and access to IA and Cyber Security research resources. As part of the Center, the Information Assurance and Cyber Security lab, located in the Computer Science Department, provides an isolated networked computer environment suitable for information assurance and cyber security education, research, and training.

The Computing Facilities

The Department of Computer Science maintains its own Computer Center. The Center consists of six major laboratories and a well-equipped server center. The laboratories include a Robotics Lab, Information Assurance and Cyber Security Lab, Innovation Lab, Upperclassmen Lab, Freshmen Lab and a Computer Literacy Lab. The Freshmen and Upperclassmen Laboratories are available to students from 6:00 a.m. to 12:00 midnight daily including weekends.

Research Activity

Research in computer science is focused in the areas of Artificial Intelligence, Software Design, Data Science, Networking, and Parallel Processing. Supporters of these interests include the National Science Foundation, NASA-Langley Research Center, the Office of Naval Research, the Department of Defense, the National Security Agency, and the Department of Homeland Security.

Affiliations

The Department sponsors a certified student chapter of the Association for Computing Machinery (ACM). Membership (local and

national) is open to all full-time Computer Science or Computer Information Systems or Cyber Security – Computer Science majors. The Department also sponsors Upsilon Pi Epsilon (Computer Science honor society) for all Computer Science or Computer Information Systems or Cyber Security – Computer Science majors with a GPA of 3.0 or above. Any student having completed 64 semester hours of coursework (18 credit hours of core Computer Science courses) is eligible for induction into the society.

Scholarships/Financial Assistance

University scholarship/financial aid programs are provided for all qualified students who matriculate at Hampton. In addition, the Department of Computer Science offers:

1. Competitive partial scholarships under the National Science Foundation S-STEM Program;
2. Student Laboratory Monitors/Tutors;
3. Research positions with Computer Science faculty;
4. Government/corporate scholarships, when available.

The Computer Science Major

The computer science major is software-oriented and prepares the student for tasks involving the design, development, and maintenance of software in industry. It also provides the necessary quantitative background for graduate studies and/or employment in research-oriented institutions. The core courses involve close study of computer architecture, organization, and assembly languages, along with algorithm design, problem solving techniques, software design and development and structured programming concepts. After completing the core, students choose advanced courses of interest such as Artificial Intelligence, Object Oriented Programming, Automata, Data Science, and Data Communications to round out their computer science curriculum. The undergraduate computer science program is accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700. Social and ethical implications of computing are integrated into courses at all levels in the curriculum. Instructors are required to present topics applicable to the respective courses and to evaluate students on these issues.

Curriculum Outline – B. S. Computer Science

Freshman Year	**Semester**	**1st**	**2nd**
Mathematics 118*		3	-
Computer Science 151-152		4	3
English 101-102		3	3
History 106		3	-
Health Education 200 (or 2 PE)		2	-
University 101		1	-
Computer Science 120		-	3
Communication 103		-	3
Biology 103		-	4
Total		**16**	**16**
Sophomore Year	**Semester**	**1st**	**2nd**
Mathematics 151-152		4	4
Computer Science 204-205		3	3
Computer Science 215		3	-
Computer Science 251-252		3	3
Humanities 201,		3	-
Social Science 205		-	3
Psychology 203		-	3
Total		**16**	**16**
Junior Year	**Semester**	**1st**	**2nd**
Mathematics 305, 208		3	3
Physics 203-204		3	3
Physics Lab 215-216		1	1
Computer Science 301, 308		3	3
Computer Science 382, 570		3	3
Technical Electives		-	3
Total		**13**	**16**
Senior Year	**Semester**	**1st**	**2nd**
Computer Science 404-405		3	3
Computer Science 425		3	-
Computer Science 510		3	-
Computer Science Electives		-	6
Computer Science Advanced Electives		-	6
English 218		3	-
Total		**12**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

**Any student not qualifying for MAT 118 (Precalculus II) must start at the appropriate level of mathematics. Majors must earn a grade of "C" or better in each computer science, biology, mathematics and physics course.*

***Advanced Computer Science Electives include three (3) approved courses from the 300-500 Computer Science sequence. Excluded are CSC 300, 323, 325, 391, 410, 411, 421, 425, 491, and any advanced programming language course.*

****Technical electives must be approved by the advisor and/or chair.*

Computer Science Minor Requirements:

The Computer Science minor requires 19 credit hours as listed below. The remaining three credits may be chosen from other selected 300 level or above (see catalog for approved courses). The recommended sequence is as follows:

Freshman Year	**Semester**	**1st**	**2nd**
Computer Science 151-152		4	3
Sophomore Year	**Semester**	**1st**	**2nd**
Computer Science 251		3	-
Junior Year	**Semester**	**1st**	**2nd**
Computer Science 204		3	-
Senior Year	**Semester**	**1st**	**2nd**
Computer Science 215		3	-
Computer Science elective (300 level or higher)		-	3

The Computer Information Systems Major

This computer information system major is systems-oriented and prepares the student for tasks involving all aspects of business information systems. Students are prepared to provide the link between users in everyday business situations and the technical world of computers. These students take the same core courses as Computer Science majors. In addition, they take Data Communications, Database Management, and additional programming language (e.g., C++). Advanced requirements are courses related to the definition, design, construction, and management of information systems. Requirements in related areas focus on commercial topics and include courses in mathematics, economics, management, accounting, finance, and marketing.

Curriculum Outline – B. S. in Computer Information Systems

Freshman Year	Semester	1st	2nd
Mathematics 130*		3	-
Computer Science 151-152		4	3
English 101-102		3	3
History 106		3	-
Health Education 200 (or 2 PE)		2	-
University 101		1	-
Computer Science 120		-	3
Communication 103		-	3
Biology 103		-	4
Total		**16**	**16**

Sophomore Year	Semester	1st	2nd
Computer Science 204-205		3	3
Computer Science 215		3	-
Computer Science 251-252		3	3
Computer Science 2XX (Programing Elective)		-	3
Humanities 201		3	-
Psychology 203		-	3
Science 104		3	-
Economics 201		-	4
Total		**15**	**16**

Junior Year	Semester	1st	2nd
Computer Science 301, 308		3	3
Computer Info. Systems 310, 320		3	3
Computer Science 382, 570		3	3
Economics 202		-	3
Mathematics 205		3	-
Accounting 203		3	-
Finance 304		-	3
Total		15	15

Senior Year	Semester 1st	2nd
Computer Science 404-405	3	3
Computer Science 425	3	-
Computer Science 571	3	-
Computer Info. Systems 410	3	-
Computer Science Adv Elective**	-	3
English 218	3	-
Management 305	-	3
Marketing 305	-	3
Total	**15**	**12**
TOTAL CREDITS FOR GRADUATION		**120**

**Any student not qualifying for MAT 130 (Calculus) must start at the appropriate level of mathematics. Majors must earn a grade of "C" or better in each computer science, Computer Information System, biology, mathematics and physics course.*

***Advanced Computer Science Elective includes any approved courses from the 300-500 Computer Science sequence. Excluded are CSC 300, 323, 325, 391, 410, 411, 421, 425, 491, and any advanced programming language course.*

Minor in Computer Information Systems

The Computer Information Systems minor requires 19 credit hours as listed below. The recommended sequence is as follows:

Freshman Year	Semester	1st	2nd
Computer Science 151-152		4	3
Computer Science 251		3	-
Computer Science 570		-	3

Junior Year	Semester	1st	2nd
Computer Information Science 310		3	-
Computer Science 571		3	-

The Cyber Security Major – Computer Science Track

The Bachelor of Science in Cyber Security – Computer Science Track (B.S. in Computer Science Cyber Security, CYS) focuses on providing a broad interdisciplinary information assurance and cyber security education that prepares graduates to successfully defend, protect, design, implement and maintain secure information and information systems. Graduates of the B.S. degree program in Cyber Security – Computer Science track have the prerequisite expertise to: (1) Function in the world-at-large as productive and ethical professionals and as responsible citizens. They will have a very good understanding of ethical issues and their applications. (2) Understand and employ current trends and adapt to advances in the technology of the Information Assurance and Cyber Security profession. (3) Develop and implement security strategies to improve the security posture of organizations. (4) Work in teams, to apply theoretical and analytical methods and principles of software development to address security issues in software development. (5) Apply techniques, methodologies, tools and skills to build high-quality security systems that function effectively and reliably in the emerging information infrastructure. and (6) Communicate effectively, both orally and in writing, with other security and computing professionals. The B.S. in Computer Science Cyber Security (B.S. in CYS) program is designed for prospects with an interest in computer science and technology with focus in cyber security and information assurance as well as criminal justice processes.

Curriculum Outline - B. S. in Cyber Security - Computer Science Track

Freshman Year	Semester	1st	2nd
Mathematics 130		3	-
Computer Science 151-152		4	3
English 101-102		3	3
History 106		3	
Computer Science 120		-	3
Health Education 200 (or 2 PE)		2	-
Communication 103		-	3
University 101		1	-
Biology 103		-	4
Total		**16**	**16**

Sophomore Year	Semester	1st	2nd
Computer Science 204-205		3	3
Computer Science 215		3	-
Computer Science 251-252		3	3
Sociology 205 - 215		3	3
Psychology 203		-	3
Humanities 20, Science 104		3	4
Total		**15**	**16**

Junior Year	Semester	1st	2nd
Computer Science 301, 308		3	3
Cyber Security 382, 323		3	3
Criminal Justice 409, 305		3	3
Mathematics 205		3	-
Cyber Security 485		-	3
English 218		3	-
Computer Science 570		-	3
Total		**15**	**15**

Senior Year	Semester	1st	2nd
Computer Science 404-405		3	3
Computer Science 425		3	-
Computer Science 571		3	-
Cyber Security 475, 470		3	3
Computer Science Adv Elective**		-	3
Criminal Justice 411, 416		3	3
Total		**15**	**12**
TOTAL CREDITS FOR GRADUATION			**120**

**Any student not qualifying for MAT 130 (Calculus) must start at the appropriate level of mathematics. Majors must earn a grade of "C" or better in each computer science, Cyber Security, biology, mathematics and physics course.*

***Advanced Computer Science Elective includes any approved courses from the 300-500 Computer Science sequence. Excluded are CSC 300, 323, 325, 391, 410, 411, 421, 425, 491, and any advanced programming language course.*

Information Assurance and Cyber Security Program

The Information Assurance and Cyber Security topics are integrated into the undergraduate curriculums offered within the Department of Computer Science: Computer Science and Computer Information Systems. These curriculums reflect existing advanced technology and provide Hampton University students with knowledge of state-of-the-art computer security and information assurance technology. Information Assurance and Cyber Security is one of the most important areas in Information Technology, computing and general high technology areas. All three curricular (Computer Science, Computer Information Systems and Cyber Security – Computer Science) meet the Center of Academic Excellence in Cyber Defense Education (CAE-CDE) Program, jointly sponsored by the National Security Agency (NSA) and the Department of Homeland Security (DHS).

A student must complete the following courses in order to receive a certification of completion for the CAE-CDE program: CSC 120, CSC 151, CSC 152, CSC 251, CSC 252, CSC 301, CSC 308, CSC 382, CSC404, CSC 405, CSC 570, CSC 571, and statistics course (either MAT 205 or MAT 305), which is inclusive to their selected curricular.

Master of Science in Computer Science

The Master of Science in Computer Science program is an advanced degree designed to provide students with the knowledge and skills necessary to hold professional positions oriented toward software design. Graduates of the M.S. degree program in Computer Science have the requisite expertise to: (1) Function in the world-at-large as productive and ethical professionals and as responsible citizens. (2) Understand and employ current trends and adapt to advances in current fields of technology. (3) Develop and implement software strategies and methodologies. (4) Work in teams, to apply theoretical and analytical methods and principles for software tools and development. (5) Apply techniques, methodologies, tools and skills to build high-quality systems that function effectively and reliably in the emerging information infrastructure. (6) Communicate effectively, both orally and in writing, through research engagement with other computing professionals and organizations. Further detail is provided in the Graduate College section of this catalog.

Master of Science in Cyber Security

The Master of Science in Cyber Security focuses on providing a broad interdisciplinary information assurance and cyber security education that prepares graduates to successfully defend, protect, design, implement and maintain secure information and information systems. Graduates of the M.S. degree program in Cyber Security have the requisite expertise to: (1) Function in the world-at-large as productive and ethical professionals and as responsible citizens. (2) Understand and employ current trends and adapt to advances in the technology of the Information Assurance and Cyber Security Profession. (3) Develop and implement security strategies to improve the security posture of organizations. (4) Work in teams, to apply theoretical and analytical methods and principles of software development to address security issues in software development. (5) Apply techniques, methodologies, tools and skills to build high-quality security systems that function effectively and reliably in the emerging information infrastructure. (6) Communicate effectively, both orally and in writing, with other security and computing professionals. Further detail is provided in the Graduate College section of this catalog.

Department of Marine and Environmental Science

An interdisciplinary major in Marine and Environmental Science (MES) is offered through the Hampton University Center for Marine and Coastal Environmental Studies, with the conferral of the Bachelor of Science in Marine and Environmental Science. The major program is drawn from the disciplines of marine and environmental sciences, biology, chemistry, geology, physics and mathematics. Students may transfer into the program at any time during the first two years of undergraduate training in another science major.

The Center is housed within a waterfront building with five faculty research laboratories: marine biotechnology, ecology/plankton, microscopy, fisheries and geology teaching laboratory, a student research laboratory, an electronic SMART classroom, electronic conference room and faculty offices. There are two research vessels that support academic and research activities. The R/V Aquaria III, a 37-foot research vessel designed for trawling and handling of heavy sampling devices, and the Privateer, a 20-foot outboard vessel. A variety of smaller powerboats, canoes and kayaks are available to explore the small inlets and creeks in the area.

There is a core of required MES courses, and two basic areas of concentration in the degree program: marine science, and environmental science. The principal difference between the two areas of concentration is the selection of science-area electives during the junior and senior years. Marine and Environmental science courses are both offered through the Center, and the minor in Marine and Environmental Science combines both areas of concentration.

The principal objectives of the curricula are to (1) provide students with a variety of marine and environmental science courses and science electives (2) prepare students for research via the senior thesis courses and summer internships, and (3) prepare undergraduate students for graduate or professional schools

The courses in Marine and Environmental Science include laboratory and field components to provide hands-on experiential learning. One of the unique opportunities of the program is the multiple internship and research experiences that prepare students for a career in Marine and Environmental Science. Students have opportunities for national and international research through the UCLA-HU Diversity Program, for research abroad in Mo'orea, French Polynesia. Students can intern at Oregon State University, University of Maryland-Eastern Shore and Center for Environmental Sciences, Savannah State, Institute of Marine and Environmental Technology, NOAA Science Centers, Scripps Institute of Oceanography, Woods Hole Oceanographic Institute, Virginia Institute of Marine Science, Virginia Tech's Seafood Agricultural Research and Extension Center, and many other partner institutions.

Our students receive financial support to conduct research throughout the academic year and summers as scholars in our NOAA-Living Marine Resources Cooperative Science Center. Students who conduct research can also receive financial support to attend the Association for the Sciences of Limnology and Oceanography (ASLO) national and international conferences each year, through our ASLO-Multicultural Program.

Graduation Requirements

All biology, chemistry, computer science, marine and environmental science, mathematics and physics courses listed in the Curriculum outline below must be completed with a grade of "C" or better. The following courses are considered as the major area of study and are counted for departmental honors: MES 102, 130,131 201, 210, 304, 311, 351, 404, 405, 408, 452, and 510

Curriculum Outline - B. S. Marine and Environmental Science

Freshman Year	**Semester**	**1st**	**2nd**
Marine & Environmental Science 130		3	-
Marine & Environmental Science 131		1	-
Marine & Environmental Science 102		-	4
Biology 105 -106		4	4
English 101-102		3	3
History 106/Oral Communication 103		3	3
Social Science Elective		-	3
Physical Education Activity		1	-
University 101		1	-
Total		**16**	**17**
Sophomore Year	**Semester**	**1st**	**2nd**
Marine & Environmental Science 201		4	-
Marine & Environmental Science 210		3	-
Chemistry 201-202		4	-
Mathematics 151-152		4	4
Humanities Elective I-II		3	3
Social Science Elective		-	3
Physical Education Activity		1	-
Total		**16**	**17**
Junior Year	**Semester**	**1st**	**2nd**
Marine & Environmental Science 452		4	-
Marine & Environmental Science 408		-	3
MES/SCI/MAT Elective		3	3
Marine & Environmental Science 304		1	-
Chemistry 301-302		4	4
Physics 203-204		3	3
Physics 215-216		1	1
Total		**15**	**15**
Senior Year	**Semester**	**1st**	**2nd**
Marine & Environmental Science 404/405		3	3
Marine & Environmental Science 510		3	-
Marine & Environmental Science 351		3	-
Marine & Environmental Science 311		3	-
MES/SCI/MAT Elective		2	4
MES/SCI/MAT Elective		-	3
Total		**13**	**13**
TOTAL CREDITS FOR GRADUATION			**120**

MES/SCI/MAT Electives must be 200-level or higher, or an advisor approved 100-level course. These electives can be taken through our Consortium with Old Dominion University, William & Mary, and Christopher Newport University.

Minor in Marine and Environmental Science

The Marine and Environmental Science minor requires 18 credit hours. Eight of these hours are fulfilled with the required courses:

MES 102 Introduction to Earth and Ocean Systems
MES 130 Introduction to Environmental Science
MES 131 Laboratory Techniques in Environmental Science

The remaining ten hours result from the selection of the following courses:

MES 201 Biodiversity
MES 210 Biometry
MES 311 Green Technology
MES 351 Chemical and Physical Oceanography
MES 408 Resource Management
MES 452 Marine Ecology
MES 510 Environmental Toxicology

Or selection from required electives (see list on MES curriculum)

This minor will prepare graduates with sufficient scientific content and experience in the areas of marine and environmental science to pursue related disciplines in graduate school or the workforce. The recommended sequence is as follows:

Minor Sequence: Marine and Environmental Science (18 hours)

Freshman Year (Required)	**Semester**	**1st**	**2nd**
MES 130		3	-
MES 131		1	-
MES 102		-	4
Sophomore Year (Select One)	**Semester**	**1st**	**2nd**
MES 201		4	-
MES 210		-	3
Junior Year (Select One)	**Semester**	**1st**	**2nd**
MES 452		4	-
MES 408		-	3
Electives		3	3

Senior Year (Select One)	Semester	1st	2nd
MES 311		3	-
MES 510		3	-
MES 351		-	3
Electives		3	3
TOTAL CREDITS FOR GRADUATION			**18**

Department of Mathematics

The Department of Mathematics offers programs leading to the Bachelor of Science degree in Mathematics and the Master of Science degree in Applied Mathematics. The major objective of the Department is to offer courses and programs which:

1. enable students to develop a mastery of reasoning and analytic processes;
2. enable students to develop appreciation for, understanding of, and skill in, practical applications of mathematics;
3. assist students in developing a broad, thorough and comprehensive mathematical base for a career in the mathematical sciences;
4. prepare students to pursue successful graduate study; and
5. prepare students in the Master's in Teaching in Mathematics sequence to become excellent teachers of mathematics.

The Department adheres to the admissions requirements established by the University Admissions Office. Entering freshmen will be placed into an appropriate mathematics course. Courses below MAT 151 cannot be used towards the mathematics major requirements. Students who major in mathematics should plan their schedule in consultation with a faculty advisor.

The requirements for a mathematics major include the following mathematics courses: MAT 151, 152, 206, 208, 224, 251, 260, 310, 311, 312, 320, 324, 330, 340, 416, 417, 425, 426, 427, 428, 431, plus two mathematics electives (Mathematics courses level 300 or above except MAT 300, 305, 323, 360, 423, 424, 420/520, 421/521, 422/522) and two technical electives (approved by the department). Also required are six (6) credit hours in computer science at the level of CSC 151 and above, and eight (8) credit hours in physics (PHY 203, 204, 215, and 216). Majors must earn a grade of "C" or better in each required mathematics, science or technical elective course.

Mathematics Minor Requirements

To earn a minor in mathematics students must earn 24 credit hours in mathematics. The course requirements for a mathematics minor include the following courses: MAT 151, 152, 251, plus four more mathematics courses chosen from 206, 208, 260, 305, 310, 315, 320, 330, 403, 411, 416, 417, 430, 431, 445 and 450.

Students who plan to minor in mathematics should plan their schedule in consultation with a faculty advisor from Mathematics Department. Minors must earn a grade of "C" or better in each math course. At least 12 credit hours of the minor courses must be taken at Hampton University.

Curriculum Outline – B.S. Mathematics

Freshman Year	Semester	1st	2nd
Communication 103		-	3
English 101-102		3	3
History 106		3	-
Humanities 201		-	3
Mathematics 151*-152		4	4
Natural Science**		3	-
Psychology 203		-	3
Sociology 205		3	-
University 101.		1	-
Total		**17**	**16**

Sophomore Year	Semester	1st	2nd
Computer Science 151 or above		4	3
Free Elective		-	2
Health 200 or 2 Physical Education		-	2
Humanities Elective		3	-
Mathematics 206-208		3	3
Mathematics 224		2	-
Mathematics 251-260		4	3
Technical Elective***		-	3
Total		**16**	**16**

Junior Year	Semester	1st	2nd
Mathematics 310, 320		3	3
Mathematics 311-312		3	3
Mathematics 324		2	-
Mathematics 330-340		3	3
Mathematics Elective****		-	3
Mathematics 224		2	-
Physics 203-204		3	3
Physics 215-216		1	1
Total		**15**	**16**

Senior Year	Semester	1st	2nd
Free Elective		-	3
Mathematics 416-417		3	3
Mathematics 425-426		1	1
Mathematics 427-428		2	2
Mathematics 431		-	3
Mathematics Elective****		3	-
Technical Elective***		3	-
Total		**12**	**12**
Total Credits for Graduation			**120**

**Mathematics placement is dependent upon the student's preparation.*

***Natural Science course to be chosen from APS 101/102/105/106, BIO 101/103, CHE 101, MES 110/130, SCI 102/104/203.*

**** Technical Electives: Following or higher courses in their sequence BIO 210, CHE 201, CSC 152, EGR 208, FIN 413, MAS 310, MAT 315 (excluding MAT 420/520, 420/521, 422/522 or a research course), MKT 305, NAV 201, PHY 205, or courses approved by student's advisor and department chairperson.*

*****Mathematics Electives must be chosen from 300, 400 and 500 level mathematics courses, excluding MAT 300, 305, 323, 360, 423, 424, 420/520, 421/521, 422/522, and the required courses listed above.*

Graduate Program in Applied Mathematics

The Mathematics Department offers graduate courses leading to the Master of Science degree in Applied Mathematics. The graduate program in Applied Mathematics prepares the successful candidate to pursue a Ph.D. program or assume immediate employment in business, industry or government. To meet these goals, the program is designed to provide opportunities for advanced study and research in the application of mathematical methods to real world problems. The primary research interests of the graduate faculty include stochastic processes, time series, applied statistics, computational fluid dynamics, discrete mathematics, numerical analysis, operator theory, scientific computing, functional analysis, and controlled thermonuclear fusion. The major course offerings consist of topics such as numerical analysis, differential equations, stochastic processes, nonlinear dynamics, nuclear fusion, and statistics. The prospective student should bear in mind that the utility of a mathematician in the job markets lies in his/her ability to view problems from a novel vantage point and to distill those few fundamental mathematical aspects of the problem which ultimately hold the key to its solution. Further detail is provided in the Graduate College Section of this catalog.

Department of Naval Science (NROTC)

The primary mission of the Department of Naval Science is to provide professional and leadership instruction to students who desire to serve as commissioned officers in the United States Navy or United States Marine Corps.

The NROTC program consists of two courses of instruction: the four-year program and the two-year program. Both apply to scholarship and non-scholarship (college program) students.

The four-year college program is divided into a two-year basic course and a two-year advanced course. The basic course is normally pursued by NROTC midshipmen during their freshman and sophomore years. While most freshmen begin the basic course during the fall, it is possible to enter the program in the spring semester.

The two-year NROTC program is extended to students who do not participate in NROTC during their freshman and sophomore years. Applications to join must be submitted during the sophomore year. If accepted for an unaffiliated scholarship, students will become a member of the unit upon acceptance and will be required to meet all NROTC standards and requirements.

Summer Training

The Naval Science Institute (NSI), located at the Naval Education and Training Center in Newport, Rhode Island, offers an intensive six-week program in the summer for rising juniors who are unable to attend the first two years of Naval Science courses on campus. Successful attendance at NSI enables a student to be eligible for NROTC programs.

Scholarship recipients supplement classroom instruction with an at-sea training period each summer. College program students supplement classroom instruction with at-sea training during the summer between their junior and senior years. Similarly, Marine Corps option students attend the six-week Marine Officer Candidate School at Quantico, Virginia during the summer between junior and senior years.

Nuclear Option

Students interested in entering the Navy's nuclear power program should have a college grade point average greater than 3.00. While any major is acceptable, all applicants must have completed at least two semesters of calculus (MAT 151 and MAT 152, or equivalent) and two semesters of calculus-based physics (PHY 203 and PHY 204). Those students with a major in science, math, or engineering are most desirable.

Naval ROTC Scholarships

NROTC scholarships are available to outstanding midshipmen who are highly motivated for active duty careers in either the United States Navy or the United States Marine Corps.

Four-year scholarships are awarded each year to high school seniors on the basis of nationwide competition. In addition, each year some outstanding students at Hampton are awarded scholarships for the remainder of their normal academic program. These scholarships may be awarded at the completion of the freshman or sophomore years.

Each scholarship pays for the student's tuition, academic-related fees, a textbook stipend, and a

$250-$400 per month subsistence allowance. The Navy ROTC also sponsors the College Program for non-scholarship students. This program offers a $300 per month stipend beginning in the junior year.

Naval Military Leadership Minor Requirements

The minor in Naval Military Leadership is a high quality, interdisciplinary, multidimensional, experiential, and culturally diverse program that exposes students to, and prepares them for, real life leadership opportunities and challenges. Students explore issues of leadership, citizenship, and social change within the context of an inquiry, experiential, and competency-based instructional design. The minor is open to all students who have completed the prerequisite courses.

The Naval Military Leadership minor requires students to have a minimum overall cumulative GPA of 2.00 in all courses specified as a requirement.

To earn a minor in Naval Military Leadership students must complete the following courses:

Naval Science† 101; NAV 102 (or History 205); NAV 301or NAV 310, NAV 302 or 410; NAV 401, NAV 402 or LEA 301; and one of the following: CRJ 411, CRJ 416, CRJ 418, HIS 222, HIS 410, POL 304, POL 307, or POL 430.

†The Naval Science Institute can substitute for NAV courses. Students who are entering an officer commissioning program at Hampton University and have prior Navy enlisted service are required to attend the Naval Science Institute in Newport, RI before starting college. While at the Naval Science Institute students are required to take NAV 101, 102, 201, 202, 301, and 302. Due to this fact, students will receive Hampton University school credit for these courses so that they may count towards the minor in Naval Military Leadership. Students must provide an official transcript from the Naval Science Institute and a letter from the Hampton University Naval ROTC Officer-in-Charge stating what the purpose of the official tran-

script is and complete the Hampton University form for receiving school credit for courses taken at another educational institution.

Naval Science courses have been approved for academic credit for the General Education Sequence as follows:

History:

Naval Science 102 / History 205 (NAV 102 / HIS 205) to be used as an alternative to HIS 105 or HIS 107.

Health and Physical Education:

Naval Science Laboratories (NAV 111, 112, 211, 212, 311, 312, 411 and 412) are to be used as an alternative to physical education activities.

Junior year Naval Science Laboratories (NAV 311 and 312) are to be used as an alternative to Health Education (HEA 200).

The course substitutions listed above may not be granted for students who leave the program prior to completion of their junior year.

Curriculum Outline – NROTC (Navy Option)

Freshman Year	**Semester**	**1st**	**2nd**
Naval Science 101		2	-
Naval Science 102/History 205		-	3
Naval Science 111-112		1	1
Total		**7**	**8**
Sophomore Year	**Semester**	**1st**	**2nd**
Naval Science 401		2	-
Naval Science 201		-	3
Naval Science 211 - 212		1	1
Mathematics 151 - 152*		4	4
Total		**7**	**8**
Junior Year	**Semester**	**1st**	**2nd**
Naval Science 202 - 301		3	3
Naval Science 311- 312		1	1
Physics 203 - 204**		3	3
Physics 215 - 216**		1	1
Total		**8**	**8**
Senior Year	**Semester**	**1st**	**2nd**
American Military History***		3	-
Cultural Awareness/Regional Studies***		-	3
Naval Science 302 - 402		3	2
Naval Science 411- 412		1	1
Total		**7**	**6**
TOTAL CREDITS FOR GRADUATION			**59**

Note: Naval ROTC students may choose any major course of study. Technical majors are preferred. Naval ROTC students also complete swim training and summer cruise training prior to graduation.

**Scholarship students must complete Calculus II by the end of their second year in the program. College Program students must complete six (6) hours of MAT 109 and higher by the end of the junior year.*

***Scholarship students must complete Calculus based Physics I and II by the end of the junior year. College Program students must complete six (6) hours of any physical science courses by the end of the senior year.*

****Authorized courses are HIS 222 or 410, or POL 304, 307, or 350, or as authorized per current NROTC program curriculum.*

Curriculum Outline - NROTC (Marine Option)

Freshman Year	**Semester**	**1st**	**2nd**
Naval Science 101		2	-
Naval Science 102/History 205		-	3
Naval Science 111-112		1	1
Total		**3**	**4**
Sophomore Year	**Semester**	**1st**	**2nd**
Naval Science 211- 212		1	1
Naval Science 310		-	3
Naval Science 401		2	-
Total		**3**	**4**
Junior Year	**Semester**	**1st**	**2nd**
Naval Science 311- 312		1	1
Naval Science 410		3	-
Total		**4**	**1**
Senior Year	**Semester**	**1st**	**2nd**
American Military History*		3	-
Naval Science 402		-	2
Naval Science 411- 412		1	1
Total		**4**	**3**
TOTAL CREDITS FOR GRADUATION			**26**

**Authorized courses are HIS 222 or 410, or POL 304, 307, or 350, or as authorized per current NROTC program curriculum.*

Department of Physics

The Department of Physics offers courses leading to the degrees of Bachelor of Science, Master of Science and Doctor of Philosophy in Physics. Details about the graduate programs are provided in the Graduate College section of this catalog. The Bachelor of Science degree program is designed to prepare students for graduate studies in physics and the workforce. Entering students who are not placed in the calculus sequence will follow a modified sequence and may require additional time to complete the selected program of study. The Department is located in the Olin Building for the academic programs and has well-equipped laboratories for the undergraduate and graduate programs at several locations. Physics faculty, staff, and students conduct research on-campus in the Graduate Physics Research Center, Olin Engineering Building, Research II Building, Fountain Research Building, and Hampton University Cancer Research Center and off-campus at the Thomas Jefferson National Laboratory, NASA Langley Research Center, and other national and international research institutions. Undergraduate physics majors are encouraged to participate in the current research programs, conduct research and publish findings.

Courses listed below that are offered through the School of Science must be passed with at least a "C" grade, specifically, biology, chemistry, computer science, mathematics, physics, and the technical electives.

Physics Minor Requirements:

The physics minor requires at least 21 credit hours. Students must complete the following courses: Physics 203, 215/230, 204, 216/231, 211, 330.

In addition, the student must choose at least three elective courses from the following list of courses: Physics 212 and 331, 205 (or APS 205), 301, 312, 501, 505. Other suitable courses may be substituted for elective courses with approval of the chair.

Curriculum Outline – Physics

Freshman Year	**Semester**	**1st**	**2nd**
English 101, 102		3	3
Mathematics* 151, 152		4	4
University 101		1	-
HIS 106, HUM 201		3	3
Physics 110		1	-
Physics 203 (H), 204 (H)		3	3
Physics 230, 231		1	1
HEA 200 or 2 P.E.		-	2
Total		**16**	**16**
Sophomore Year	**Semester**	**1st**	**2nd**
Chemistry 201		-	4
Communication 103		3	-
Mathematics 251, 260		4	3
Physics 210, 217		1	1
Physics 211, 212		3	3
Physics 220, 221		2	2
Physics 330, 331		1	1
Psychology 203		-	3
Total		**15**	**16**
Junior Year	**Semester**	**1st**	**2nd**
Free Electives		3	3
Sociology 205, Elective		3	3
Physics 301, 302		3	3
Physics 310, 317		1	1
Physics 312		-	3
Technical Electives***		3	3
Total		**13**	**16**
Senior Year	**Semester**	**1st**	**2nd**
Physics 410, Free Elective		1	3
Physics 501, 502		3	3
Physics 505, 506		3	3
Technical Electives**		6	6
Total		**13**	**15**
TOTAL CREDITS FOR GRADUATION			**120**

**Mathematics placement is based upon the student's academic preparation.*

***See the section on General Education for alternatives to HUM 202.*

****Technical Electives include any elective course above the required entry level in atmospheric and planetary science, aviation, biology, chemistry, computer science, education, engineering, marine science, mathematics, naval science, and physics.*

(H) The Honors section of PHY 203-204 is required, if available during the first year of study.

Department of Physical Therapy

The Department of Physical Therapy offers an entry-level Doctor of Physical Therapy degree program (DPT). The Physical Therapy Program is designed to prepare physical therapists at an entry - level who exhibit the diagnostic and evaluative skills necessary for autonomy and competence in therapeutic interventions. In addition, the curriculum goals emphasize the acquisition in skills related to critical inquiry, communication, and sensitivity to diversity, planning for self-growth and understanding, management in the healthcare environment, and application of ethical principles and values. Further detail on this program is provided in the Graduate College section of this catalog.

Williams R. Harvey Leadership Institute

The William R. Harvey Leadership Institute offers the undergraduate student a curricular option that enhances the University experience. It is an intensive, interactive program designed to develop entry-level leaders with the character and integrity to ethically lead and serve. The program focus is the pragmatic and ethical application of knowledge and skills required to effectively follow and lead. A pivotal component of the program is 400 hours of applied experience in a public service organization. The Program focus includes:

- Critical thinking
- Problem-solving
- Ethical decision-making
- Effective communication
- Team-building
- Conflict resolution
- Policy development
- Service learning

Students selected for the program are designated Leadership Fellows and are eligible for a grant from the University. A minor in Leadership Studies is earned upon successful completion of the eighteen credit hour curriculum.

Selection Requirements

Selection is through a competitive process and is based on demonstrated leadership and community service. Candidates may apply upon notification of acceptance to the University.

Additional Requirements

- Participate in Institute workshops
- Participate in campus organizations
- Seek leadership roles in campus and community organizations
- Assist in planning and coordinating Institute activities

Leadership Studies Minor Requirements:

The Leadership Studies Minor requires 18 credit hours as follows.

Freshman Year	**Semester**	**1st**	**2nd**
Leadership 201, 202		2	2
Total		**2**	**2**
Sophomore Year	**Semester**	**1st**	**2nd**
Leadership 302, 304		2	2
Leadership 305 (or 303 Junior Year		-	1
Total		**2**	**3**
Junior Year	**Semester**	**1st**	**2nd**
Leadership 301		3	-
Leadership 305 (or 303)		2	(3)
Total		**5**	**(3)**
Senior Year	**Semester**	**1st**	**2nd**
Leadership 400, 401		2	2
TOTAL		**2**	**2**
TOTAL CREDITS FOR GRADUATION			**18**

Freddye T. Davy Honors College

Honors at Hampton University is a program that is designed to augment, enhance, and extend the undergraduate academic experience through community, exposure and expectations. There are two distinct categories of honors programs. The first category is for students who take the initiative to apply. The Honors College is the primary component of this category. The second category, the Honors Program, is for students who are offered scholarships and/or awards from the Office of Admissions based upon prior achievement.

As the primary component of Hampton University's Honors Program, the Freddye T. Davy Honors College offers a curricula option that enhances the regular university experience. Its focus is the development of intellectual, ethical leadership skills while fostering excellence in education, commitment to the learning process, experimentation, and a sense of a learning community. It includes

1) Innovative Curriculum
2) Individualized Advising and Support Service
3) Special Options, Opportunities and Financial Incentives
4) Extracurricular Activities

Freddye T. Davy Honors College Option Requirements

Admission Requirements

Students who have earned a grade point average (GPA) of 3.2 or higher at Hampton University are eligible to apply to Freddye T. Davy Honors College (FTDHC).

Scholastic Performance

A student in FTDHC is required to maintain a minimum GPA of 3.2.

The Curriculum

A student, in the course of completing the requirements for the major, will complete the following:

- 12 hrs. honors credit in General Education Courses
- 12 hrs. honors credit in major courses
- Ethics (Philosophy 304)
- Argumentation and Debate or Logic (Speech Communication 323 or Philosophy 210)
- A minimum of five (5) University Honors seminars.

Other Program Requirements

In addition to the course requirements, a student in Honors College is expected to:

- Perform at least 150 hours of community service.
- Serve on an HC committee for at least one semester.
- Participate in an honors conference experience.
- Take the appropriate exam for graduate study.

Honors College students are encouraged to pursue an off-campus experience, i.e. study abroad, university exchange, internship/co-op opportunities.

Honors Program Option

Academic Scholarship Awards are made annually. Each is renewed for six additional semesters of study based on the stu- dent maintaining a 3.3 cumulative grade point average. Students are selected for exceptional performance as measured by SAT or ACT scores, high school academics and demonstrated involvement in school leadership activities.

Scholastic Performance

A student in the Academic Scholars Option is required to maintain a minimum GPA of 3.3.

The Curriculum

A student in the course of fulfilling the requirements for the major, will also complete:

- 10 hours honors credit in General Education courses
- Participate in at least one designated honors "activity" each semester

Other Program Requirements

In addition to the course requirements, a student in the Academic Scholars Option is expected to:

- Perform at least 200 hours of community service
- Take the appropriate exam for graduate study
- Pursue an off-campus experience, i.e. study abroad, university exchange, internship/co-op opportunities

Hampton University Online

Online education is a basic component of lifelong personal and intellectual development for many individuals. Hampton University Online administers all online degree programs at Hampton University. Because Hampton University Online is the newest educational unit at Hampton University the material in this catalog may not be complete. The reader is directed to seek updated information from the website (http://huonline. hamptonu.edu/). Lifelong educational opportunities are provided in support of Hampton University's mission to serve students with diverse national, cultural and economic backgrounds. Graduate degree programs are coordinated with the Graduate College and provide educational opportunities to all students, those with outstanding undergraduate education, as well as those with other levels of academic preparation. A supportive and stimulating environment is maintained in which programs are designed to:

1. provide for the development of professional skills both at the entry level and at the advanced level of personal and professional development;
2. provide continuing and professional education to various segments, including undergraduates seeking immediate entry to graduate school, members of the community in professional, technical, managerial and other occupations; and,
3. provide direction and assistance to all areas in the university for the development of research and operation of graduate courses and programs.

Contact Information:

Main Campus:
Hampton U Online
P. O. Box 6227
Hampton, VA 23668
(757) 788-8968 (757) 224-0397 (fax)
huonline@hamptonu.edu

Academic Calendar

HU-ONLINE operates in a variety of sessions during the academic year. The predominant schedule operates as five eight-week sessions during a calendar year starting in August; however, other terms are available for selected programs. Consult the HU-ONLINE website for more information about course scheduling and availability.

Admissions

All applicants desiring admission to HU-ONLINE must have obtained a high school diploma or GED equivalent and be at least 18 years of age, or otherwise emancipated. Every candidate for admission must submit the following documents:

1. Application to HU-ONLINE and a $50.00 (nonrefundable) fee - no personal checks are accepted;
2. Official transcripts from all former colleges/universities (grade point average of 2.0 or better at previous colleges);
3. Official high school transcript or GED certificate;
4. Applicants requesting institutional academic credit for applicable life experiences must also submit a Life Experience Credits Assessment Form. Forms may be obtained from Hampton University Online

Active duty or retired military applicants must also submit one of the documents listed below:

- CCAF transcript for USAF
- AARTS for U.S. Army transcript
- SMART transcript for US NAVY/MARINES
- DD 214 for retired military
- DD 295 for all other services

Once a complete application is received and an admissions decision is made, the applicant will be notified in writing. The acceptance package will contain information about advisement and registration along with other necessary information to get started.

Medical Requirements Policy for Students*

*Note: Active Duty Military, Firemen, Emergency Medical Technicians and students enrolled in online programs are exempt from the University medical form requirement.

Special Students

Special students may be undergraduate or graduate students who apply for admission for specific undergraduate or graduate courses but are not enrolled in a certificate or degree program. Special students must present acceptable evidence of their ability to engage in academic work at the appropriate level of the course in which they will enroll. Admission into courses as a Special Student does not imply admission into a HU-ONLINE degree or certificate program. When a Special Student desires admission to a degree program, the student must meet the admissions requirements in effect at the time of application. Students must declare a major once 30 credit hours have been earned through HU-ONLINE.

All students who apply for the summer session must apply as a special student and submit a summer application. Students who plan to continue in the fall term must submit a regular admissions application.

Transfer Students

Students who have satisfactorily completed courses at an accredited institution may be admitted to regular standing with such advanced standing as their previous records may warrant.

Requirements for advanced standing are:

1. Satisfactory credit from previous colleges as shown on official transcripts.
2. Grade point average of "C-" or better at previous college(s).

3. Honorable dismissal from previous college(s). If students are suspended from any previous college, but eligible to return, they may be considered for enrollment at HU-ONLINE after the lapse of six months.No more than six (6) credit hours are transferable between HU-ONLINE and current students in the Undergraduate College (Hampton University). In unusual circumstances, students may, with the signed approval of their Dean, the Provost, and the President, be granted an exception to this policy. . *Active Duty Military students enrolled in HU-ONLINE are allowed to transfer up to 60 credit hours to the Undergraduate College (Hampton Students who have been separated from the Undergraduate College for more than three years may transfer up to 60 credit hours to HU-ONLINE.

Student Referrals from within Hampton University

It is not the purpose of HU-ONLINE to serve as a substitute for students who would normally be in full-time day programs at Hampton University. HU-ONLINE assumes that referrals from other University departments are for the following purposes:

1. To pursue their course of studies anytime via the ONLINE platform.
2. In response to a departmental request because:
   a) The student is a senior and cannot take the course on campus.
   b) The student could not complete the course on campus due to illness or other extreme emergency.

All referrals to HU-ONLINE from the Undergraduate College must have written approval of the Department Chair, the Dean, and the Provost.

Declaration of Major

Undergraduate students should declare a major program of study no later than the end of their freshman year or the completion of 30 semester hours of credit. A "Student's Petition Form for Declaration or Change of Major" must be filed in the Office of the Registrar for HU-ONLINE. Non-majors are ineligible for financial aid.

Dual Majors

Students who plan to graduate with dual majors must satisfy all requirements in each major, including all related courses with separate courses. The General Education sequence must be completed once. Students choosing dual major options are required to maintain at least a 2.5 GPA. In order to declare a dual major, students must be accepted as a major by both programs. They must complete all requirements in effect at the time of acceptance. Students who desire a dual major must file a dual major form with the Registrar for HU-ONLINE on or before the end of their sophomore year. Students who satisfy all graduation requirements for the dual major shall receive a single diploma listing both majors. To change from a dual major back to a single major requires the completion of a Change of Major/Minor form not later than the semester prior to graduation.

Second Baccalaureate Degree

Hampton University will permit a student to acquire a second baccalaureate degree, provided that he or she: (1) pursues an unrelated course of study; (2) meets all university, college, school, anddepartmental requirements (credits earned for the first degree may be applied, if suitable, toward the second degree); and (3), completes a minimum of 30 semester hours with HU-ONLINE that are beyond the requirements for the first degree. Prior to undertaking the second degree, the student must have his or her accumulated credits evaluated and the second-degree program approved in writing by the appropriate chair and dean.

**The student is responsible for initiating and coordinating any action relating to the programs, whether pursuing the two degrees concurrently or successively. Hampton University, as a rule, will not permit a student to pursue more than two baccalaureate degrees.

Advanced Placement

Recognizing the value of certain types of life experiences, Hampton University offers students an opportunity to receive academic credit for (1) skills validated by external examinations, (2) professional experience, and (3) military training.

Credit-By-Examination A student may request credit by examination for the purpose of validating knowledge of the material presented in a course. Only under compelling circumstances may a student, with the approval of his/her advisor and Dean, be granted permission to obtain credit by examination. Prior to processing the request, the "Application for Credit by Examination" form must be approved by the advisor. A copy of the completed examination must be filed with the appropriate dean. Credit by examination shall not be attempted for a course previously taken or failed by the student.

No student will be allowed over two examinations for credit per semester, up to a maximum of 30 credit hours per degree. No freshman student will be allowed to earn credit by examination for 300 or 400 level courses. Letter grades will not be given for credit by examination. The number of credit hours earned will be indicated on the student's transcript.

Credit Awarded through Non-Departmental Examinations

HU-ONLINE grants credits for acceptable performance on the College Board administered Advanced Placement Examination. A minimum score of 3 is required in all subject areas. Credit for CLEP and other examinations may be accepted by the University and applied to degree requirements with the approval of the major department and the department of the discipline in which the subject falls.

External Examinations

HU-ONLINE also participates in the College Level Examination Program (CLEP) of the College Entrance Examination Board (CEEB) and the Defense Activity for Non-Traditional Education Support (DANTES). The University accepts for credit both the general examinations and the subject examinations. The subject examinations, however, must be approved by the respective academic department of the university. Awarding of credit for CLEP will be based on recommendations of CEEB. Credit for DANTES will be based on recommendations of the American Council of Education (ACE). A

maximum of thirty credits will be accepted. Scores received from CLEP may not satisfy requirements for English 101 and English 102..

Credit for Life or Work Experience

Students should recognize that while many prior learning experiences are meaningful they are often not equal to the quality of knowledge learned in the college classroom. Therefore, students who seek academic credit for life or work experience must be able to clearly demonstrate and document that their experiences are equal in quality to the knowledge they would gain in the classroom. Credit for prior learning experience is awarded only for comparable courses required of the student's academic major.

The Application Process

1. Students who feel that their life or work experience should earn them academic credit are required to apply for consideration at entry into Hampton U Online. An application form must be completed and submitted to the student's academic advisor. A non- refundable $900.00 fee per course must be paid in advance.
2. Upon completion and approval of the application, students must obtain the Prior Learning Portfolio Student Information Guide. This publication is available from academic advisors and provides detailed information regarding the preparation and submission of the portfolio.
3. Students who successfully earn portfolio credit for life or work experience will receive a Pass designation and not a letter grade. A Pass designation does not contribute to the student's cumulative grade point average. If a portfolio has failed to earn passing credit it may not be resubmitted.

Students who are interested in additional information about life or work experience may refer to the Prior Learning Portfolio Student Information Guide.

Military Training

Veterans and active duty military personnel who have at least two years of honorable service are eligible for academic credit as a result of their military training and experience upon filing one, or more, of the following documents with the VA Certifying Official at HU-ONLINE

1. Community College of the Air Force transcript for the U. S. Air Force
2. AARTS transcript for U. S. Army
3. Navy transcript for U. S. Navy or Marines
4. DD Form 214, Certificate of Release or Discharge from Active Duty
5. DD Form 295, Application for the Evaluation of Learning Experiences During Military Service

In recognition of the contributions made by persons serving in the military, and also the extensive training in which they have engaged, HU-ONLINE grants the following academic exemptions to veterans:

1. A maximum of 2-semester hours credit in health education is awarded to all veterans and active duty military personnel.
2. A maximum of an additional 6-semester hours credit in social science is awarded to enlisted persons in grades E-1 through E-6. This credit may be used to fulfill the social science requirements, except for HIST 106 and 202.
3. Commissioned and Warrant Officers and Noncommissioned Officers in grades E-7 through E-9 are awarded an additional 3 semester hours credit in social sciences plus 3 semester hours in oral communications. Total credits may be increased upon additional evaluation of military training in accordance with the recommendations in the Guide to Evaluation of Educational Experience in the Armed Services (American Council on Education), commonly called the ACE guide.

Servicemembers Opportunity Colleges (SOC) HU-ONLINE participates in the Servicemembers Opportunity Colleges (SOC) Program. The Director of HU-ONLINE is the SOC representative for the University. The program allows a degree-seeking student to complete the majority of the academic requirements at an accredited institution around the world for transfer to the University. The student will receive a degree from HU-ONLINE. Additionally, the Director coordinates Hampton University undergraduate/graduate programs with the various academic departments. Students must complete thirty credit hours with HU-ONLINE in order to qualify for the SOC agreement.

Academic Policies and Regulations

HU-ONLINE enforces the academic policies and regulations of Hampton University. These include the Release of Information Policy, the Academic Probation and Academic Dismissal policies, Learning Disabilities Documentation, and the Student Grievance Procedure, as printed in the General Information section of the Catalog. Specific policies and regulations that apply to HU-ONLINE students are provided below for added emphasis..

The Grading System

The letter grading system ("A+" through "F") in the General Information section of the Catalog applies uniformly to all colleges and schools at Hampton University. HU-ONLINE also utilizes the following grades:

I Incomplete Work - Not applicable to cumulative grade point average (GPA). Student does not need to be enrolled to remove an "I" grade. The student will have a year to complete the "I" grade or the "I" will become an "F."

S Satisfactory at the "C" or higher grade (2.00) - Not computed in the cumulative GPA grade point average.

U Unsatisfactory - Not computed in the cumulative GPA grade point average.

WP Withdrew Passing - Not counted in cumulative average. WF Withdraw Failing - Not counted in cumulative average. Z Blank/ No grade submitted.

Calculation of Grade Point Average

The Grade Point Average (GPA) is computed by dividing the total number of grade points earned (also called quality points) by the total number of academic quality hours (QHRS) as presented in the General Information section.

Registration

Students must meet with their academic advisors to obtain their Personal Pin Number (PIN) and a Registration Advisement number in order to access the HUNET online registration system. Students must complete both the **online** and the **paper** registration process in order to be officially enrolled in a course. This includes course schedule changes (adding or dropping a course or changing a course section number, etc.).

Add/Drop Policy: The official period in which courses may be added and/or dropped begins the first day of the session and ends on the fifth day of the session.

Dropping a Class: A student must complete and sign a HU-ONLINE "Add/Drop" Form. This form must be approved by the student's academic advisor. Student must also drop the class online to finalize the drop process. The student is entitled to a full refund of tuition when a class is dropped in accordance with the instructions above.

Adding a Class: A student must complete and sign a HU-ONLINE "Add/Drop" Form. This form must be approved by the student's academic advisor. Student must also add the class online to complete the add process. The student will receive a statement of additional tuition due when a class is added except in a case where the student drops and adds classes of equal credit value.

Changing Grade Status: A student must also process a Add/Drop Form when changing grade status, (e.g., audit, regular grading,) and must process an Add/Drop Form to receive the new choice of grading. All changes in grading status must be processed within the period designated for Add/Drop.

Withdrawal

Once registered and once the Add/Drop date has passed, students may withdraw from a course or courses up until the last day of classes prior to final examination week. No student may withdraw from a course during final examination week. Students who want to withdraw from a course or courses must obtain a withdrawal form from HU-ONLINE, and must ensure that all required signatures appear on the form. Completed withdrawal forms must be submitted to the HU-ONLINE registrar's office before the end of the academic session. Students will receive either a "WP" or a "WF".

Withdrawal Policy

The withdrawal period begins at the close of the Add/Drop period and ends at the end of the 8th week of classes. Withdrawal means that the student will cease to attend class(es) and is no longer considered enrolled in that class or in those classes. A student must complete a Withdrawal Form and obtain the following approvals:

1. Instructor
2. Department Chairperson/Program Coordinator, or Advisor

The student's records will reflect a "WP" Withdrew Passing or "WF" Withdrew Failing entry for each course from which the student withdraws. Students cannot withdraw during final exam week. A student who withdraws from a class is not entitled to a refund.

Virginia Tidewater Consortium

The Virginia Tidewater Consortium affords students the opportunity to take enrichment courses, not taught at the home school, at another member institution. Certain restrictions and regulations of the Consortium, the host schools, and Hampton University apply. This opportunity is only open to full-time students with a cumulative grade point average of 2.000 or better and is designed to make available a wider variety of upper-division, elective courses.

Taking Courses at Another Institution

A student may elect to take a course at any accredited institution of higher education. To protect the student and to ensure that the student is able to have the course and its credit-not quality points transferred back to his or her program at Hampton University, the student must secure permission from his or her academic advisor, department chairperson, and school dean before the end of the session prior to taking the course(s) at the other school. Standard forms and instructions may be obtained in each department.

Transfer Credits

Transfer credit can only be posted to the student's record if the student is currently registered when the transaction is received at HU-ONLINE. The student is responsible for having an official transcript mailed to his or her academic advisor when the work has been completed. Credit hours will be awarded for approved courses carrying a letter grade of "C-" or better. The appropriately approved, posted transaction will appear on the student's record when the current term is completed and the grades are processed.

The cumulative grade point average of each student will be calculated on courses taken at Hampton University. All credits earned at other institutions, including those earned by students seeking reentry to the University, as well as those with approved permission to take courses at another institution, will be treated/ classified as transfer credits. They may be used to reduce the number of hours required for graduation. However, they will not be used in calculating the cumulative grade point average.

Good Academic Standing

Students whose cumulative averages are equal to or greater than the average for their tenure and who have met their financial obligations, and whose conduct is in keeping with the standards of membership in the university will be considered in good academic standing. Students in good academic standing are entitled to continue registration and class attendance and are eligible to apply for a degree upon completion of the necessary requirements. Continued enrollment with HU-ONLINE is a privilege, which will be granted as long as the student meets the following criteria:

1. The student has maintained a cumulative average of 2.00 or better.
2. The student is not in violation of the Academic Honesty Code.

3. The student has fulfilled the attendance requirements for each course.
4. The student has demonstrated significant personal growth in each course attempted.
5. The student is not in violation of the University Code of Conduct.

Student Identification Cards

HU-ONLINE students are not required to have a student identification card (ID card). Students who do not have ID cards will not be able to enter the campus through the security gates to attend classes in campus buildings. Student ID cards may be obtained from the Campus Police Office located at Whipple Barn (Administrative Services) building on the corner of Tyler and E. Queen streets on the Hampton University campus. Students must present a copy of their current class schedule prior to requesting a student ID card. Copies of schedules may be obtained from the main office of HU-ONLINE.

Satisfactory Progress

Any student enrolled in at least twelve (12) semester hours of coursework each semester as a regular degree student and who sustains the cumulative average required by regulations shall be considered to be maintaining satisfactory progress toward a degree. As an exception, a student's cumulative grade-point average may fall below 2.0, but not less than the minimum set forth below for the number of quality hours attempted during which time he or she shall be placed on academic probation. Failure to achieve the required minimum cumulative grade-point average in the following semester, the probationary student is subject to dismissal.

Academic Honesty Code

All students are expected to maintain their personal conduct in a manner above reproach. Therefore, a student is in jeopardy of severe disciplinary action for committing one of the following violations:

Cheating

A student is considered to be cheating if, in the opinion of the person administering the examination/test (written or oral), the student gives, seeks or receives aid during the process of the examination/test; buys, sells, steals, or otherwise possesses or transmits an examination/test without authorization; substitutes for another or permits substitution for himself during an examination/test; or allows others to conduct research or to prepare any work without advance authorization from the instructor. The prohibition includes (but is not limited to) commercial term paper companies and files of past papers.

Fabrication

A student must not intentionally falsify or invent any information or citation in an academic exercise.

Plagiarism

Plagiarism is defined as "taking and using as one's own, the written ideas of another." A student must not intentionally adopt or reproduce ideas, words, or statements of another person without acknowledgement. Students must give due credit to the originality of others and honestly pay their literary debts and acknowledge indebtedness:

A. Whenever quoting another person's actual words.
B. Whenever using another person's ideas, opinion, or theory.
C. Whenever borrowing facts, statistics, or other illustrative material - unless the information is common knowledge.

Interference

A student must not steal, change, destroy, or impede another student's work. Impeding another student's work includes (but is not limited to) the theft, defacement, or mutilation of common resources to deprive others of the information they contain.

(Portions of this policy are taken from the Policy on Academic Dishonesty Bloomington Campus of Indiana University, Circular B43-84, p. 31.)

Examinations and Other Graded Work

Each course has periodic examinations and a final examination or evaluation. Final examination times are announced at least two weeks in advance of the first scheduled final examination. Students are required to take all of their final examinations at the times scheduled. Mid-term examinations are conducted during the fifth week of classes. Mid-term grades can be accessed through HU-NET during week six.

Absence from examinations should be discussed with the instructor before the examination so that the instructor can determine if there is sufficient reason to excuse the student or reschedule the examination for the student.

Absence from the final examination or otherwise not completing course assignments within the scheduled time of the course is generally not excusable. Only debilitating illnesses or other emergencies are considered reasonable causes for being excused from final examinations and not completing course assignments as scheduled. If the final examination or other assignments are postponed with the consent of the instructor, an "I" is recorded on the student's record to show that the course work is incomplete. If the work/examination is not completed by the end of one year, the 'I" automatically becomes an 'F".

A deferred examination is provided by the instructor for a student who has been excused by the instructor from taking an examination or completing other course work at the scheduled time. The student must arrange with the instructor to take the missed examination or complete the missing assignment as soon as possible. Except under very extraordinary conditions, the student is not permitted to postpone the taking of a deferred examination beyond the first occasion provided by the instructor. In no case will permission be given to make up missing examinations or other work beyond the end of one year.

Disciplinary Actions

Whenever a faculty member finds a student to be guilty of any academic dishonesty, the student will be dismissed from the class, examination or test immediately. The student will receive an 'F" in the course. The facts will be presented to the Director of HU-ONLINE who will recommend to the Provost that the student be suspended for two terms. A second offense will result in dismissal from the University.

Class Attendance Requirements

Faculty members have the right to establish attendance requirements in each of their courses. Instructors are responsible for informing students about their attendance requirements and the consequences for lack of attendance. Attendance information should be clearly stated in the course syllabus.

1. Absence from class does not relieve any student of the responsibility for completing all class assignments. Instructors are not obligated to provide make-up work for students who have missed classes unless the student is able to render a satisfactory explanation for his/her absence. The student shall be responsible for arranging make-up work with the instructor, who shall be the sole judge of the satisfactory completion of the course.
2. Students may not be allowed to make up or complete work, which is missed because of suspension or dismissal from the University. Suspension or dismissal before the end of the semester involves the loss of academic credit for the entire semester.

Student Course Load

The normal course load for a continuing studies student is 6 semester hours within a session (12 credit hours within semester). Only under compelling circumstances may a student, with the approval of his or her advisor and Director, be granted an exception to this policy; however, such student must have at least a 3.5 GPA, or be a candidate for graduation. Exceptions will be on a case-by- case basis and advisors must show cause for this exception.

Academic Warning

An academic warning notice is sent to the student if his or her semester grade point average is below 2.0, but his or her cumulative grade point average is 2.0 or higher. A student may be placed on probation or be dismissed without any other warning than a grade point average near or below 2.0.

Academic Dismissal

Dismissal for academic deficiencies results when a student does not meet the minimum academic standard. A minimum cumulative grade point average of 2.0 is the standard, but there is a sliding scale standard rising to 2.0 at 63 semester hours attempted. The purpose of the rising sliding scale standard is to allow time for the insufficiently prepared student to make up deficiencies in academic preparation for college work. Students who maintain a cumulative grade point average at or just above 2.0 place themselves in jeopardy of being dismissed without any other warning any time their semester average drops below 2.0.

Students who have been dismissed for academic deficiencies may not apply for admission t oHampton U Online until they have obtained and presented evidence of increased academic maturity. Academic courses taken at another institution to be presented as evidence of increased academic maturity should not be those previously attempted.

Appeal of Academic Dismissal

There is no appeal of a dismissal for academic deficiency if the student's cumulative grade point average is below the minimum standards for continuance unless the student suspects an error in calculation of his or her grade point average, or the student has had a recent medical or other emergency that has prevented satisfactory completion of a course or courses. An appeal based upon suspected miscalculation of one's grade point average is addressed to the Registrar, Hampton U Online.

Academic Support Services

HU-ONLINE provides academic and personal support to promote the personal and professional growth of the students. number of services designed to support the student's academic success.

1. Coordinate with the William R. and Norma B. Library to establish a reserve section of materials specific to our baccalaureate programs.
2. Evaluate the writing ability of each student by administering a writing competency examination after the completion of thirty

(30) credit hours. This essay examination will be assessed holistically in terms of content, style, grammar and spelling. The writing competency examination is a diagnostic tool, which focuses upon the student's strengths and weaknesses in writing at college level. Students receiving an unsatisfactory score will enroll in an intensive writing course.

Counseling and Career Services

In order to enable students to achieve their educational goals, HU-ONLINE and Hampton University provide:

1. Academic advising by Academic Coordinators who guide students through the course, certificate or degree program selection and maintenance process.
2. Personal counseling by professional individuals trained to assist students with problems. This confidential resource is available through the University's Academic Support Center (757-727- 5913).
3. Developmental Skills Courses that provide students with assistance in strengthening writing and mathematics deficiencies.
4. Career Counseling and Planning Center services to assist in securing permanent employment upon graduation as described in the General Information section. This office also assists is securing part-time or temporary employment, such as summer work experience and also manages the Cooperative Education and Internship Program. For more information, call (757) 727-5331.

University Libraries

The Libraries support the University's mission to promote learning and excellence in teaching by providing access to a wide array of information resources, services and facilities. Hampton University students, faculty, researchers and scholars constitute the primary users of the University Libraries. The resources of the campus libraries are enhanced as a result of membership in several networks and consortia, serving academic libraries. The Hampton University Library is a member of the Virginia Tidewater Consortium (VTC), the Virginia Independent College and University Library Association (VICULA) and the Virtual Library of Virginia (VIVA). The sharing of resources by the network of academic libraries is accomplished through the use of interlibrary loan, reciprocal borrowing, the shared cataloging of materials, online access to holdings, bibliographic databases and cooperative purchasing. Hampton University's libraries include the William R. and Norma B. Harvey Library (main) and satellite units in , the Department of Architecture and the Department of Music.

The William R. and Norma B. Harvey Library was dedicated and opened officially on January 26, 1992. This five-story facility houses the main library collection, including over 400,000 volumes; 62,538 bound periodicals; more than 640,000 microforms; and over 95,000 electronic books. Two special collections add depth to the general holdings: (1) the selective U. S. Government documents depository, and (2) the George Foster Peabody Collection of more than 33,000 cataloged items by and about African Americans.

Users gain access to the library's holdings through the Hampton University Online Web-based Catalog (HUWebCat). New bibliographic records are added through the library's membership in LYRASIS which provides online cataloging, information products and services in support of cooperative activities. The library management system is the most recent version of the SIRSI UNICORN client based system of software and equipment.

The Internet and access to a growing number of subscription services using the World Wide Web (www) are available from the University Library homepage via the campus Intranet. Online access to citations, abstracts, full-text articles, electronic journals, eBooks, government documents, dissertations, and other reference sources is provided. Students and faculty are able to access electronic resources from the web site while on campus and off campus. The library maintains licensed agreements to several aggregated databases, specialized databases, electronic journals and electronic books. Library instruction and web tutorials are provided to help students and faculty use resources effectively.

In addition to the above, open shelves afford users the privilege of direct access to most bound periodicals and books. Over 350 individual study carrels, 13 group study rooms, 18 faculty carrels, a 24-hour study room, a vending area, a multi-purpose meeting room seating 100, an electronic classroom, a conference room and Internet connectivity for laptop users are all available within the Harvey Library building.

Military and Government Libraries

Use restricted. Please call for information.

1. Armed Forces Staff College Library: 7800 Hampton Blvd., Naval Base, Norfolk, 444-5155.
2. Fort Eustis Post Library: The Groninger Library, Building 1313, Fort Eustis, 878-5017.
3. Joint Base Langley - Eustis (TRADOC) Bateman Library, 42 Ash Ave, Langley Air Force Base, 764-2906.
4. NASA Technical Library: Langley Research Center, Building 1194, Langley Air Force Base, 865-2000.
5. Naval Weapons Station Technical Library, Building 705, Naval Weapons Station, Lee Hall, 887-4726.

Public Libraries

1. Hampton Public Library: The Charles H. Taylor Memorial Library, 4207 Victoria Blvd., Hampton, 727-1154.
2. Newport New Public Libraries: Four branches. Two of the branches contain information of particular interest to the college student.
   (a) Main Street Library, 110 Main Street, Newport News, 591-7426.
   (b) The Grissom Library, 366 DeShazor Drive, Newport News, 886- 2744.
3. Norfolk Public Library: Kirn Memorial Library, 301 East City Hall Avenue, Norfolk, (across the street from MacArthur Memorial), 441-2173.

Virginia Tidewater Consortium Libraries

HU-ONLINE students with proper identification are eligible to utilize library facilities from the following: colleges and universities:

1. Regent University: Indian River Road and Centerville Turnpike, Virginia Beach, 424 -7000, Ext. 4150.
2. Christopher Newport University: Capt. John Smith Library, Shoe Lane, Newport News, 599-7133.
3. College of William and Mary: The Earl Gregg Swem Library, Williamsburg, 253-4406.
4. Norfolk State University: The Lyman Beecher Brooks Library, Norfolk, 623-8220.
5. Old Dominion University: Hampton Blvd., Norfolk, 440-4154, Reference 440-4178.
6. Thomas Nelson Community College: 99 Thomas Nelson Drive, Hampton, 825-2876.
7. Tidewater Community College: (Virginia Beach Campus), 1700 College Crescent, Virginia Beach, 427-7150.
8. Virginia Wesleyan College: The Hofheimer Library, Wesleyan Drive, Norfolk, 461-3232, Ext. 224.

General Requirements for Graduation

The graduation requirements of HU-ONLINE are those published in the HU-ONLINE section of the Hampton University Academic Catalog in force at the time of the student's initial enrollment. If the student's course of study is interrupted by failure to enroll for at least one year or because of a change of major, the degree plan graduation requirements which must be met are those in force at the time that they re-enroll and enter the new major.

HU-ONLINE (Baccalaureate Degree) are as follows:

1. A minimum of 120 semester hours. Although students may have waivers for degree requirements, they must still meet the minimum of 120 semester hours of credit required by the University.
2. A cumulative Grade Point Average (GPA) of 2.000 or higher.
3. A grade of at least "C" in required and continuing education courses in the major area of study.
4. A minimum of thirty semester hours of credit earned at HU-ONLINE.
5. Passing of required courses with a grade of "C" or better.

HU-ONLINE Requirements (Associate's Degree) are as follows:

1. A minimum of 60 semester hours. Although students may have waivers for degree requirements, they must still meet the minimum of 60 semester hours of credit required by the University.
2. A cumulative Grade Point Average (GPA) of 2.0 or higher in the major field.
3. A grade of at least "C" in all courses in the major area of study.
4. A minimum of fifteen semester hours of credit earned at HU-ONLINE.
5. The student must be in residence the final two sessions prior to the completion of degree requirements or pay the records maintenance fee.
6. Passing of English 101-102 and Speech 103 with grade of "C" or better.

Application for Graduation

Seniors are required to submit an Application for Graduation to HU-ONLINE one year prior to the anticipated date of graduation, or upon the completion of ninety (90) semester hours of credit. Individuals failing to meet the deadline are not likely to be processed in time to participate in commencement ceremonies. Applications for Graduation can be found through HUNet, under Student Records.

Graduation Honors

Honors Designations	
Summa Cum Laude	3.8 and above
Magna Cum Laude	3.6 - 3.799
Cum Laude	3.4 - 3.599
Honors	3.0 - 3.399

Fees and Expenses 2020-2022

Tuition and Fees Policy

Tuition, application, and registration fees are due at the time of registration in the Division of Continuing Studies. All outstanding balances must be paid before a student will be allowed to register. A deferred schedule of payments is available as follows:

- Pay one-half (1/2) of the tuition, plus the application and registration fees on or before the first day of the session.
- The balance of the tuition will be due in full on or before the close of the session.

Undergraduate Course Credit

$300.00 per credit hour
$100.00 Registration Fee (per session)
$50.00 Application Fee
$150.00 Late Registration Fee
$50.00 Technology Fee (per semester Fall & Spring)

Graduate Course Credit

$695.00 per credit hour
$100.00 Registration Fee (per session)
$50.00 Application Fee
$150.00 Late Registration Fee
$125.00 Technology Fee (per semester Fall & Spring)

Graduation Fees

The following charges will be made for graduation:
$50.00 Bachelor's degree and Associate's degree
$40.00 Associate's cap and gown
$40.00 Bachelor's cap and gown
$75.00 Duplicate diploma fee

All graduation fees are due one month before the date of graduation.

(Above fees are subject to change.)

Other Fees

$10.00 Transcript Request Fee
$100.00 Clinical Validation Examination
$870.00 Portfolio Evaluation
$150.00 Late Registration Fee (per session)

Continuing Education Unit (CEU)
Courses offered by HU-ONLINE may be used to fulfill the continuing education requirements of employers. Individuals enrolling in CEU programs may be awarded non-academic credit provided sufficient course work is completed, appropriate fees are paid and the individual is academically eligible to receive credit. CEU's can- not be substituted for academic credit. One Continuing Education Unit CEU is ten (10) contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction.

Non-Credit Courses
Non-credit courses may include seminars, workshops, and conferences. This fee will be based upon the following:

a) Number of contact hours;

b) Minimum number of students enrolled;

c) Instructional cost (supplies, equipment, personnel and administrative cost);

d) Organizations desiring Continuing Education Units (CEU's) only will be charged a registration fee of $25.00 per student.

Evaluation of Records
Academic records are evaluated at a charge of $50.00.

Records Maintenance Fee
All degree-seeking students who do not register for one semester (or two consecutive HU-ONLINE sessions) must pay the equivalent of a one-credit course to maintain their files in an active status. This also applies to graduating seniors who are not enrolled in the term in which they have applied for graduation. If they do not, their file will be closed and they will have to re-apply when they register in the future. All Servicemembers Opportunity Colleges (SOC) students who have completed a SOC agreement form that has been properly processed are exempted.

Students who must reapply will be subject to the degree requirements in effect at that time.

Transcripts
An official transcript is the official record of a student's academic achievement. The official transcript bears the University Seal and signature of the HU-ONLINE registrar. A student may order transcripts by written request to HU-ONLINE for a charge of $10.00 per transcript*. An unofficial transcript may be issued directly to the student.

Students requesting transcripts can submit their request(s) using the following methods:

- In-person
- Mail to HU-ONLINE PO Box 6227, Hampton, VA 23668
- Email** huonline@hamptonu.edu or
- Fax** 757-224-0397

*NO PERSONAL CHECKS ACCEPTED.

**With these types of requests, a credit card number, expiration date, and V-code (3 numbers on back of card) must be submitted for the transcript fee.

Any requests sent to the Office of the Registrar - Main Campus will not be honored.

Financial Assistance
Eligible students enrolled in HU-ONLINE may be awarded Federal, State and University aid. All awards are to be processed by the Financial Aid Office of the University in accordance with rules and regulations established by the University and other agencies granting Financial Assistance. For more information, students should contact the University Financial Aid Office at 727- 5332.

Veterans' Affairs
HU-ONLINE provides assistance to veterans and active duty service personnel who will utilize Veterans Administration educational benefits. Such persons should contact the University

College Veterans Administration Certifying Official to discuss the procedures for applying for their VA benefits.

Under the VA policy, all schools are required to evaluate a student's prior training, education and experience; grant appropriate credit where due; and reduce the length of the program proportionately. Therefore, all VA students must furnish official documentation (including DD Form 214 or 295) reflecting prior education and training for evaluation by Hampton U Online within two terms of their enrollment. A veteran's failure to do so may delay the processing of the required documents and payments (See related section on credit for Military Training). Veterans who are matriculating at another institution must present a letter of permission from the home institution to take HU-ONLINE courses.

Veterans' Benefits
The VA does not pay the University directly for veterans' tuition and fees. Therefore, veterans are responsible for timely payments of tuition and related expenses. Any changes in enrollment (add, drop, withdrawal, course cancellation) must be promptly reported, or the VA may assess the student with an overpayment of benefits.

Tuition Assistance
Tuition-assisted service members must submit an authorized Tuition Assistance Form at the time of registration. Procedures vary among the different branches; therefore, the service member is responsible for immediately reporting any enrollment changes (add, drop, withdrawal, or course cancellation) to the Education Services Office at the appropriate military location. All Army students must process TAs through the GOArmyEd portal.

The General Education Program

The general education program is predicated on the belief that a particular body of knowledge and a particular set of competencies exist which are common to liberally educated people and which enable them to function as whole persons in a pluralistic society. In essence, the purpose of the general education program is to prepare all students to function as individual contributors to society, as members of the larger society, and as members of their native social and political environment.

Since the underlying assumption of the general education program is that there exists a common body of knowledge which binds together all human experiences, then all courses and activi-

ties which comprise the general education curriculum are designed around a common set of goals: to acquire, organize, evaluate knowledge and communicate knowledge.

As a result of the general education core and the companion discipline requirements, every Hampton University student prior to graduation should attain the following Core Competencies:

1. **Critical Thinking** is the ability to identify how to act after careful evaluation of the evidence and reasoning in a communication.
2. **Ethics** is the ability to identify ethical ideas, issues and apply ethical principles and relating to personal, professional and academic conduct.
3. **International Diversity** is the ability to understand the social customs, traditions, and artifacts of a culture.
4. **Information and Technology Literacy** is the ability to use electronic media to support research activities and the ability to locate, evaluate, and use effectively the needed information and its sources.
5. **Oral Communication** is the ability to deliver a spoken message of depth and complexity in a way that elicits a response from an audience of understanding, appreciation, assent or critical inquiry.
6. **Quantitative Reasoning** is the ability to use numeral, geometric, and measurement data and concepts, mathematical skills and principles of mathematical reasoning to draw logical conclusions and to make well-reasoned decisions in professional, financial, and/or real world situations.
7. **Scientific Reasoning** is the ability to describe, understand, predict, and control natural phenomena by adherence to a self-correcting system of inquiry, the scientific method, and reliance on empirical evidence.
8. **Written Communication** is the ability to develop and express complex ideas clearly, coherently, and logically in a style appropriate for both purpose and audience and demonstrate mastery of accepted standards of written communication

Hampton U Online General Education Core

Core Courses **Credit Hours**

English..... 6 hrs.
ENGO 101 Written Communication I (Required)
ENGL 102 Written Communication II (Required)
Introductory sequence in composition, contributing to the liberal education of students, regardless of their majors. Approaches writing as a process and provides experience in writing with various aims and rhetorical strategies.

Oral Communication..... 3 hrs.
COMO 103 Oral Communication (Required)
A one-semester course in Speech Communication involving a participative learning experience. Emphasis will be placed on intrapersonal, interpersonal and public communication.

Health and Physical Education..... 2 hrs.
HEAO 200 Health Education (Required)
Designed to help the student to understand himself/herself as a human organism; to become familiar with various influences that affect health; to coordinate experiences for more effective understanding of healthful living in the world today; and to aid himself/herself in solving personal health problems.

Understanding the HU Culture/ Academic Success Skills .....1 hr.
CSOO 126 Understanding the HU Culture/Academic Success Skills (Required)
A one-semester required orientation course designed to improve the quality of the freshman experience for entering students by helping them understand the purpose and value of higher education at Hampton University, as well as the larger context in which that education takes place and the multicultural nature of the problems and concerns which it addresses; to develop positive attitudes toward the teaching learning process; and to acquire coping skills essential for successful college life.

Cultures and Civilization..... 9 hrs.
Humanities/Fine Arts HUMO 201 Humanities I (Required)
History HISO 106 World Civilizations II (Required)
Surveys the period from the French Revolution (1789) to the present, years when many aspects of the contemporary world were shaped.
In addition to the two required courses, select one course from the following: HISO 105,107; ARTO 200, 305, 306, or 407; ENGO 214, 215, 323, 328, or 329; Foreign Language (above 202); HUMO 202; MUSO 200, 201, 202 or 305; Philosophy 203, 204, 210, 301, 304, or 305; THEO 120, 205, 206.

Social and Behavioral Science ..... 6 hrs.
Options selected from Economics (201, 202), Geography (201, 202), Military Science (MSCO 201), Political Science (201, 202, 203, 204, 205, 304, 305, 308, 310, 311, 317, 320, 341, 409, 499), Psychology (203, 205, 300, 301, 302, 304, 305, 306, 308, 311, 312, 402, 404) and Sociology (205, 210, 215, 304, 305, 315, 320, 322, 324, 326, 328, 401, 402, 405, 406, 414, 416, 422, 499).

Natural Science ..... 3 hrs.
Course selection from the following (with or without a lab): Biology (101, 103, 105, 106), Environmental Science 204, Chemistry (150, 201), Marine and Environmental Science (202, 204), Physics (201, 203), Science (102, 104), APS (101, 102, 105, 106).

Mathematics ..... 3 hrs.
Mathematics 110 College Mathematics II (Minimum; or higher, as required by the major).
Mathematics of finance such as interest, installment buying, mortgage. Measurement, geometry and the metric system. Elementary concepts of probability and statistics.

Total Hours.....32/35 hrs.

Courses taken to meet General Education Requirements cannot also be used to satisfy major requirements.

**Note on MATO 109: Student must either successfully pass a math placement examination or enroll in Math 100 Elementary Algebra*

Sequence for Students Requiring Additional Preparation (A.A, B.A.):

MATO 100 Elementary Algebra.....3 hrs.
MATO 109 College Mathematics I.....3 hrs.
MATO 110 College Mathematics II.....3 hrs.

Mathematics Sequence for Management Curriculum

The Management curriculum includes the following degree programs and their concentrations: Business Management and Systems Organization and Management.

Required Courses in Management Curricula:

Mathematics 117 Precalculus I** .....3 hrs.

Mathematics 130 Calculus.....3 hrs.

***Prerequisite Course Options for MATH 130 Calculus:*

To enroll in MATO 130 Calculus, complete one of the following: MATO 117 Precalculus Mathematics I or receive satisfactory scores on the Placement Test.

Sequence for Students Requiring Additional Preparation (A.S, B.S.):

MATO 105 Intermediate Algebra (elective) .....3 hrs.

MATO 117 Precalculus Mathematics I.....3 hrs.

MAOH 130 Calculus .....3 hrs.

Note: MATO 117-130 will substitute for MATO 109-110.

Note on MATO 117: Student must either successfully pass a math placement examination or enroll in MATO 105 Intermediate Algebra

Prerequisite Requirement:

MATO 109-110 College Mathematics and Math 117 – 130 Pre-Calculus/ Calculus

The prerequisite for MATO 109 College Mathematics I and MATO 110 College Mathematics II requires that students either successfully pass a math placement examination or enroll in MATO 100 Elementary Algebra. MATO 100 Elementary Algebra will not be counted towards completion of graduation requirements.

The prerequisite for MATO 117 Pre-Calculus and MATO 130 Calculus requires that students either successfully pass a math placement examination or enroll in MATO 105 Intermediate Algebra. The purpose of the math placement examinations is to evaluate the student's level of general mathematical ability before enrolling in a higher level mathematics class. The passing score for the math placement examination is 70%.

Academic Curriculum

HU-ONLINE offers academic and noncredit programs. The programs offered include:

- Bachelor Degree Programs: Aviation Management (Airport Administration Concentration), Business Management, Public Safety Administration (Criminal Justice, Emergency and Disaster Management, Emergency Medical Management, Fire Administration), General Studies, Paralegal Studies, Systems Organization and Management; Systems Organization and Management (Human Resource Management Concentration).
- Associate Degree Programs: General Studies and Business Management.
- Certificate Programs (Academic): Entrepreneurship, Human Resource Management and Paralegal Studies.
- Certificate Programs (Non-Credit): Entrepreneurship.

Degrees and Programs

Hampton University Online offers programs leading to professional certificates, as well as Associate of Arts, Bachelor of Arts, Bachelor of Science, Master of Science, and the Doctor of Philosophy degrees in Business Administration, Counseling, Education and Nursing. A sampling of the degree offerings coordinated through Hampton University Online is listed below.

The Hampton University Online Programs

Degree	Major (Emphasis)
Certificate Programs	Entrepreneurship Human Resource Management Paralegal Studies
Associate of Arts	Biblical Studies General Studies Religious Studies
Associate of Science	Business Management
Bachelor of Arts	General Studies Paralegal Studies Religious Studies
Bachelor of Science	Aviation Management (Airport Administration) Business Management Criminal Justice Nursing (1- or 2-year RN to BSN) Systems Organization and Management Systems Organization and Management (Human Resource Management) Public Safety Administration (Emergency & Disaster Management) (Emergency Medical Systems) (Fire Administration)
Master of Arts	Counseling with a concentration in General Counseling
Master of Science	Cyber Security / Cyber Security Sports Administration Education Specialist Counseling (EdS)
Doctor of Philosophy	Business Administration Counseling Education and Supervision Educational Management Nursing (PhD)

Undergraduate Program Admission Requirements

Prospective students must:

- Apply online. Applications submitted with incomplete information may delay or impede the admission process. Applicants may apply as either regular (undeclared or undecided) or special (undergraduate non-degree) and may enroll as either full-time or part-time. Students interested in the Aviation and Religious Studies programs should refer to the specific admissions requirements as designated by the department or school.

- Submit a non-refundable application fee of $50.00. This payment can only be made electronically at http://secure.hamptonu.edu/ huonline/fee payable by major credit card; this fee does not apply toward tuition. The application for admission will not be processed without the required fee.
- Provide an official high school transcript verifying graduation with date graduated or proof of completion of GED and date completed.
- Submit official Transcripts from all former colleges/ universities/ military. Transcripts must reflect all undergraduate courses completed as of date of application. All official college transcripts submitted by mail must arrive in a sealed envelope. Active duty and retired military personnel must present all appropriate military transcripts.
- Provide evidence of a grade point average of 2.0 or better at previous institutions attended (for transfer students).

Certificate in Entrepreneurship

The Certificate in Entrepreneurship is a series of Entrepreneurship courses for individuals who are interested in starting their own business. Courses will promote entrepreneurial thinking and develop the necessary skills for founding and growing an entrepreneurial venture. Students will demonstrate these skills by developing and presenting a viable business plan. Students completing the program will be awarded a Certificate in Entrepreneurship. No prior college experience is required.

Course Requirements	Credit Hours
ENTO 210 Introduction to Entrepreneurship	3
ACCO 203 Accounting Principles I	3
FINO 304 Business Finance	3
MGMO 400 Organizational Behavior	3
MKTO 305 Principles of Marketing	3
MGMO 330 Management of Small Business	3
TOTAL CREDIT HOURS	**18**

Certificate in Human Resources Management

The Human Resource Management Certificate is designed to attract the newly promoted professional, the individual seeking preparation for career advancement, and the student seeking to enter the job market. Students may elect to take individual courses or earn the certificate by completing all eight courses. If the student later decides to pursue a baccalaureate degree program, credits earned as a certificate student will apply to most degree programs. The certificate program is designed to provide a comprehensive, competency-based, educational experience that will equip students with the skills necessary to become successful human resource management professionals.

Course Requirements	Credit Hours
HMRO 315 Training and Development in Organizations	3
HMRO 316 Compensation and Benefits Administration	3
HMRO 417 Legal Aspects of Human Resource Management	3
HMRO 499 Human Resource Management Seminar	3
MGMO 400 Organizational Behavior	3
MGMO 412 Labor Management Relations	3
TOTAL CREDIT HOURS	**18**

Certificate in Paralegal Studies

The Certificate Program in Paralegal Studies is designed to prepare individuals in the legal profession to perform as paralegals under the supervision of an attorney either in public or private practice, corporate or governmental law and other judicial agencies. Completion of the Certificate Program qualifies an individual for immediate employment. Academic credits successfully earned (grade of "C" or better) may be transferred to the Bachelor of Arts Degree program in Paralegal Studies.

Course Requirements	Credit Hours
PLSO 125 Law in Society	3
PLSO 126 Legal Research	3
PLSO 127 Legal Writing	3
PLSO 360 Criminal Law	3
PLSO 320 Litigation and Trial Practice	3
Choose one of the following:	3
PLSO 150 Torts and Personal Injury	
PLSO 305 Law Office Management	
PLSO 310 Real Estate	
PLSO 370 Domestic Relations	
PLSO 405 Wills, Trusts and Estates	
PLSO 413 Debtor/Credit Relations	
PLSO 414 Bankruptcy	
TOTAL CREDIT HOURS	**18**

Prerequisites: PLSO 125 Law in Society, PLSO 126 Legal Research, and PLSO 127 Legal Writing should be taken and passed with a grade of "C" or better before any other paralegal courses are taken.

Associates of the Arts Degree in Religious Studies

The goal of this introductory degree in religious studies is to provide students an organized and scholarly opportunities to explore the diversity of the religions of the world within their particular historical, social and cultural contexts. The Associate of Arts degree leads to the attainment of the Bachelors of Arts in Religious Studies at the completion of an additional sixty hours of course work.

Religious Studies Cognate	**Credit**
RELO 111 – Old Testament I	3
RELO 112 – Old Testament II	3
RELO 200 – Introduction to Religious Studies	3
RELO 202 – Life & Teachings of Jesus	3
RELO 203 – Islam	3
RELO 205 – Other Religious Traditions	3
RELO 211 – New Testament	3
RELO 212 – New Testament II	3
PHIO 220 – Logic & the Scientific Method	3
POLO 205 – Political Science	3
TOTAL	**30**

General Education Core

ENGO 101 – Written Communication I	3
BIOO 101 – Nature & Life	3
COM 103 – Oral Communication	3
HISO 105 – World Civilization I	3
HISO 107 – Survey of African American	3

History

MATO 201 – College Mathematics I	3
HUMO 201 – Seminar in Humanities	3
PHIO 203 – Introduction to Psychology	3
PSYO 203 – History or Western Philosophy I	3
SOCO 205 – Introduction to Sociology	3
TOTAL	**30**
TOTAL CREDITS	**60**

Biblical Studies Emphasis

The Biblical Studies concentration is designed to provide students with a canonical, historical and contextual appreciation of the biblical message, along with theological development within the history of Christianity. Completion of the Associate of Arts degree leads to the attainment of the Bachelor of Arts in Religious Studies at the completion of an additional sixty hours of coursework.

Biblical Studies Cognate	**Credit**
RELO 100 – Introduction to Biblical Studies	3
RELO 111 – Old Testament I	3
RELO 112 – Old Testament II	3
RELO 114 – Biblical Interpretation I	3
RELO 202 – Life and Teachings of Jesus	3
RELO 204 – Pentecostalism	3
RELO 207 – Principles of Biblical Teaching	3
RELO 211 – New Testament I	3
RELO 214 – Biblical Interpretation II	3
TOTAL	**30**

General Education Core	**Credit**
ENGO 101 – Written Communication I	3
BIOO 101 – Nature and Life	3
COM 103 – Oral Communication	3
HISO 105 – World Civilization I	3
HISO 107 – African American History	3
HUMO 201 – College Mathematics I	3
MATO 201 – Seminar in Humanities	3
PSYO 203 – Introduction to Psychology	3
PHIO 203 – History of Western Philosophy I	3
SOCO 205 – Introduction to Sociology	3
TOTAL	**30**
TOTAL CREDITS	**60**

Church Administration Emphasis

The Church Administration and Management concentration is designed to provide students with an organized course of study on the proper administration of the business and organizational aspects of ministry. Completion of the Associates of the Arts degree leads to the attainment of the Bachelor of Arts in Religious Studies at the completion of an additional sixty hours of coursework.

Church Administration Cognate	**Credit**
RELO 111 – Old Testament I	3
RELO 112 – Old Testament II	3
RELO 202 – Life and Teaching of Jesus	3
RELO 211 – New Testament I	3
RELO 212 – New Testament II	3
RELO 240 – Introduction to Church	3

Administration & Management

RELO 241 – Special Topics in Church	3
RELO 242 – Financial Controls and Reporting	3
RELO 243 – Information Technology in	3

Church Administration

RELO 244 – Faith-based Approach to	3

Office Management

RELO 245 – Leadership & Ethics	3
TOTAL	**30**

General Education Core	**Credit**
ENGO 101 Written Communication I	3
BIOO 101 Nature and Life	3
COM 103 – Oral Communication I	3
HISO 105 – World Civilization I	3
HISO 107 – Survey of African American History	3
HUMO 201 – College Mathematics I	3
MATO 201 – Seminar in Humanities	3
PHIO 203 – Introduction to Psychology	3
PSYO 203 – History of Western Philosophy I	3
SOCO 205 – Introduction to Sociology	3
TOTAL	**30**
TOTAL CREDITS	**60**

Associate of Science in Business Management

The Associate degree in Business Management is a 60-credit hour online program designed primarily to prepare adult learners for future managerial positions and to provide continuing education experiences for current managers. Students are encouraged to develop a sound philosophy, a strong sense of ethics, and effective problem-solving and decision-making skills. In addition, the associate's degree is designed to allow the student to continue on to pursue the Bachelor of Science degree in Business Management at the university.

Associate of Science Degree in Business Management - Suggested Sequence

Freshman Year	Credit
COMO 103 Oral Communications	3
CSOO 126 Understanding HU Culture	1
Culture and Civilization Elective	3
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3
MATO 117 Pre-calculus I	3
Natural Science Elective	3
Social Science Elective	3
Social Science Elective	3
TOTAL	**33**

Sophomore Year	Credit
ACCO 203 Accounting Principles I	3
ACCO 204 Accounting Principles II	3
CSOO 240 Intro to Human Resource Management	3
FINO 290 Personal Finance	3
ECOO 201 or 202 Principles of Economics (Macro/Micro)	3
MGMO 205 Computer Concepts in Business	3
MGMO 215 Principles of Statistical Analysis	3
MGMO 321 Management of International Business	3
MGMO 340 Business Communication	3
TOTAL	**27**
TOTAL CREDIT HOURS	**60**

Associate of Arts in General Studies

The Associate of Arts in General Studies provides students with preparation for a professional career and/or for further baccalaureate study. The curriculum offers a liberal arts foundation with an emphasis on the humanities, English, history, and psychology. Emphasis is placed upon the use of critical thinking and reading skills. Course work satisfactorily completed through the Associate of Arts in General Studies can be transferred to the four year baccalaureate degree in General Studies offered through HU Online. Additional credits may be utilized to satisfy elective course requirements.

Associate of Arts Degree in General Studies - Suggested Sequence

Freshman Year	Credit
BIOO 101 Nature of Life	3
CSOO 126 Und. the HU Culture	1
Academic Success Skills	
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
COMO 103 Oral Communications	3
MATO 110 College Mathematics II	3
PSYO 203 Introduction to Psychology	3
SOCO 205 Introduction to Sociology	3
ELECTIVE-Free Elective	3
TOTAL	**30**

Sophomore Year	Credit
CSOO ELECTIVE Computer Elective	3
ELECTIVE-Free Elective	3
ELECTIVE-Free Elective	3
Cultures & Civilizations CSOO 170; ENGO 215; MUSO 205; HISO 308;MGMO 321; POLO 307, 405, 406, 409 or SOCO 305	3
HUMO 201 Seminar in Humanities I	3
Art & Humanities HUMO 202; ARTO 200, 305, 306 Foreign Language, MUSO 201, 202, 205, PHIO 210, 301, 305	3
PHIO 203 History of Western Philosophy I	3
PHIO 204 History of Western Philosophy II	3
POLO 201 Introduction to Political Science	3
PSYO 205 Social Psychology	3
TOTAL	**30**
TOTAL CREDITS	**60**

Associate of Arts in Religious Studies

The goal of this introductory degree in Religious Studies is to provide students with an organized and scholarly opportunity to explore the diversity of the religions of the world within their particular historical, social and cultural contexts. The Associate of Arts degree leads to the attainment of the Bachelor of Arts in Religious Studies at the completion of an additional sixty hours of coursework.

Associates of the Arts Degree in Religious Studies

The goal of this introductory degree in religious studies is to provide students an organized and scholarly opportunities to explore the diversity of the religions of the world within their particular historical, social and cultural contexts. The Associate of Arts degree leads to the attainment of the Bachelors of Arts in Religious Studies at the completion of an additional sixty hours of coursework.

Religious Studies Cognate	Credit
RELO 111 - Old Testament I	3
RELO 112 - Old Testament II	3
RELO 200 - Introduction to Religious Studies	3
RELO 202 - Life & Teachings of Jesus	3
RELO 203 – Islam	3
RELO 205 - Other Religious Traditions	3
RELO 211 - New Testament	3
RELO 212 - New Testament II	3
PHIO 220 - Logic & the Scientific Method	3
POLO 205 - Political Science	3
TOTAL	**30**
General Education Core	
ENGO 101 - Written Communication I	3
BIOO 101 - Nature & Life	3
COM 103 - Oral Communication	3
HISO 105 - World Civilization I	3
HISO 107 - Survey of African American	3
History	
MATO 201 - College Mathematics I	3
HUMO 201 - Seminar in Humanities	3
PHIO 203 - Introduction to Psychology	3
PSYO 203 - History or Western Philosophy I	3
SOCO 205 - Introduction to Sociology	3
TOTAL	**30**
TOTAL CREDITS	**60**

Bachelor of Science Degree in Aviation Management - Airport Administration Concentration

The Bachelor of Science Degree in Aviation Management - Airport Administration concentration is a 120-credit hour online program designed primarily to prepare adult learners for airport managerial positions. Students are encouraged to develop a sound philosophy, a strong sense of ethics, and effective problem-solving and decision-making skills.

Bachelor of Science Degree in Aviation Management (Airport Administration) Suggested Sequence

FRESHMAN YEAR	**Credit**
APSO 101 Weather & Climate	3
AVNO 154 Aviation History	3
AVNO 162 Private Pilot Ground School	3
AVNO 181 Intro to Airport Systems	3
AVNO 153 Aviation Foundations I	3
ENGO 101 Written Communications I	3
UNVO 101 University Life	1
AVNO 170 ATC Foundations	3
HISO 106 World Civilization II	3
ENGO 102 Written Communications II	3
HEAO/PEDO Health/PE	2
Total	**30**

SOPHOMORE YEAR	**Credit**
ACCO 203 Principles of Accounting I	3
AVNO 201 Flight Safety	3
AVNO 253 Aviation Foundations II	3
AVNO 281 Airport Ops I (Landslide)	3
COMO 103 Oral Communications	3
HUMO 201 Humanities I	3
ACCO 204 Principles of Accounting II	3
AVNO 254 Crew Resource Management	3
AVNO 282 Airport Ops II (Airside)	3
AVNO 290 Intro to Unmanned Systems	3
MATO/SCIO MATO 117 or higher	3
Total	**33**

JUNIOR YEAR	**Credit**
AVNO 353 Aviation Management	3
ECOO 201 Economics I	3
HUMO Humanities/History Elective	3
MGMO 301 Bus Organization & Management	3
MGMO 215 Principal Stats. Analysis	3
AVNO 354 Aviation Legislation	3
AVNO 356 Air Transportation	3
AVNO 382 Airport Planning	3
CRJO 412 Homeland Security	3
SOCO Social Science Elective	3
Total	**30**

SENIOR YEAR	**Credit**
AVNO 381 Airport Finance	3
AVNO 451 Cooperative Work Study	3
AVNO 453 Special Topics in Aviation	3
AVNO 481 Concepts of Air Trans. Utilization	3
MGMO 300 Business Research	3
AVNO 452 Airline Operations	3
AVNO 454 Senior Capstone	3
AVNO 480 Airport Design	3
MGMO 400 Organizational Behavior	3
Total	**27**

Bachelor of Science Degree in Business Management

The Bachelor of Science Degree in Business Management is designed to prepare adult learners for future managerial positions and to provide continuing education experiences for current managers. Students are encouraged to develop a sound philosophy, a strong sense of ethics, and effective problem-solving and decision-making skills.

The curriculum effectively balances management and administration courses with general education requirements thus affording students the opportunity to compete successfully in the global employment market for careers in business, government, and education and to fulfill the requirements for admission to graduate study. Students in the Business Management program are required to maintain a cumulative Grade Point Average of 2.000 or more in the major field and a minimum grade of "C" in all related courses as well as in English 101-102 and Communication 103.

Since the better academically prepared graduates are more successful in the job market, business management majors are strongly encouraged to maintain a cumulative Grade Point Average of at least 2.50. Students must not register under the Satisfactory/Unsatisfactory (S/U) grade option for graduation requirement courses. Completion of at least 58 semester hours is required prior to enrollment in 300/400 level business courses.

Bachelor of Science Degree in Business Management Suggested Sequence

Freshman Year	**Credit**
COMO 103 Oral Communications	3
CSOO 126 Understanding HU Culture	1
Culture and Civilization Elective	3
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3
MATO 117 Pre-calculus I	3
Natural Science Elective	3
Social Science Elective	3
Social Science Elective	3
TOTAL	**33**

Sophomore Year	**Credit**
MATO 130 Calculus	3
CSOO 170 Diversity and Global Awareness	3
ACCO 203 Accounting Principles I	3
ACCO 204 Accounting Principles II	3
Information and Technology Elective	3
MGMO 215 Principles of Statistical Analysis	3
MGMO 216 Quantitative Methods	3
FINO 209 Personal Finance	3
ELECTIVE - Free Elective	3

ELECTIVE - Free Elective	3
TOTAL	**30**

Junior Year	**Credit**
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Non-Business Elective	3
MGMO 301 Business Organization and Management	3
FINO 304 Business Finance	3
PHIO 305 Ethics and Leadership	3
MGMO 305 Business Law	3
MKTO 305 Principles of Marketing	3
TOTAL	**27**

Senior Year	**Credit**
ELECTIVE - Related Elective	3
ELECTIVE - Related Elective	3
MGMO 312 Personnel/Human Resources Management	3
MGMO 321 Management of International Business	3
MGMO 323 Information/DP Systems Management	3
MGMO 340 Business Communications	3
MGMO 400 Organizational Behavior	3
MGMO 402 Production/Operations Management	3
MGMO 412 Labor-Management Relations	3
MGMO 499 Business Policy and Strategy	3
(Capstone Course)	
TOTAL	**30**
TOTAL CREDITS	**120**

Minimum grade of "C" is required in all Major and all related courses (including ECOO 201-202) and in ENGO 101-102, COMO 103 and CSOO 201. A minimum grade of "C" is required in all transfer courses.

Bachelor of Science (B.S.) in Criminal Justice

The Criminal Justice Degree Program is designed to prepare students to actively participate in the development of knowledge in the field of criminal justice, particularly in the areas of corrections and law enforcement practices/administration. The program is especially beneficial for students with an interest in a criminal justice occupation, allowing them to enhance their professional knowledge and skills. The program is based on a multi-disciplinary study of the behavioral sciences as they apply to specialized areas.

Bachelor of Science in Criminal Justice Curriculum

Freshman Year	**Credit**
COMO 103 Oral Communications	3
CSOO 126 Understanding HU Culture	1
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3
MATO 117 Pre-calculus I	3
Natural Science Elective	3
Social Science Elective	3
Social Science Elective	3
TOTAL	**30**

Sophomore Year	**Credit**
CHEO 201 General Chemistry	3
CRJO 332 Corrections	3
Culture and Civilization Elective	3
PSYO 205 Social Psychology	3
SOCO 215 Introduction to Criminology	3
SOCO 250 Introduction to Social Research	3
SOCO 303 Juvenile Delinquency	3
SOCO 346 Statistics	3
CRJO Elective	3
Free Elective	3
TOTAL	**30**

Junior Year	**Credit**
CRJO 407 Forensics Crime Scene Investigation	3
PLSO 360 Criminal Law	3
SOCO 304 Race and Ethnic Relations	3
SOCO 305 The Criminal Justice System	3
SOCO 400 Internship	3
SOCO 403 Victimology	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
TOTAL	**27**

Senior Year	**Credit**
CRJO 409 Criminalistics of Cybercrime	3
CRJO 410 Issues in Law Enforcement	3
CRJO 411 Homeland Security	3
CRJO 416 Terrorism & National Security	3
CRJO 417 Enforcement and Security	3
CRJO 418 Emergency Preparedness	3
CRJO 499 Senior Practicum	3
CRJO Elective	3
CRJO Elective	3
ELECTIVE Related Elective	3
ELECTIVE Related Elective	3
TOTAL	**33**
TOTAL CREDITS	**120**

Students must obtain a grade of C or better in these courses. Math and sciences courses and CRJO Elective courses will also require a passing grade of "C" or better. A C- is not acceptable.

Bachelor of Arts Degree in General Studies

The Bachelor of Arts Degree Program in General Studies provides students with strong preparation for employment and graduate study. The curriculum offers a general education foundation with emphasis in the areas of the Humanities, Social Sciences and Natural Sciences. In addition, students are provided with ample exposure to business concepts through coursework in Economics, Business Organization and Management. The Bachelor of Arts Degree Program in General Studies accommodates students interested in a flexible academic curriculum which will introduce them to a variety of subjects. Students who complete the degree program in General Studies will find their written, verbal, analytical and research skills greatly enhanced.

Students planning for academic work beyond the baccalaureate level will find that the Bachelor of Arts Degree Program in General Studies provides them with strong preparation for graduate study. The Bachelor of Arts Degree Program in General Studies is an excellent academic option for military and civilian students who have attended other colleges and universities, and who have accumulated a number of credit hours in a non-specific major. Such students may benefit by transferring these hours into the General Studies program.

Bachelor of Arts Degree in General Studies - Suggested Sequence

Freshman Year	**Credit**
COMO 103 Oral Communication	3
CSOO 126 Und. the HU Culture/Academic Success Skills	1
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3
MATO 110 College Mathematics II	3
Cultures & Civilization Elective	3
Social Science Elective	3
Social Science Elective	3
ELECTIVE - Free Elective	3
TOTAL	**33**

Sophomore Year	**Credit**
COMO 250 Interpersonal Communication	3
CSOO 170 Diversity and Global Awareness	3
ECOO 200 Introduction to Economics	3
MGMO 200 Introduction to Business	3
MUSO 200 Introduction to Music	3
POLO 201 Introduction to Political Science	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
TOTAL	**27**

Junior Year	**Credit**
MGMO 301 Business Organization and Management	3
MGMO 312 Personnel/Human Resources Management	3
PHIO 203 History of Western Philosophy I	3
PHIO 204 History of Western Philosophy II	3
Computer Science & Technology Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ENGO 214 Selections in Literature	3
TOTAL	**30**

Senior Year	**Credit**
PHIO 304 Ethics	3
PSYO 205 Social Psychology	3
PSYO 401 Industrial Psychology	3
RELO 307 World Religions	3
RELO 310 Basic Insights of Judeo Christian Traditions	3
CSOO 499 General Studies Capstone	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
TOTAL	**30**
TOTAL CREDITS	**120**

**Students must have proficiency at the MATO 100 level as evidenced by scores on the mathematics placement examination or passing satisfactory MATO 100 prior to enrolling in MATH 109.*

Additional Requirements: Writing Competency Examination (after 30 credit hours) and Comprehensive Examination (after 112 hours).

Bachelor of Science Degree in Public Safety Administration

The Bachelor of Science Degree in Public Safety Administration is designed to meet the professional development needs of inservice and entry-level personnel in public safety organizations.

Historically, education for public safety professionals has centered on the more technical aspects of the positions. Clearly, technical training is vital to preparedness and success in the public safety field. But, in today's world, successful public safety professionals must possess a much broader knowledge of the managerial and organizational components of public service. They must have a deeper understanding of how domestic and worldwide issues, such as terrorism, impact their organizations both internally and from the public's perspective. The Public Safety Administration program was created to address this need. The goal of this program is to provide public safety professionals the education they need to be more effective as leaders in their organizations and advance in their careers. This degree prepares students for careers in departments including, Fire and EMS, Criminal Justice, and Emergency and Disaster Management. In addition, this degree is available to help students secure jobs at the local, state and federal levels.

Employment trends in this career field indicate that there is an increased need in providing students with a new and innovative curriculum that would provide the necessary knowledge and facilitate the development of skills needed to assume administrative and leadership roles in public safety organizations. Growth in this industry is related to changes in the global climate and societal concerns. Cities, counties and the states are major employers of public safety employees and need employees who can respond to natural and other disasters.

The degree program in Public Safety Administration offers four concentrations: Criminal Justice, Emergency and Disaster Management, Emergency Medical Systems, and Fire Administration with twenty-one (21) credit hours of concentration courses as listed below.

Bachelor of Science Degree in Public Safety Administration Suggested Sequence

FRESHMAN YEAR	**Credit**
COMO 103 Oral Communication	3
CSOO 126 Understanding HU Culture	1
Culture & Civilization - Culture & Civilization Elective	3
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3

MATO 110 College Mathematics II 3
Natural Science Elective - Natural Science Elective 3
Social Science Elective - Social Science Elective 3
Total **30**

SOPHOMORE YEAR **Credit**
Social Science Elective - Social Science Elective 3
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
CSOS 170 Diversity and Global Awareness 3
Information & Tech. - Information and Technology Elective 3
JACO 220 Principles of Public Relations 3
MATO 205 Introduction to Statistics 3
PDMO 211 Public Administration 3
Total **30**

JUNIOR YEAR **Credit**
ELECTIVE - Free Elective 3
EMSO 205 Foundation of EMS Systems 3
EDMO 305 Emergency and Disaster Management 3
EMSO 305 Fund of Emergency Service Organization Management 3
FADO 300 Fire Administration 3
MGMO 312 Personnel / Human Resources Management 3
MGMO 340 Business Communications 3
PHIO 305 Ethics and Leadership 3
PSAO 300 Information Technology for Fire & Emergency Service 3
PSAO 302 Project Management 3
Total **30**

SENIOR YEAR **Credit**
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
CJMO 400 Police Systems and Practices 3
EMSO 403 Strategic Planning 3
EMSO 408 EMS Finance 3
MGMO 400 Organizational Behavior 3
MGMO 412 Labor Management Relations 3
PSAO 401 Public Safety Capstone 3
Total **30**
TOTAL CREDIT HOURS **120**

Minimum grade of "C" is required in all Major and all Related courses and in ECOO 201-202, ENGL 101-102, and COMO 103. A minimum grade of "C-" will be accepted in all other transfer courses, except ENGO 101-102 and COMO 103 where a minimum grade of "C" is required. Courses taken to meet General Education Requirements cannot also be used to satisfy major requirements.

Bachelor of Science in Public Safety Administration (Criminal Justice Concentration) - Suggested Sequence

FRESHMAN YEAR **Credit**
COMO 103 Oral Communication 3
CSOO 126 Understanding HU Culture 1
Culture & Civilization - Culture & Civilization Elective 3
ENGO 101 Written Communication I 3
ENGO 102 Written Communication II 3
HEAO 200 Health Education 2
HISO 106 World Civilizations II 3
HUMO 201 Seminar in Humanities I 3
MATO 110 College Mathematics II 3
Natural Science Elective - Natural Science Elective 3
Social Science Elective - Social Science Elective 3
Total **30**

SOPHOMORE YEAR **Credit**
Social Science Elective - Social Science Elective 3
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
Information & Technology Elective 3
CSOO 170 Diversity & Global Awareness 3
CJMO 205 Introduction to Criminal Justice System 3
JACO 220 Principles of Public Relations 3
MATO 205 Introduction to Statistics 3
PDMO 211 Public Administration 3
Total **30**

JUNIOR YEAR **Credit**
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
CJMO 300 Juvenile Delinquency 3
CJMO 305 Fundamentals of Criminal Law 3
EMSO 305 Fund of Emergency Service Organization Management 3
FADO 300 Survey of Legal, Social and Political Issues 3
MGMO 312 Personnel / Human Resources Management 3
PHIO 305 Ethics and Leadership 3
PSAO 300 Information Technology for Fire & Emer Service 3
PSAO 302 Project Management 3
Total **30**

SENIOR YEAR **Credit**
ELECTIVE - Free Elective 3
ELECTIVE - Free Elective 3
CJMO 400 Police Systems and Practices 3
CJMO 401 Ethics in Criminal Justice 3
CJMO 402 Community Resources in Corrections 3
CJMO 403 Criminal Investigations 3
EMSO 403 Strategic Planning 3
EMSO 408 EMS Finance 3
MGMO 412 Labor Management Relations 3
PSAO 401 Public Safety Capstone 3
Total **30**
TOTAL CREDIT HOURS **120**

Minimum grade of "C" is required in all Major and all Related courses and in ECOO 201-202, ENGL 101-102, and COMO 103. A minimum grade of "C-" will be accepted in all other transfer courses, except ENGO 101-102 and COMO 103 where a minimum grade of "C" is required. Courses taken to meet General Education Requirements cannot also be used to satisfy major requirements.

Bachelor of Science in Public Safety Administration (Emergency and Disaster Management Concentration) - Suggested Sequence

FRESHMAN YEAR	Credit
COMO 103 Oral Communication	3
CSOO 126 Understanding HU Culture	1
Culture & Civilization - Culture & Civilization Elective	3
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3
MATO 110 College Mathematics II	3
Natural Science Elective - Natural Science Elective	3
Social Science Elective - Social Science Elective	3
Total	**30**

SOPHOMORE YEAR	Credit
Social Science Elective - Social Science Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
CSOO 170 Diversity and Global Awareness	3
ECOO ELECTIVE - Economics Elective	3
Information & Technology Elective	3
MATO 205 Introduction to Statistics	3
PDMO 211 Public Administration	3
JACO 220 Principles of Public Relations	3
Total	**30**

JUNIOR YEAR	Credit
ELECTIVE - Free Elective	**3**
FADO 300 Survey of Legal, Social and Political Issues	3
EDMO 300 Homeland Security Organization	3
EDMO 301 Emergency Planning	3
EDMO 305 Emergency & Disaster Incident Command	3
EMSO 305 Fund of Emer. Services Organization Mgmt	3
PHIO 305 Ethics and Leadership	3
PSAO 300 Information Technology for Fire & Emer Service	3
PSAO 302 Project Management	3
MGMO 312 Personnel / Human Resources Management	3
Total	**30**

SENIOR YEAR	Credit
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
MGMO 412 Labor Management Relations	3
EMSO 403 Strategic Planning	3
PSAO 401 Public Safety Capstone	3
EDMO 400 Border and Coastal Security	3
EDMO 402 Port Security	3
EDMO 405 Special Operations in Emergency Services	3
EDMO 406 National Disaster Management	3
EMSO 408 EMS Finance	3
Total	**30**
TOTAL CREDIT HOURS	**120**

Minimum grade of "C" is required in all Major and all Related courses and in ECOO 201-202, ENGL 101-102, and COMO 103. A minimum grade of "C-" will be accepted in all other transfer courses, except ENGL 101-102 and COMO 103 where a minimum grade of "C" is required. Courses taken to meet General Education Requirements cannot also be used to satisfy major requirements.

Bachelor of Science in Public Safety Administration (Emergency Medical Systems Concentration) - Suggested Sequence

FRESHMAN YEAR	Credit
COMO 103 Oral Communication	3
CSOO 126 Understanding HU Culture	1
Culture & Civilization - Culture & Civilization Elective	3
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3
MATO 110 College Mathematics II	3
Natural Science Elective - Natural Science Elective	3
Social Science Elective - Social Science Elective	3
Total	**30**

SOPHOMORE YEAR	Credit
Social Science Elective - Social Science Elective	3
ELECTIVE -Free Elective	3
ELECTIVE - Free Elective	3
Information & Technology Elective	3
CSOO 170 Diversity & Global Awareness	3
MATO 205 Introduction to Statistics	3
PDMO 211 Public Administration	3
JACO 220 Principles of Public Relations	3
EMSO 301 Emergency and Disaster Management	3
PHIO 305 Ethics and Leadership	3
Total	**30**

JUNIOR YEAR	Credit
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
EMSO 305 Fundamentals of Emergency Service Org. Mgmt	3
EMSO 307 Safety and Risk Management	3
EMSO 310 Ethics Healthcare and the Law	3
FADO 300 Survey of Legal Social and Political Issues	3
PSAO 300 Info Tech for Fire & Emergency Service	3
PSAO 302 Project Management	3
MGMO 312 Personal / Human Resources	3
Total	**30**

SENIOR YEAR	Credit
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
EMSO 403 Strategic Planning	3
EMSO 404 Case Studies in EMS Management Practice	3
EMSO 406 Injury and Illness Prevention in the Community	3
EMSO 407 EMS Quality Improvement and Perform Mgmt	3
EMSO 408 EMS Finance	3

MGMO 412 Labor Management Relations	3
POLO 409 Race and Public Policy	3
PSAO 401 Public Safety Capstone	3
Total	**30**
TOTAL CREDIT HOURS	**120**

Minimum grade of "C" is required in all Major and all Related courses and in ECOO 201-202, ENGO 101-102, and COMO 103. A minimum grade of "C-" will be accepted in all other transfer courses, except ENGO 101-102 and COMO 103 where a minimum grade of "C" is required. Courses taken to meet General Education Requirements cannot also be used to satisfy major requirements.

Bachelor of Science Degree Public Safety Administration (Fire Administration Concentration)

The concentration in Fire Administration is designed for individuals seeking a role in the changing realm of today's fire service. The program focuses on the professional, administrative and management areas essential to fire service leadership on the local, state and national level.

B.S. in Public Safety Administration (Fire Administration Concentration) – Suggested Sequence

FRESHMAN YEAR	**Credit**
COMO 103 Oral Communication	3
CSOO 126 Understanding HU Culture	1
Culture & Civilization Elective	3
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3
MATO 110 College Mathematics II	3
Natural Science Elective - Natural Science Elective	3
Social Science Elective - Social Science Elective	3
Total	**30**

SOPHOMORE YEAR	**Credit**
Social Science Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
CSOO 170 Diversity and Global Awareness	3
Information & Technology Elective	3
FADO 101 Philosophy of Fire Protection	3
MATO 205 Introduction to Statistics	3
PDMO 211 Public Administration	3
EDMO 305 Emergency & Disaster Incident Command	3
Total	**30**

JUNIOR YEAR	**Credit**
ELECTIVE - Free Elective	3
EMSO 305 Fund of Emergency Service Organ Mgmt	3
FADO 300 Survey of Legal, Social and Political Issues	3
FADO 305 Community Risk Mgmt for Fire & Emer Svc	3
FADO 306 Fire and Emergency Service Administration	3
MGMO 312 Personnel / Human Resources Management	3
PHIO 305 Ethics and Leadership	3
PSAO 300 Information Technology for Fire & Emer Serv	3
PSAO 302 Project Management	3
EMSO 403 Strategic Planning	3
Total	**30**

SENIOR YEAR	**Credit**
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
FADO 401 Fire Investigation and Legal Problems	3
FADO 403 Fire Investigation and Analysis	3
FADO 405 Disaster Planning and Control	3
FADO 406 Regulatory Issues in Fire Emergency Serv	3
FADO 407 Public Policy: Development and Admin	3
MGMO 412 Labor Management Relations	3
EMSO 408 EMS Finance	3
PSAO 401 Public Safety Capstone	3
Total	**30**
TOTAL CREDIT HOURS	**120**

Minimum grade of "C" is required in all Major and all Related courses and in ECOO 201-202, ENGL 101-102, and COMM 103. A minimum grade of "C-" will be accepted in all other transfer courses, except ENGO 101-102 and COMO 103 where a minimum grade of "C" is required. Courses taken to meet General Education Requirements cannot also be used to satisfy major requirements.

B. A. Paralegal Studies - Suggested Sequence

FRESHMAN YEAR	**Credit**
COMO 103 Oral Communication	3
CSOO 126 Understanding HU Culture	1
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3
MATO 110 College Mathematics II	3
Culture & Civilization - Culture and Civilization Elective	3
Natural Science Elective - Natural Science Elective	3
Social Science Elective - Social Science Elective	3
Social Science Elective - Social Science Elective	3
Total	**33**

SOPHOMORE YEAR	**Credit**
CSOO 170 Diversity and Global Awareness	3
ECOO 200 Introduction to Economics	3
MGMO 200 Introduction to Business	3
PLSO 125 Law in Society	3
PLSO 126 Legal Research	3
PLSO 127 Legal Writing	3
PLSO 150 Torts and Personal Injury	3
ELECTIVE - Free Elective	3
Total	**24**

JUNIOR YEAR	**Credit**
MGMO 340 Business Communication	3
MATO 205 Intro to Statistics or MGMO 215 Prin of Stat Analysis	3
PLSO 305 Law Office Management	3
PLSO 306 Contemporary Legal Ethics	3
PLSO 310 Real Estate	3
PLSO 320 Litigation and Trial Practice	3
PLSO 350 Business Organizations	3
PLSO 360 Criminal Law	3

PLSO 405 Wills, Trusts and Estates	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
Total	**33**

SENIOR YEAR	**Credit**
PLSO 370 Domestic Relations	3
PLSO 401 Paralegal Internship	3
PLSO 410 Constitutional Law	3
PLSO 412 Introduction to Administrative Law	3
PLSO 413 Debtor / Credit Relations	3
PLSO 414 Bankruptcy	3
Management Elective - Management Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
Total	**30**
TOTAL CREDIT HOURS	**120**

Minimum grade of "C" is required in all Major and all Related courses and in ECOO 201-202, ENGL 101-102, and COMO 103. A minimum grade of "C-" will be accepted in all other transfer courses, except ENGO 101-102 and COMO 103 where a minimum grade of "C" is required. Courses taken to meet General Education Requirements cannot also be used to satisfy major requirements.

Bachelor of Science Nursing Curriculum (RN to BS Online)

The RN-BS program provides students with strong preparation for advancement and graduate study. The curriculum offers a baccalaureate foundation with emphasis in the areas of leadership, management and current trends in nursing. The program facilitates the academic progression of registered nurses who hold the Associate Degree in Nursing or the Diploma in Nursing in an accelerated format to be obtained within 1 - 2 years. RN students must have completed all prerequisite coursework prior to admission to the program, and have a current unencumbered license to practice professional nursing.

National Accreditation

The baccalaureate degree programs in nursing and the master's degree programs in nursing at Hampton University is accredited by the Commission on Collegiate Nursing Education, 655 K. Street NW, Suite 750, Washington, DC., 20001, 202-887-6791; the undergraduate program is approved by the Virginia Board of Nursing (VBON). The School of Nursing is also an agency member of the National League for Nursing (NLN), and the American Association of Colleges of Nursing (AACN).

Clinical Clearance Requirements

An initial health evaluation, clinical clearance and current CPR certification is required prior to the start of the first clinical course. Annual health evaluation updates are also required. Students must remain eligible for clinical agency experiences by meeting the clinical clearance requirements, which include (1) an annual criminal background check (to include drug screening); (2) an annual physical examination; (3) current immunizations to include tetanus and diphtheria (Td) (within the past 10 years); pertussis (once since obtaining age 19) or Tdap within the past 10 years; hepatitis B (series of 3); varicella (series of 2); measles, mumps, rubella (MMR) series of 2; an annual tuberculosis screening; seasonal flu vaccine is required annually (which includes H1N1); (4) liability insurance (please check required coverage amount with the School of Nursing); and (5) cardiopulmonary resuscitation (CPR) certification from the American Heart Association (BLS for Healthcare Providers). The School of Nursing uses an outside vendor to facilitate the submission and clearance of required health evaluations, criminal background check and liability insurance information. Students are also required to complete annual trainings on HIPAA and OSHA standards. All students must create an account with the vendor, this is an annual requirement while enrolled in the professional nursing program. The costs associated with these clinical requirements are the responsibility of the student. Required documentation must be uploaded into the secure platform by May 1st (main campus). All clini- cal clearance requirements must remain current from May to May to ensure eligibility for clinical nursing courses. Online CPR training and cer- tification will not be accepted. Students who do not meet clinical clearance requirements will not be allowed to participate in clinical experiences necessary to meet requirements of the course. Please note that some clinical agencies may require additional clearance documents (i.e. drug screens or criminal background check) within 30 days of your first clinical. You will be notified of the additional requirements. All students must submit all required documents in the allotted time frame in order to achieve clinical clearance. Failure to complete the requirements by the established due dates will require that the student withdraw from any scheduled clinical courses and may result in a delay in completing the program of study or dismissal from the program. Students who fail to comply will be subject to administrative withdrawal.

Student Health Status: Physical Examinations and Immunizations

All nursing and health sciences students enrolled in courses with a clinical component must submit satisfactory credentials regarding his or her health status. Medical records and health certifications will be submitted, annually, by way of digital upload to the vendor's website. The student's health status is reviewed annually. A current health record from a health care provider or family physician including evidence of an annual physical examination and immunizations will be maintained by the vendor. Records from the previous year will not be accepted. Students will not be permitted to attend a clinical course if their health records are not current. Failure to complete the requirements by the established due dates will require that the student withdraw from any scheduled clinical courses and may result in a delay in completing the program of study or dismissal from the program Students who fail to comply will be subject to administrative withdrawal.

Liability Insurance

All students are required to obtain and provide PROOF of liability insurance to cover the periods of enrollment in practicum courses. Proof of liability coverage will be uploaded to the vendor's website. Students are requested to verify the amount of coverage that is required with the Office of Student Academic Support Services, faculty advisors, and/or clinical instructors prior to purchasing a liability insurance policy. Policy must show evidence of professional liability coverage (for student Registered Nurse), list the start and end dates of coverage, and the amount of coverage (example: $1,000,000 each claim to $6,000,000 aggregate). Students are encouraged to purchase liability insurance with any company of their choice.

Cardiopulmonary Resuscitation

Current certification in cardiopulmonary resuscitation is required to enroll and remain enrolled in nursing clinical practicum courses. Students must complete and maintain certification from the American Heart Association (BLS for Healthcare Providers) prior to beginning any clinical course. Online CPR training and certification will not be accepted.

Criminal Background Checks

A criminal background check (to include drug screening) must be completed annually via the designated vendor website. The package code for Hampton University School of Nursing (Please note there is a different code for each program) is provided in the Student Instruction Form located on the School of Nursing website.

Department of Undergraduate Nursing Education

The undergraduate program in nursing is designed to meet the needs of students who plan to enter professional nursing practice or continue their studies and pursue graduate education. High school graduates and transfer students, such as registered nurses (RNs), licensed practical nurses (LPNs), military personnel, and those seeking a change in career, may seek counseling from the Office of Student Academic Support Services, (located in the School of Nursing), for assistance in meeting individual goals for completion of the Bachelor of Science in nursing degree requirements.

Criteria For Admission

All students must meet the general admission requirements of Hampton University and the specific admission requirements of the School of Nursing. Admission to the Department of Undergraduate Nursing Education program is a two-tier process: students must be admitted to the Pre-Professional Nursing concentration, and to the Professional Nursing program.

Pre-Professional Nursing Program

Transfer Students

All transfer students seeking admission to the Pre-Professional Nursing concentration are subject to the same admission policies governing non-transfer undergraduate students. Any student who has completed courses at an accredited college or university may request transfer credit for general education courses only. Students must provide official transcripts listing the courses and a catalog course description from the college or university where the courses were taken. Only grades of "C" or higher are acceptable for transfer credit. General education coursework must be no older than ten (10) years; math and science coursework must be no older than five (5) years. Students must have a cumulative grade point average of 3.0 or higher from all schools attended. Students who have been enrolled in another nursing program must have left that prior program in good academic standing. Unlicensed applicants who have failed two nursing courses in another registered nursing program will not be considered for admission into Hampton University School of Nursing.

Active Duty Military and Veterans The School of Nursing abides by University policies for awarding advanced credit for active duty military and veterans. Veterans/active duty military are subject to the same admission policies governing all other undergraduate and transfer students and must submit copies of DD Form 214 or DD Form 295. Active duty military and veteran who were previously military corpsman/medics may elect to seek advanced placement credit by successfully completing credit by examination. An additional fee is required. The School of Nursing does not offer letters of advanced admission to the Professional Nursing Program.

REQUIRED PREREQUISITES FOR ADMISSION TO ACCELERATED ONLINE RN TO BS NURSING PROGRAM

Course	
ENG 101 Written Communication I	3
ENG 102 Written Communication II	3
MAT 110 College Mathematics II	3
MAT 205 Intro to Statistics/Intro PSY 346 to Statistical Methods	3
BIO 224 Anatomy & Physiology I	4
BIO 225 Anatomy & Physiology II	4
BIO 304 Microbiology	4
CHE 101 General Chemistry	4
SOC 205 Intro to Sociology	3
PSY 203 Intro to Psychology	3
PSY 311 Developmental Psychology	3
COM 103 Oral Communication	3
HUM 201 Humanities I	3
HUM 202 Humanities II or Fine Arts	3
HIS 106 History of World Civilization II	3
General Elective	4
Physical Education (2 Activity Courses) or HEA 200 Health Education	2
Waiver for UNV 101 with transfer of 30 or more credits	
TOTAL CREDITS	**55**

Professional Nursing Program

Advanced Standing

The University grants credits for acceptable performance on the Advanced Placement Examination administered by the College Board. A minimum score of three (3) is required in all subject areas. Credit for CLEP, International Baccalaureate (IB), Dual Enrollment and other examinations may be accepted by the University and applied to degree requirements with the approval of the Office of Testing Services, Office of the Registrar, the major department, and the department of the discipline in which the subject is taught. Students may also request permission to complete a credit by examination in those non-nursing courses in which they are proficient. There are specific procedures for the credit by examination process, and the detailed procedures are available upon request. NOTE: There is an additional fee for each credit by examination as well as a fee to have course credits applied to the transcript.

Registered Nurses (RNs)

Registered nurses (RNs) with an unencumbered license are admitted with advanced standing. Registered nurse students are required to provide evidence of an unencumbered valid state license to practice professional nursing. The same admission policies governing undergraduate students seeking admission to Hampton University apply to registered nurse students. RN students are not required to complete the ATI TEAS® assessment. The evaluation of an official

transcript of previous coursework at a school of nursing, college, or university is required before advanced credit is awarded. Advanced nursing credits will be posted after 18 nursing credits have been earned at Hampton University.

Academic Retention and Progression

1. Complete all courses in the sequence outlined. Theory nursing courses with related practicum courses must be taken concurrently.
2. The minimum passing grade for all didactic and clinical nursing courses is 78.
3. A grade less than 78% in any nursing course is considered failing in the School of Nursing. Students who earn a grade of "77.99" or lower in either a theoretical nursing course or the corresponding clinical course will be required to enroll and successfully complete the designated section of the remediation course the following semester. Upon completion of the remediation course, the student is then eligible to repeat the previously failed nursing course. Failure to meet the course objectives of the remediation course is grounds for dismissal from the Professional Nursing program.
4. Students who earn a grade less than 78 in the following major nursing courses, NUR 215/216, 233/234, 315/316, 345/346, 415/417, 423/424, 442/443, 445/446 or 455/456, are required to enroll in the designated section of the NUR 300 Special Topics in Nursing course (tutorial). These tutorial course sections must be taken simultaneously with the repeated nursing courses.
5. Students who earn a grade below 78%, or withdrew from the following required non-clinical (practicum) courses: NUR 105, 202, 217, 221, 230, 307, 308, 312, 330, 328, and 418 will be unable to progress to the next numerical sequence of nursing courses until they have successfully completed the aforementioned courses (e.g. NUR 418 must be successfully completed prior to enrolling in NUR 445/446).
6. Students who fail the nursing course series in the final semester of the senior year must concurrently enroll in the failed nursing and corequisite courses, and successfully complete the specified special topics course NUR 300-07.
7. Students may not withdraw from a nursing course more than once to prevent failure in the course.
8. Remain eligible to meet the clinical clearance requirements (See section on Clinical Requirements). Students who do not meet all clinical clearance requirements will be withdrawn from the theory and clinical practicum by the School of Nursing Administration and must reapply for admission to the Professional Nursing program.
9. Submit a criminal background check every year. This is necessary because students who have a criminal record may not be eligible to sit for the NCLEX-RN® examination or receive licensure by state boards of nursing. The School of Nursing cannot guarantee that a student with a criminal record will be allowed to sit for the licensure examination or be permitted into a clinical agency for the practicum experience. Continuance in the program of a student with a criminal history will not set precedence for the continuance of another.
10. An incomplete (I) grade indicates that a student has not completed all coursework required for a grade; students are allowed up to one academic year to complete the work. The incomplete grade converts to an "F" if the coursework is not completed within a year. Students may not progress to the next sequence of nursing courses if they have an "I" in a required nursing course. A grade of "I" indicates the student has maintained a passing average, but for reasons beyond his or her control, some specific item such as an examination, a report, an assignment, or an experiment has not been completed. The student holding a grade of "I" is responsible for taking the initiative in arranging with the instructor to change the grade.
12. Licensed practical and registered nurse students must maintain an active unencumbered license to practice nursing while enrolled.

Dismissal

1. A student who receives a grade lower than a 78 in two required nursing courses, whether the same course or two different courses, will be dismissed from the School of Nursing.
2. A student whose behavior violates the University Code of Conduct, the Code of Ethics for Nurses, or the Virginia Nurse Practice act will be dismissed from the School of Nursing.
3. A student with a positive drug screen not attributed to prescription medications will be dismissed from the School of Nursing and referred to the Office of the Vice President of Student Affairs.
4. Exceptions to retention and dismissal policies may be made by the administration due to exceptional circumstances. All cases will be reviewed by the administration on a case by case basis. Decisions made by the administration about one student will not establish a precedent for others.

Graduation

1. A minimum of 30 semester hours of credit earned at Hampton University; the student must be in residence the final 30 semester hours prior to the completion of degree requirements.
2. The minimum number of credit hours specified by the applicable curriculum outline:
    a. A minimum of 120 semester credit hours as specified in the curriculum outline for registered nurse students.

Special Expenses

A special fee for each student enrolled in the Professional nursing program will be assessed per semester. Nursing uniforms, lab coat, classroom/laboratory attire (scrubs), and assessment equipment, will require additional funds. Transportation to and from the clinical sites as well as the cost of the transportation is the responsibility of the student.

There are additional costs for the School of Nursing pin and a white uniform for the Pinning Ceremony. Candidates for graduation are advised to plan ahead to ensure financial resources are available to cover the cost of commencement.

Clinical Experience

Students receive clinical practicum experiences in a variety of cooperating agencies. State law requires that all persons having contact with or caring for minors must have criminal history record, sex offender, and crimes against minors' registry checks. Clinical experiences are evaluated by the faculty who teach the practicum course, students must successfully meet the requirements of each clinical practicum course. One semester-hour credit is given for three (3) laboratory/clinical hours of practicum experience.

One-Year (Full-time) Curriculum Outline for Registered Nurse (RN) Students

YEAR ONE SUMMER SESSION 4 WEEK SESSION

NURO 308 Intro to Online Learning 2
Total Credits 2

6 WEEK SESSION

NURO 315 Transition Theory 2
NURO 316 Transition Theory Practicum 2
Total Credits 4

FALL SEMESTER FIRST 8 WEEKS

NURO 312 Health Assessment for Registered Nurses 3
NURO 307 Conceptual Approaches to Pathophysiology 3
Total Credits 6

SECOND 8 WEEKS

NURO 328 Nursing Informatics 2
NURO 415 Community Health Nursing 3
NURO 417 Community Health Nursing 3
Total Credits 8

SPRING SEMESTER THIRD 8 WEEKS

NURO 418 Issues in Research 2
NURSING Elective NURO 400 Major Health Issues and Problems of the Elderly or NURO 428 Transcultural Nursing . 3
Total Credits 5

FOURTH 8 WEEKS

NURO 423 Leadership & Management for Registered Nurses 4
NURO 424 Leadership & Management for Registered Nurses Practicum 4
Total Credits 8
Total Credits 33
RN Advanced Placement Credits 32
Total Number Prerequisites Credits 55
Total Credits Required For Graduation 120

Two-Year (Part-time) Curriculum Outline for Registered Nurse (RN) Students

YEAR ONE SUMMER SESSION 4 WEEKS

NURO 308 Intro to Online Learning 2
Total Credits 2

FALL SEMESTER FIRST 8 WEEKS

NURO 312 Health Assessment for Registered Nurses 3
Total Credits 3

SECOND 8 WEEKS

NURO 307 Conceptual Approaches to Pathophysiology 3
Total Credits 3

SPRING SEMESTER THIRD 8 WEEKS

NURO 328 Nursing Informatics 2
Total Credits 2

FOURTH 8 WEEKS

NURO 415 Community Health Nursing 3
NURO 417 Community Health Nursing 3
Total Credits 6

YEAR TWO SUMMER SESSION 6 WEEKS

NURO 315 Transition Theory 2
NURO 316 Transition Theory Practicum 2
Total Credits 4

FALL SEMESTER FIRST 8 WEEKS

NURO 418 Issues in Research 2
Total Credits 2

SECOND 8 WEEKS

NURSING Elective NURO 400 Major Health Issues and Problems of the Elderly or NURO 428 Transcultural Nursing . 3
Total Credits 3

SPRING SEMESTER THIRD 8 WEEKS

NURO 423 Leadership & Management for Registered Nurses 4
Total Credits 4

FOURTH 8 WEEKS

NURO 424 Leadership & Management for Registered Nurses Practicum 4
Total Credits 4
Total Credits 33
RN Advanced Placement Credits 32
Total Number Prerequisites Credits 55
Total Credits Required For Graduation 120

Bachelor of Arts in Paralegal Studies

The Bachelor of Arts in Paralegal Studies is designed both to prepare new entrants into the paralegal field and to provide opportunities for practicing paralegal professionals to enhance their career credentials. Students who specialize in paralegal studies will be prepared to participate as efficient and effective members of legal teams. Career opportunities include positions in law firms, government agencies, legal services offices, corporations, professional and trade associations, banks, real estate organizations, and other public- and private-sector businesses.

The purpose of the paralegal studies program is to combine specialized legal training courses with a strong liberal arts foundation. The curriculum is a well integrated program which effectively prepares paralegal and prospective law school students for the roles they will play in the legal field by reinforcing the basic principles of verbal and written communication, the techniques of scholarly research, and teaching a system of critical and analytical thinking. Such skills in accurate expression and clear, logical thinking are crucial to the successful interaction and professional service to future legal clients.

Freshman Year	**Credit**
COMO 103 Oral Communications	3
CSOO 126 Understanding HU Culture	1
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
HEAO 200 Health Education	2
HISO 106 World Civilizations II	3
HUMO 201 Seminar in Humanities I	3
MATO 110 College Mathematics II	3
Culture and Civilization Elective	3
Natural Science Elective	3
Social Science Elective	3
Social Science Elective	3
Total	**33**

Sophomore Year	**Credit**
CSOO 170 Diversity and Global Awareness	3
ECOO 200 Introduction to Economics	3
MGMO 200 Introduction to Business	3
PLSO 125 Law in Society	3
PLSO 126 Legal Research	3
PLSO 127 Legal Writing	3
PLSO 150 Torts and Personal Injury	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
Total	**27**

Junior Year	**Credit**
MGMO 340 Business Communication	3
MATO 205 Introduction to Statistics or MGMO 215 Principles of Statistical Analysis	3
PLSO 305 Law Office Management	3
PLSO 306 Contemporary Legal Ethics	3
PLSO 310 Real Estate	3
PLSO 320 Litigations and Trial Practice	3
PLSO 350 Business Organizations	3
PLSO 360 Criminal Law	3
PLSO 405 Wills, Trusts and Estates	3
ELECTIVE - Free Elective	3
Total	**30**

Senior Year	**Credit**
PLSO 370 Domestic Relations	3
PLSO 401 Paralegal Internship	3
PLSO 410 Constitutional Law	3
PLSO 412 Introduction to Administrative Law	3
PLSO 413 Debtor/Credit Relations	3
PLSO 414 Bankruptcy	3
Management Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
Total	**30**
Total Credits	**120**

Bachelor of Arts in Religious Studies Program

The Religious Studies Program provides an opportunity for those who are seeking a solid foundation in the study of religion an opportunity to obtain an accredited Bachelor of Arts degree in Religious Studies through distance learning. The program curriculum provides a strong core of biblical, theological, and pastoral courses reinforced by a strong liberal arts foundation. The program is designed to sharpen the skills of students already in ministry, to prepare students for advanced studies, especially in religious education and theology, and to broaden their options in the careers that put a premium on an informed religious consciousness.

Bachelor of Arts Degree in Religious Studies Suggested Sequence

Freshman Year	**Credit**
CSOO 126 Understanding HU Culture	1
ENGO 101 Written Communications I	3
ENGO 102 Written Communication II	3
COMO 103 Oral Communications	3
BIOO101 Nature and Life	3
HISO 106 World Civilizations II	3
MATO 110 College Math 110	3
PSYO 203 Introduction to Psychology	3
RELO 111 Old Testament I	3
RELO 112 Old Testament II	3
RELO 200 Introduction to Religious Studies	3
Subtotal	**31 hrs.**

Sophomore Year	**Credit**
SOCO 205 Introduction to Sociology	3
HISO 107 Survey of African American History	3
HUMO 201 Seminar in Humanities	3
RELO 211 New Testament I	3
RELO 212 New Testament II	3
RELO 201 Prophetic Books	3
RELO 202 Life and Teachings of Jesus	3
RELO 203 Islam	3
RELO 205 Other Religious Traditions	3
RELO 310 Judeo-Christian Heritage	3
Subtotal	**30 hrs.**

Junior Year	**Credit**
PHIO 210 Logic and the Scientific Method	3
PHIO 301 Contemporary Moral Problems	3
PHIO 304 Ethics	3
PHIO 305 Ethics and Leadership	3
RELO 104 Public Speaking Fundamentals (Homiletics)	3
RELO 204 Pentecostalism	3
RELO 205 Other Religious Traditions	3
RELO 305 Biblical Exegesis	3
RELO 309 American Religious Traditions	3
RELO 321 African American Religion in Historical Perspective	3
Subtotal	**30 hrs.**

Senior Year	**Credit**
HEAO 411 Health and Aging	3
RELO 401 Introduction to Theology	3
RELO 450 Introduction to Pastoral Care and Counseling	3
RELO 451 Pastoral Limits and Authority	3
*FREN 101-102; SPAN 101-102; HEBW 101-102, GREK 101-102	6
Elective	3
Elective	3
Elective	3
Subtotal	**27 hrs.**
Total Credits	**118**

Additional Requirements: Writing Competency Examination (after 30 credit hours) and Comprehensive Examination (after 112 hours).

Bachelor of Science Degree in Systems Organization and Management

The Systems Organization and Management degree program offers students an introduction to the theory, principles and foundations underlying management of large organizations. This is accomplished by providing students the tools necessary to make choices based upon the recognition of relationships between human resources, organizational behavior and organizational design. Students will also understand how to establish priorities within a technological dependent environment. Students are challenged to utilize a comprehensive compendium of courses in management, economics, finance, marketing and the liberal arts to solve complex organizational management problems. In addition, a generous number of electives afford students an opportunity to explore new or related areas of interest to complement required courses. Students completing the degree program are equipped for entry and mid- level management positions in both the public and private sector.

General Education Requirements

Freshman Year	**Credit**
BIOO 101 Nature of Life	3
COMO 103 Oral Communication	3
ENGO 101 Written Communication I	3
ENGO 102 Written Communication II	3
CSOO 126 Understanding HU Culture/ Academic Success Skills	1
HISO 106 World Civilizations II	3
MATO 117 Precalculus I	3
PSYO 203 Introduction to Psychology	3
HEAO 200 Health Education	2
HUMO 201 Seminar in Humanities I	3
SOCO 205 Introduction to Sociology	3
Total	**30 hrs.**

Sophomore Year	**Credit**
ACCO 203 Accounting Principles I	3
ACCO 204 Accounting Principles II	3
ECOO 202 Principles of Economics (Micro)	3
ELECTIVE - Free Elective	3
MATO 130 Calculus	3
Cultures & Civilizations HISO 202, 105, or 107	3
Science & Technology Computer Science Elective	3
ELECTIVE Free Elective	3
Cultures & Civilizations CSOO 170; ENGO 215; MUSO 205; HISO 308;	3
POLO 307, 405, 406, 409 or SOCO 305	
Science & Technology SCIO 102; CHEO 201; PHYO 200	3
Art & Humanities HUMO 202; ARTO 200, 305, 306, ENGO 214, Foreign Lang. MUSO 200, 201, 202, 205, PHIO 203, 204, 210, 301	3
Total	**33 hrs.**

Junior Year	**Credit**
ELECTIVE Free Elective	3
ELECTIVE Free Elective	3
FINO 304 Business Finance	3
MGMO 200 Introduction to Business	3
MGMO 301 Business Organization and Management	3
MGMO 305 Business Law	3
MGMO 312 Personnel/Human Resources Management	3
MGMO 321 Management of International Business	3
MGMO 400 Organizational Behavior	3
MKTO 305 Principles of Marketing	3
PSYO 205 Social Psychology	3
Total	**33 hrs.**

Senior Year	**Credit**
ELECTIVE Related Elective	3
ELECTIVE Related Elective	3
ELECTIVE Related Elective	3
MGMO 215 Principles of Statistical Analysis	3
MGMO 412 Labor Management Relations	3
MGMO 499 Business Policy and Strategy	3
PHIO 304 Contemporary Ethical Problems	3
PHIO 305 Ethics and Leadership	3
Total	**24 hrs.**
Total Credit Hours	**120 HRS.**

Minimum grade of "C" is required in all Major and all Related courses (including ECOO 201-202) and in ENGO 101-102, COMO 103 and CSOO 201. A minimum grade of "C" is required in all transfer courses.

Bachelor of Science in Systems Organization and Management Human Resources Management Concentration

The Systems Organization and Management program offers students an introduction to the theory, principles, and foundations underlying the management of large organizations. This is accomplished by providing students the tools necessary to make choices based upon the recognition of relationships among human resources, organizational behavior, and organizational design. Students are challenged to utilize a comprehensive compendium of courses in management, economics, finance, marketing, and the liberal arts to solve complex organizational management problems. The Human Resources Management concentration further allows students to develop specific leadership skills necessary to become successful human resource management professionals. The program is geared towards preparing students to meet the initial requirements towards human resources management certification.* Students completing the degree program are equipped for entry and mid-level management positions in both the public and private sectors.

Bachelor of Science Degree in Systems Organization and Management – Human Resource Management Concentration – Suggested Sequence

Freshman Year	Credit
BIOO 101 Nature of Life	3
COMO 103 Oral Communication	3
ENGO101 Written Communication I	3
ENGO 102 Written Communication II	3
CSOO 126 Understanding HU Culture	1
HISO 106 World Civilizations II	3
MATO 117 Precalculus I	3
SOCO 205 Introduction to Sociology	3
HEAO 200 Health Education	3
HUMO 201 Seminar in Humanities I	3
PSYO 203 Psychology	3
Total	**31**

Sophomore Year	Credit
ACCO 203 Accounting Principles I	3
ACCO 204 Accounting Principles II	3
ECOO 201 Principles of Economics (Macro)	3
ECOO 202 Principles of Economics (Micro)	3
ELECTIVE Free Elective	3
MATO 130 Calculus	3
Cultures & Civilizations HISO 202, 105, or 107	3
Science & Technology CSOO 201 or CSOO 213	3
Cultures & Civilizations CSOO 170; ENGO 215; MUSO 205; HISO 308; POLO 307, 405, 406, 409 or SOCO 305	3
Science & Technology SCIO 102; CHEO 201; PHYO 200	3
Art & Humanities HUMO 202; ARTO 200, 305, 306, ENGO 214, Foreign Lang., MUSO 200, 201, 202, 205, PHIO 203, 204, 210, 301, 304, 305	3
Total	**33**

Junior Year	Credit
ELECTIVE - Free Elective	3
ELECTIVE - Free Elective	3
FINO 304 Business Finance	3
MGMO 200 Introduction to Business	3
MGMO 215 Principles of Statistical Analysis	3
MGMO 301 Business Organization and Management	3
MGMO 305 Business Law	3
MGMO 312 Personnel/Human Resources Management	3
MGMO 321 Management of International Business	3
MGMO 340 Business Communication	3
MKTO 305 Principles of Marketing	3
Total	**33**

Senior Year	Credit
ELECTIVE - Free Elective	3
HRMO 315 Training and Development in Organizations	3
HRMO 316 Compensation and Benefits Administration	3
HRMO 417 Legal Aspects of Human Resource or CSOO 340 Management or Employment Law	3
HRMO 499 Human Resource Management Seminars (Capstone Course)	3
MGMO 400 Organizational Behavior	3
MGMO 412 Labor Management Relations	3
MGMO 414 Business Ethics	3
Total	**24**
Total Credits	**120**

Minimum grade of "C" is required in all Major and all related courses (including ECOO 201-202) and in ENGO 101-102 COMO 103 and CSOO 201. A minimum grade of "C" is required in all transfer courses.

Hampton University Online Graduate Program Admission Requirements

The first step to becoming a Hampton University Online student is to submit a completed application for admission. Applicants must submit all admission documents, and pay the application fee before final action is taken on the application for admission. Hampton University Online enrolls outstanding graduates of accredited institutions of higher education and prepares these students for exciting careers. The requirements for admission to the doctoral degree programs are more stringent than the requirements for admission to the master's degree programs, which are more stringent than admission to bachelor's degree programs.

The admission requirements for the graduate programs have some variation per program. To find out more about the admission requirements, please select the program of interest to find out more.

Transfer Credits

Per the Graduate College policy of Hampton University, students may be able to transfer in up to 9 credit hours.

Residency Requirement

All doctoral programs have a residency requirement that must be completed. Please click on each program link to find out more about the admissions specifics.

Master of Science in Cyber Security (Cyber Security)

The Master of Science in Cyber Security focuses on providing a broad interdisciplinary Cyber Security education that prepares graduates to successfully defend, protect, design, implement and maintain secure information and information systems. Graduates of the M.S. degree program in Cyber Security have the requisite expertise to:

- Function in the world-at-large as productive and ethical professionals and as responsible citizens. They will have a very good understanding of ethical issues and their applications.
- Understand and employ current trends and adapt to advances in the technology of the
- Cyber Security profession.
- Develop and implement security strategies to improve the security posture of organizations.
- Work in teams, to apply theoretical and analytical methods and principles of software development to address security issues in software development.
- Apply techniques, methodologies, tools and skills to build high quality security systems that function effectively and reliably in the emerging information infrastructure.
- Communicate effectively, both orally and in writing, with other security and computing professionals.

The MS in IA program is designed for prospects with an undergraduate degree in Computer Science or a degree in engineering, science or mathematics with a strong background in computer science. For prospects without the appropriate qualifications, a set of bridge courses provide the necessary background for regular admission to the MS program.

Bridge Program in Cyber Security (Non-Degree Program)

The Bridge Program in Cyber Security prepares students for graduate work in the Master of Science program. The main goal of this program is to provide non-computer science students with the necessary background to pursue a master's degree in Cyber Security. A secondary goal is to provide formal training for people in various technical disciplines who need significant background in computing. The Bridge program consists of comprehensive courses at the 500-level that provide the equivalent of the core undergraduate computer science curriculum. The following minimum requirements must be met before, as determined by the Department Chair, a student can be admitted to the program:

1. a bachelor's or higher degree;
2. two semesters of calculus and one semester of discrete mathematics; and,
3. formal training or experience in programming to the level of Computer Science 501.

Requirements for the Bridge Program in Cyber Security (as determined by the Department Chair)

Requirement	Description	Credit Hours
Computer Science 501	Programming	4
Computer Science 502	Advanced Programming	3
Computer Science 506	Advanced Programming and	
Data Structures	3	
Computer Science 507	Architectures and Operating Systems	3
Computer Science 508	Programming in Languages	3

Requirements for the Program in Cyber Security

CORE COURSES (25 Cr. Hr.)

Requirement	Description	Credit Hours
Computer Science 510	Mathematical Foundations	3
Comp. Info. Assurance 523	Ethics, Law and Policy in Cyberspace	3
Comp. Info. Assurance 582	Introduction to Cyber Security	3
Comp. Info. Assurance 583	Secure Software Engineering	3
Comp. Info. Assurance 610	Cryptography	3
Comp. Info. Assurance 670	Computer Forensics and Incident Handling	3
Comp. Info. Assurance 675	Computer Viruses and Malicious Software	3
Comp. Info. Assurance 683	Advanced Computer and Network Security	3
Comp. Info. Assurance 702	Comprehensive Examination	1

ELECTIVE COURSES (12 Cr. Hrs.)

Requirement	Description	Credit Hours
Comp. Info. Assurance 684	Systems Security, Administration, Management and Certification	3
Comp. Info. Assurance 685	Risk Management	3
Comp. Info. Assurance 686	Systems Security for Senior Management	3
Comp. Info. Assurance 690	Network Security and Intrusion Detection	3
Comp. Info. Assurance 691	Wireless Networks	3
Comp. Info. Assurance 692	Secure Distributed Computing	3
Comp. Info. Assurance 695	Special Topics	3

Doctor of Philosophy Business Administration Program

The School of Business, Graduate College and Hampton University Online collaborate to offer a hybrid online doctoral program in business which includes a summer residency requirement of two summers at four weeks each. The Hampton University doctoral program in business includes 60 credit hours with a concentration in Business Administration and is offered online. The program culminated with a dissertation facilitated in an online format. The target market for this program is professionals located nationwide who desire an advanced degree in business to excel in their careers. In addition, the program responds to current MBA or technical graduate students aspiring to become consultants or professors and those who aspire to advanced degrees to enhance leadership roles in administrative positions. Online courses will be provided during the academic year. Hence the program is suitable for busy professionals seeking an advanced degree in business to increase their credentials in their current or future industrial role and/or for advancement in academia.

Students enrolled in the doctoral program may select six graduate level courses that will result in at least 18 credit hours of subject matter in a discipline at the graduate level. Dissertation work will commence after successful completion of all coursework with a minimum grade of B, a Comprehensive Examination, and Dissertation Proposal Presentation. Final defense of the dissertation is required. Semester sessions are sixteen weeks in duration with the exception of summer sessions, which are four week terms. All coursework with the exception of summer residency will be facilitated online.

Admission Requirements

Admission to the doctoral program in Business Administration is open to all students seeking an advanced degree. Students are required to possess a master's degree in an approved program. Otherwise, nine credits of master's degree level business courses will be required in Economics, Accounting and Quantitative Business Analysis.

Prospective Ph.D. students must complete the Hampton University Graduate school application and submit the following required documents; GMAT scores, unless the prospective student has taken the GMAT for the MBA and achieved a score of at least 400. In order for past scores to be submitted, the test must have been taken within five years of the application date. All students must submit three letters of recommendation, show three years of relevant work experience via a resume, and submit a prepared Statement of Career/Professional Plans. Up to six credits of graduate coursework will be accepted for transfer credit.

Curriculum Focus: Marketing & Management or Finance & Accounting

The program requires completion of approximately 60 credit hours

REQUIRED COURSES

BLAO 701R Organizational Behavior 3
BLAO 702R Organization Theory and Practice 3
BLAO 703R Advanced Computer Applications 3
BLAO 704R Advanced Topics in Research 3
BLAO 760R Behavioral Research Methods 3
BLAO 761R Empirical Research Methods 3
BLAO 706R Teaching Methodology 1
*BLAO 707R/Pre-proposal Presentation 2
BLAO 740R Managerial Economics 3
BLAO 800 Dissertation I 4
**BLAO 805 Dissertation II 4
BLAO 810 Dissertation III 4
BLAO 815 Dissertation Defense 0
Total Hours **36**

Electives in the Ph.D. Curriculum

Electives will be selected based on the student's focus: Marketing & Management or Finance & Accounting

BLAO 720 Financial Accounting and Reporting Research 3
BLAO 721 Contemporary Issues in Accounting Seminar 3
BLAO 722 Accounting Theory 3
BLAO 723 Tax Planning and Research 3
BLAO 724 Special Topics in Taxation 3
BLAO 725 Seminar in Accounting Research 3
BLAO 730 Financial Economics 3
BLAO 731 Corporate and Financial Institutions 3
BLAO 732 Behavior Finance 3
BLAO 733 Theory of Finance 3
BLAO 734 Concepts of Investment Decisions 3
BLAO 735 Advanced Topics in Finance 3
BLAO 741 Issues in Operations Management 3
BLAO 742 Seminar in Strategic Policy Management 3
BLAO 743 International Management 3
BLAO 744 Organizational Change Theory 3
BLAO 745 Advanced Decision Support Systems 3
BLAO 750 Marketing Management 3
BLAO 751 Emerging Issues in Marketing 3
BLAO 752 Product Planning Seminar 3
BLAO 753 Behavioral Research in Marketing 3
BLAO 754 Quantitative Research in Marketing: Strategic Models and Methods 3
BLAO 755 Theories of Attitude and Persuasion 3
Total Elective Hours Needed **24**

Program matriculation requirements: Summer residencies, On-campus coursework, and Online coursework

First Summer Residency

BLAO 701R Organizational Behavior 3
BLAO 703R Advanced Computer Applications 3
BLAO 704R Advanced Topics in Research 3
BLAO 740R Managerial Economics 3
Total **12**

First Fall Semester (Online) **8 week session**

Elective 3

8 week session

Elective 3
Total **6**

First Spring Semester (Online) **8 week session**

Elective 3

8 week session

Elective 3
Total **6**

Second Summer Residency

BLAO 702R Organization Theory and Practice 3
BLAO 760R Behavioral Research Methods 3
BLAO 761R Empirical Research Methods 3
*BLAO 707R Pre-Proposal Presentation 2
BLAO 706R Teaching Methodology 1
Total **12**

Second Fall Semester (Online)

Article Completion (Register for Pre-proposal)

8 week session

Elective 3

8 week session

Elective 3
Total **6**

Second Spring Semester (Online) **8 week session**

Elective 3

8 week session

Elective 3
Total **6**

Summer

Comprehensive Exam
(Complete Application & Register for class according to Ph.D. Coordinator's directions)

Third Fall Semester (Online)

8 week session

BLAO 800 Dissertation I 4
BLAO 805 Dissertation II 4
Total **8**

Third Spring Semester (Online and Formal Presentation)

8 week session

**BLAO 810 Dissertation III 4
BLAO 815 Dissertation Defense 0
Total **4**

Program Total 60 credit hours

Note: Students enrolled in the program may select six graduate level courses that will result in at least 18 hours of subject matter in a discipline at the graduate level.

**Major coursework chosen from BLAO 720 to BLAO 735 for Accounting/ Finance track and from BLAO 741 to BLAO 755 for Marketing/Management track. Courses outside the major coursework list, may be taken for Minor coursework.*

** A maximum of 8 credit hours can be earned in this course by taking it for four semesters*

*** A maximum of 24 credit hours can be earned in this course by taking it for six semesters.*

Counseling

Master of Arts Counseling: General Counseling Concentration

The MA in Counseling, General Counseling concentration provides students with an overview of the counseling profession. The concentration offers only foundational curriculum and coursework, but it may be used for certification in Virginia as a Qualified Mental Health Provider. Hampton University offers the Master's in Counseling online and on campus, providing interested students anywhere an introduction to the profession of counseling. Hampton also offers Counseling degrees with concentrations in Community Mental Health Counseling, Student Affairs and College Student Development Counseling, and School Counseling. The Master's in Counseling, in Virginia or online, consists of 30 semester hours with the requirement of a comprehensive examination. Admission requirements are the same for all programs.

First Year - Semester 1	**Credit**
COUO 622 Assessment and Appraisal in Counseling	3
COUO 604 Lifespan Development	3
COUO 616 Theory and Practice of Counseling and Psychotherapy	3
TOTAL	**9**

First Year - Semester 2	**Credit**
COUO 619 Group Process in Counseling	3
COUO 612 Career Development	3
COUO 606 Treating the Substance Abuser	3
TOTAL	**9**

First Year - Semester 3	**Credit**
COUO 610 Identity, Ethics and Legal Aspects of Counseling	3
COUO 614 Community Mental Health and Welfare Services	3
TOTAL	**6**

Second Year - Semester 1	**Credit**
COUO 671 Introduction to Research and Program Evaluation	3
COUO 603 Counseling with Diverse Populations	3
COUO 702 Comprehensive Examination	1
TOTAL	**7**
TOTAL CREDITS	**31**

Note: Semester 3 is the Summer Session.

Education Specialist Degree in Counseling

This course of study is designed to further develop professional skills and broaden knowledge of counseling. Entry into the program will be limited to candidates who have successfully completed a Master of Arts Degree in Counseling. This program will consist of a minimum of 30 credit hours beyond the Masters of Arts program of graduate study, providing that prerequisites have been met. Some identified courses or similar courses may have been completed while pursuing the Masters of Arts Degree. If this situation exists, the advisor and the student will determine substitute courses to meet the 30 credit hour requirement. This degree is considered a terminal degree for the practitioner.

After successfully completing 9 credits, students will be evaluated for a change of status from provisional to regular and entry into candidacy. This change of status evaluation will be conducted using the students' academic progress and the personal and professional counselor competencies for the Department of Counseling. Following admission to regular status, students will develop a course of study with their academic advisor focusing on a specific concentration. Students who are not admitted to regular status will be aided in transitioning to another program. A committee of at least two faculty members will determine admission to regular status and this committee will consider:

- Input from regular, adjunct, and affiliate program faculty;
- Each applicant's potential success in forming effective interpersonal relationships in individual and small group contexts;
- Each applicant's aptitude for graduate level study, including technological competence and computer literacy;
- Each applicant's career goals and objectives and their relevance to the program; and,
- Each applicant's openness to self-examination and personal and professional self-development.

Personal Counseling Services

All students are encouraged to use personal counseling services to optimize their openness to self-examination and personal and professional development. The Hampton University Student Counseling Center is available for this function; however, the student is not limited to these counseling services.

Ed. S. in Counseling

In order to attain licensure in the Commonwealth of Virginia, the candidate must complete 60 hours of graduate study including the following courses beyond the Master's program. The student and advisor will develop a program to meet the Virginia licensure requirements for the student's specific area of study ensuring that only new or advanced courses are selected. For more information on pastoral counseling licensure and certification, see www. aapc. org. For more information on marriage and family therapy, see www.iamfc.org.

First Year	**Semester**	**1**	**2**	**3**
COUO 602	Abnormal Behavior and Psychopathology	3	-	-
COUO 621	Advanced Group and Family Systems Counseling	-	3	-
COUO 816	Qualitative Methods of Research	3	-	-
COUO 805	Human Sexuality	-	3	-
COUO 630	Analysis of Behavioral Data	3	-	-
COUO 824	Theories and Practice of Counseling Supervision	-	3	-
COUO 801	Counseling Leadership and Advocacy	-	-	3
COUO 710	Ethics and Legal Aspects of Counseling	-	-	3
Total		**9**	**9**	**6**

Second Year	**Semester**	**1**	**2**	**3**
COUO 826	Research and Program Evaluation	3	-	-
COUO 725	Grant Writing	3	-	-
Total		**6**		
Total Hours				**30**

Note: Semester 3 is the Summer Session.

** denotes courses recommended to replace.*

Doctor of Philosophy in Counseling Education and Supervision

The program provides candidates with an opportunity to develop the critical leadership skills and knowledge that are required in today's increasingly complex, diverse, and information-driven social and educational organizations. This program in Counselor Education and Supervision was developed to provide an attractive and viable alternative to "traditional" doctoral programs in counseling. This is a hybrid online doctoral program which includes a minimum of three campus residency seminars during matriculation. Completion of the program will result in the awarding of a Ph.D. degree requiring approximately 60 credits beyond the master's, including a significant focus on research. Many courses are currently being taught within the Specialist in Education Counseling program. All research and statistics courses will be taught in conjunction with the School of Nursing PhD program. Most course- work is offered in thematic seminars in which emphasis is placed on identifying and developing solutions to real-life problems.

After successfully completing the Doctoral Candidate Qualifying Examination, students will be evaluated for a change of status from provisional to regular and entry into candidacy. This change of status evaluation will be conducted using the students' academic progress and the personal and professional counselor competencies for the Department of Counseling. Students who are not admitted to candidacy will be aided in transitioning to another program. A committee of at least two faculty members will determine admission to candidacy and this committee will consider:

- Input from regular, adjunct, and affiliate program faculty;
- Each applicant's potential success in forming effective interpersonal relationships in individual and small group contexts;
- Each applicant's aptitude for graduate level study, including technological competence and computer literacy;
- Each applicant's career goals and objectives and their relevance to the program; and,
- Each applicant's openness to self-examination and personal and professional self-development.

Personal Counseling Services

All students are encouraged to use personal counseling services to optimize their openness to self-examination and personal and professional development. The Hampton University Student Counseling Center is available for this function; however, the student is not limited to these counseling services.

Liability Insurance:

All students are required to obtain and show proof of liability insurance to cover the periods enrolled in practicum and internship courses. The American Counseling Association provides online applications. However, students are encouraged to purchase liability insurance with any company of their choice.

Admission to the PhD in Counseling Education and Supervision

Admission to the program will require the ideal applicant to have a minimum of 300 combined score on the Verbal and Quantitative portions of the GRE within the last five years. A writing sample is required along with the required personal statement. The writing sample includes a published refereed journal article or a paper written during the applicant's M.A. program. Additionally, the ideal applicant must have completed a Master of Arts in Counseling degree from a CACREP accredited program or a similar course of study to include a graduate level course in abnormal psychology and ethics. Previous graduates of the Hampton University Education Specialist (EdS) Counseling program will be considered for admission to the program with current GRE scores and consideration of accepting all courses taken for application to this degree program with the minimum of at least an additional 27 semester hours for the award of the PhD. Successful candidates will possess licensure and credentials within the Counseling career field. Applications must be received by January 15 each year for a Summer admission. The dissertation courses (COUOs 832, 833, and 834) are to be taken in separate semesters and the student must complete 12 semester hours in dissertation.

First Year	**Semester**	**1**	**2**	**3**
COUO 826	Research and Program Evaluation	3	-	-
COUO 828	Counseling Practicum	-	3	-
COUO 816	Qualitative Methods of Research	3	-	-
COUO 823	Literature Review Writing	3	-	-
COUO 811	Theory and Practice of Counseling Education	-	-	3
COUO 805	Human Sexuality	-	3	-
COUO 801	Counseling Leadership and Advocacy	-	-	3
COUO 814	Quantitative Methods I	-	3	-
Total		**9**	**9**	**6**
Second Year	**Semester**	**1**	**2**	**3**
COUO 815	Quantitative Methods II	3	-	-
COUO 825	Grant Writing	3	-	-
COUO 831	Dissertation Seminar	-	3	-
COUO 829	Counselor Education and Supervision Internship I	3	-	-
COUO 824	Theories and Practice of Counseling Supervision	-	3	-
COUO 821	Advanced Group and Family Systems Theory	-	-	-
COUO 802	Comprehensive Examination	-	1	-
COUO 810	Ethics and Legal Aspects of Counseling	-	-	-
Total		**9**	**7**	
Total Hours				**60**
Third Year	**Semester**	**1**	**2**	**3**
COUO 830,	Counselor Education and Supervision Internship II	3	-	-
COUO 832,	Dissertation I	4	-	-
COUO 833,	Dissertation II	-	4	-
COUO 834,	Dissertation III	-	4	-
COUO 836,	Dissertation Defense	0	-	-
Total		**6**	**6**	**4**
Total Hours				**60**

Note: Semester 3 is the Summer Session.

**denotes course recommended for inclusion*

Graduate Nursing Education

The School of Nursing offers the Doctor of Philosophy (Ph.D.) degree program in Nursing.

Doctor of Philosophy Degree in Nursing

The Ph.D. in Nursing program at Hampton University requires a minimum of 60 hours of course work and the completion of an original research project resulting in the dissertation. The program is designed such that students may complete all requirements for the Ph.D. within three (3) years. Courses are taught in eight (8) week terms year round. Once a student enters into the Dissertation phase, he/she must maintain continuous enrollment (fall, spring, and summer semester/terms) until all degree requirements are completed.

Family and family-related research and higher education in nursing are the two areas of emphasis for the degree. Core, research and dissertation courses requirements are the same for all students regardless of their research interests. Students are able to pursue their individual interests by selecting cognate courses. Students may only select one cognate – Family Nursing or Nurse Educator. The program is designed to be flexible enough to be adjusted to the appropriate needs of the students.

To complete the program, students are required to satisfactorily complete core, research, cognate and dissertation courses, an approved area of related research study, and demonstrate research competence through the completion of the dissertation. The student's competence and scientific knowledge are tested through two doctoral examinations: a comprehensive examination, and an oral defense of the dissertation.

The Dissertation Committee (appointed by the Dean of the Graduate College upon recommendation by the department) consists of a minimum of three (3) members, only one of whom may be outside of the department or the University. The dissertation committee administers the Comprehensive Examination and the oral defense of the dissertation. The Comprehensive Examination tests the student's knowledge in the general area of study and the student's understanding of relevant fields of study which are supportive of the student's dissertation research. The Comprehensive Examination is taken at the end of the student's coursework, prior to beginning the dissertation research, which includes a draft of the dissertation. Students must enroll in Nursing 800 to register to take the Comprehensive Examination. If the student fails to satisfactorily complete this examination, it may be retaken once. Students are required to orally defend the dissertation before their Committee and at least two other faculty members who have expertise in the research area selected by the student. Students must be enrolled at Hampton University during the semester of graduation. Therefore, a student who is only enrolled in Dissertation Defense (0) credit hours must also complete the CRT form and pay the requisite fee.

Regular Admission

Students seeking admission to the Doctor of Philosophy program are subject to the rules and regulations of the Graduate College. Admission to the doctoral program is open to all qualified applicants who meet the requirements as stated in the Graduate Catalog. Potential students are encouraged to consult the Graduate Catalog prior to applying for admission. In addition, admission to the doctoral program requires the following:

1. A Master of Science degree in Nursing and/or a Doctor of Nursing Practice (DNP) from an accredited program.
2. A graduate level grade point average (GPA) of at least 3.5 on a 4.0 scale.
3. A graduate-level research course is required as a prerequisite for NURO 670.
4. A completed application submitted to the Graduate College.
5. A personal statement that delineates the applicant's (1) rationale for selecting Hampton University's doctoral program, (2) description of goals and aspirations, (3) expectations of doctoral study, (4) previous research and scholarship, and (5) current research interest that could lead to the development of a dissertation. The statement should be between 3 and 5 typed pages, double spaced, and in a 12-point Times New Roman or Arial font.
6. A current curriculum vita that includes sections on education, research and scholarly activity, and service.
7. A current valid license to practice professional Nursing in any state at the time of admission.
8. A personal interview via telephone, cyber communication methods or in person (at the student's expense) with a faculty member who teaches in the doctoral program.
9. Three (3) letters of recommendation from persons familiar with the applicant's employment and academic qualifications are required. Letters should be on professional letterhead and address the applicant's qualifications. Recommendations must come from professionals, such as the applicant's most recent employer, a previous nursing professor, supervisors, and/or nurse managers. The professional providing the reference must also complete Part II and Part III of the Recommendation Form.
10. Approval of the Graduate Admissions, Scholarship and Standards Committee of the School of Nursing.
11. Complete applications for admission must be received by the deadline of January 15th for fall admission.
12. Please note that the entire application package, including the application form, transcripts, and letters of recommendation, must be sent to the Graduate College, Hampton University, Hampton, Virginia 23668.

Doctor of Philosophy Degree in Nursing

Students enrolled in the PhD in Nursing program must complete 20 hours of core course work, 15 hours of research course work, select a cognate focus (family/family related or nurse educator) and complete 9 hours, and complete 16 hours of dissertation research course work. Nursing Cognate courses address the specific substantive and methodological focus of the dissertation research. The courses listed in the sequence below are required to obtain a Doctor of Philosophy Degree in Nursing at Hampton University in the Family and Family Related Nursing or Nurse Educator tracks.

Doctor of Philosophy in Nursing Curriculum Sequence

Course		Credits
YEAR ONE		
Fall Semester	**8 week terms**	**1st** **2nd**
NURO 704		2 -
NURO 670		3 -
NURO 710		- 3
NURO 714		- 3
TOTAL		**5** **6**
Spring Semester	**8 week terms**	**1st** **2nd**
NURO 711		3 -
NURO 716		3 -
NURO 712		- 3
NURO 713		- 3
TOTAL		**6** **6**
Summer 8 week term		
NURO 717		3
TOTAL		**3**
YEAR TWO		
Fall Semester	**8 week terms**	**1st** **2nd**
NURO 715 or 719		3 -
Cognate		3 -
NURO 718		- 3
NURO 725		- 3
TOTAL		**6** **6**
Spring Semester	**8 week terms**	**1st** **2nd**
NURO 800		0 -
Cognate		3 -
NURO 801		- 4
TOTAL		**3** **4**
Summer	**8 week term**	
Cognate		3
TOTAL		**3**
YEAR THREE		
Fall Semester	**8 week terms**	**1st** **2nd**
NURO 802		4 -
NURO 803		- 4
TOTAL		**4** **4**
Spring Semester	**8 week terms**	**1st** **2nd**
NURO 804		4 -
NURO 805*		- 0
TOTAL		**4** **0**
Total Credits Required for Graduation		**60**

**CRT fee required*

NURSING DOCTORAL CORE COURSES:
Family & Family Related Research (20 hours)

Course	Title	Credits
NURO 704	Intro to Online Learning/Scientific Writing	2
NURO 710	Family/Family Related Research: Historical and Cultural Perspectives	3
NURO 711	Family/Family Related Research: Philosophical, Conceptual and Theoretical Perspectives	3
NURO 712	Family/Family Related Research: Theory & Concept Analysis	3
NURO 713	Family/Family Related Research: Leadership, Policy, and Ethics	3
NURO 718	Analysis & Evaluation of Theory Generating & Theory Testing Research	3
NURO 717	Family Research: Instrument Development	3

NURSING DOCTORAL RESEARCH CORE COURSES: (15 hours)

Course	Title	Credits
NURO 670	Statistics for Health Professionals	3
NURO 714	Quantitative Methods I	3
NURO 716	Qualitative Methods I	3
(Choose One)		
NURO 715	Quantitative Methods II or	3
NURO 719	Qualitative Methods II	
NURO 725	Grantsmanship and Publications	3

NURSING DOCTORAL FAMILY/FAMILY RELATED COGNATE COURSES: (9 hours)

Course	Title	Credits
NURO 720	Dissemination & Utilization of Family Nursing Research	3
NURO 721	Vulnerable Populations: A Family Perspective	3
NURO 722	Special Topics in Family Nursing	3
NURO 723	Family Research	3
NURO 724	Special Topics in Family Research & Family Development Theory	3
NURO 700	Independent Study	3

NURSING DOCTORAL NURSE EDUCATOR COGNATE COURSES: (9 hours)

Course	Title	Credits
NURO 726	Creating the Future of Nursing Education	3
NURO 727	Learning Theories & Educational Philosophy	3
NURO 728	Assessment, Evaluation & Accreditation of Nursing Programs	3
NURO 729	Teaching Strategies for Nursing Educators	3
NURO 731	Curriculum Development in Nursing Education	3
NURO 733	Advanced Internship in Nursing Education	3

DISSERTATION CORE COURSES: (16 hours)

Course	Title	Credits
NURO 800	PhD Comprehensive Examination	0
NURO 801	Dissertation I	4
NURO 802	DIssertation II	4
NURO 803	Dissertation III	4
NURO 804	Dissertation IV	4
NURO 805	Dissertation Defense	0

Tuition and Fees Policy

Tuition, application, and registration fees are due at the time of registration in the Division of Continuing Studies. All outstanding balances must be paid before a student will be allowed to register. A deferred schedule of payments is available as follows: Pay one-half (1/2) of the tuition, plus the application and registration fees on or before the first day of the session.

The balance of the tuition will be due in full on or before the close of the session.

Undergraduate Course Credit

$300..00 per credit hour
$100.00 Registration Fee
$50.00 Application Fee
$25.00 Late Registration
$125.00 Technology Fee per semester (Fall and Spring only)

Graduate Course Credit

$695.00 per credit hour
$100.00 Registration Fee
$50.00 Application Fee

Graduation Fees

The following charges will be made for graduation:

$50.00 Bachelor's degree and Associate's degree
$40.00 Associate's cap and gown
$40.00 Bachelor's cap and gown
$75.00 Duplicate diploma fee
All graduation fees are due one month before the date of graduation.
(Above fees are subject to change.)

Other Fees

$10.00 Transcript Request Fee
$25.00 Writing Competency Examination
$50.00 Comprehensive Examination
$100.00 Clinical Validation Examination
$200.00 Portfolio Evaluation
$25.00 Late Registration Fee (per session)

Graduate Programs in Education

The School of Education and Human Development collaborates with Hampton University Online to offer online degree programs leading to the Master of Arts in Educational Leadership and to the

Doctor of Philosophy in Educational Management. More detailed information about the online degree programs are provided in the Hampton University Online section of this Catalog.

Master of Arts in Educational Leadership (Traditional and Online)

The Educational Leadership program is targeted to meet the needs of individuals attempting to obtain leadership training at the Pk-12 or Higher Education levels. The PK-12 program leads to PreK-12 Administration and Supervision endorsement in Virginia. It is an advanced program for individuals who already possess initial teacher licensure. The Higher Education program is geared toward leadership in postsecondary contexts. Licensure is not required for admission to this program. This program is available on the main campus and online through Hampton U Online.

Admissions requirements include the following:

- Application for Admission to the Graduate College
- Payment of Application Fee (currently $35.00) Two letters of recommendation
- Official GRE Scores Copy of teaching license
- Letter from a supervisor/personnel officer that attests to completion of three years of full-time teaching

Master of Arts in Educational Leadership (PreK-12 Administration and Supervision Endorsement)

Courses	Title	Semester Hours
EDUO 680	Survey of Computers and Data Analyses	3
EDUO 681	PK – 12 School Finance	3
EDUO 682	Educational Program Evaluation and Planning	3
EDUO 683	School Organizational Systems and Theory	3
EDUO 684	Secondary School Leadership (Grades 7-12)	3
EDUO 685	Legal Aspects of School Administration	3
EDUO 686	Elementary School Leadership (Grades PK-6)	3
EDUO 687	Human Resource Leadership in Schools and Districts	3
EDUO 688	Curriculum Planning and Design	3
EDUO 689	School and Community Relations and Diversity	3
EDUO 690	Supervision of Instruction	3
EDUO 691	Internship in Administration	3
EDUO 702	Master's Comprehensive Examination	3
TOTAL CREDITS		**42**

Master of Arts in Educational Leadership (Higher Education)

Courses	Title	Semester Hours
EDUO 611	Techniques and Problems in Educational Research	3
EDUO 639	College Student Development, Ethics, and Techniques	3
EDUO 644	Student Affairs Program	3
EDUO 712	Higher Education Finance	3
EDUO 723	The Law of Higher Education	3
EDUO 716	The History of Higher Education	3
EDUO 704	Organization and Administration of Higher Education	3
EDUO 705	Current Issues in Higher Education	3
EDUO 706	Assessment of Higher Education Outcomes	3
EDUO 707	Diverse Populations in Higher Education	3
EDUO 708	Higher Education Internship I	3
EDUO 709	Higher Education Internship II	3
EDUO 725	Higher Education Leadership and Fund Raising	3
EDUO 710	Higher Education Comprehensive Examination	3
TOTAL CREDITS FOR SPECIALIZATION		**42**

Doctor of Philosophy in Educational Management (Online)

The Doctor of Philosophy degree in Educational Management program is offered online through the Graduate College and Hampton University Online. The program provides candidates with an opportunity to develop the critical leadership skills and knowledge that are required in today's increasingly complex, diverse, and information-driven educational organizations. The program is designed to serve the advanced educational needs of top educational leaders by providing an executive hybrid program that allows individuals to pursue their degree without career interruption. The accelerated degree program is cohort based, with 15-20 students making up each cohort. The cohort model provides that students will matriculate together as they complete coursework and results in a deeper student support network.

Admission Requirements

Admission into the Doctor of Philosophy in Educational Management program is selective. Preferred prospective students have five

or more years of professional experience working within an educational institution, with evidence of leadership roles garnering the highest rating. In reference to the concentration areas, preferred prospective students will hold teacher or administrator licensure or other educational certification (the PK-12 concentration), and leadership experience in a higher education institution (the higher education concentration). Students must have earned a master's degree and must submit two letters of recommendation and a prepared Statement of Career/Professional plans along with the application for admission. Students lacking a master's degree in Education must also take the GRE and earn a score of 150 or higher or the MAT with a minimum score for 42.

Summer Orientation

Candidates are required to attend Online Orientation Sessions during the Summer term as a component of their summer coursework. The Summer Orientation provides course content, mentoring, dissertation supervision, and networking. Dissertation defenses must take place on campus as well.

Curriculum

All doctoral students in education take the core curriculum and the research core. The core curriculum is structured around two broadly defined themes: Leadership and Management; and Socio-political and Cultural Contexts of Education. The research and practice core consists of courses in research methods, an internship, and dissertation research courses. Internships are geared toward implementing action research to address current issues and challenges in educational settings that are reflective of the students' concentration areas. Students are required to take and pass a comprehensive exam prior to entering the dissertation phase of the program. Students work with a primary dissertation advisor and a dissertation advisory committee to formulate and conduct a culminating research project and to write the dissertation.

In addition to completion of common core courses, doctoral students must select one of two education concentration areas. The concentration areas are described below.

Higher Education

This concentration is focused on the challenges and means for addressing the rapidly evolving postsecondary environment including - finance and affordability, student personnel administration systems, enrollment management, STEM student recruitment and retention, distance/remote teaching and learning technology, access, diversity and cultural competence, efficiency and effectiveness. It is geared toward practitioners seeking upper level positions in higher education and opportunities in academia. PK-12 Administration (District-level leadership and beyond) This concentration is focused on the challenges and means for addressing the major issues facing K-12 leaders, such as standardized testing and accountability, school climate, distance/remote teaching and learning technology, equity issues and achievement gaps, high impact instructional practices, STEM Education curricula reform and policy, the needs of diverse and exceptional learners, teacher quality and retention, school choice and the charter movement. It is geared toward education administrators focused on obtaining leadership and practical research skills necessary to effectively lead at the highest organizational levels in K-12.

Doctor of Philosophy in Educational Management – PK-12 Administration Concentration (Online Program)

Courses/Title	Semester Hours
EDUO 611 Techniques and Problems in Ed. Research	3
EDUO 710 Leadership Theory and Practice in Educational Organizations	3
EDUO 718 Policy, Ethics, and Politics in Education	3
EDUO 717 History of PK-12 Educational Reform	3
EDUO 720 Assessment, Evaluation and Accountability	3
EDUO 719 Diversity and Equity in Education	3
STAO 600 Statistics	3
EDUO 725 Supervision & Prof. Dev.	3
EDUO 832 Quantitative Research Methods	3
EDUO 831 Qualitative Research Methods	3
EDUO 833 or 834 Advan. Quantitative./Qualitative	3
EDUO 727 Instructional Improvement	3
EDUO 814 Literature Review	3
EDUO 802 Ph.D. Comprehensive Exam	0
EDUO 726 Legal Issues in PK-12 Education	3
EDUO 839 Dissertation Research Seminar	3
EDUO 713 School District Finance & Budgeting	3
EDUO 840 Dissertation Research I	4
EDUO 841 Dissertation Research II	4
EDUO 842 Dissertation Research III	4
EDUO 843 Dissertation Defense	0
TOTAL CREDITS	**60**

Doctor of Philosophy in Educational Management – Higher Education Concentration (Online Program)

Courses/Title	Semester Hours
EDUO 611 Techniques and Problems in Ed. Research	3
EDUO 710 Leadership Theory and Practice in Educational Organizations	3
EDUO 718 Policy, Ethics, and Politics in Education	3
EDUO 716 Hist of Higher Ed	3
EDUO 720 Assessment, Evaluation and Accountability	3
EDUO 719 Diversity and Equity in Education	3
STAO 600 Statistics	3
EDUO 722 College Student Dev.	3
EDUO 832 Quantitative Research Methods	3
EDUO 831 Qualitative Research Methods	3
EDUO 833 or 834 Advan. Quantitative./Qualitative	3
EDUO 724 Organization and Governance	3
EDUO 814 Literature Review	3
EDUO 802 Ph.D. Comprehensive Exam	0
EDUO 723 Legal issues in Higher Education	3
EDUO 839 Dissertation Research Seminar	3
EDUO 712 Higher Education Finance	3
EDUO 840 Dissertation Research I	4
EDUO 841 Dissertation Research II	4
EDUO 842 Dissertation Research III	4
EDUO 843 Dissertation Defense	0
TOTAL CREDITS	**60**

Master of Divinity in Religious Studies

The program is designed to: (1) prepare men and women for excellence in pastoral leadership, theological scholarship and community service; (2) provide university-based comprehensive and advanced knowledge in the core areas of religion and theology, and (3) provide students with the opportunity to acquire and cultivate a body of specialized knowledge that will prepare them to become leaders of the church, community and academy.

Core Cognate	**Credit**
RELO 611 – Advanced Studies in Old Testament	3
RELO 612 – Advanced Studies in New Testament	3
RELO 621 – Biblical Hermeneutics	3
RELO 622 – Biblical Exegesis	3
RELO 627 – The Phenomenon of Religion	3
RELO 628 – World Religions: Christian Context	3
RELO 631 – Systematic Theology II	3
RELO 633 – Christian Ethics and Theology	3
RELO 641 – Church History I	3
RELO 642 – Church History II	3
RELO 650 – Introduction to Pastoral Care	3
RELO 651 – Congregational Care:	3
TOTAL	**45**

Communication Cognate	**Credit**
RELO 614 – Hebrew Languages and Tools	3
RELO 624 – Greek Language and Tools	3
TOTAL	**6**

Field Based Education Requirements	**Credit**
RELO 690 – Supervised Practicum I:	3
Group Dynamics	
RELO 691 – Supervised Practicum: Pastoral	3
Limits and Authority	
RELO 697 – Leadership Internship	3
RELO 698- Leadership Project & Assessment	3
TOTAL	**12**

Pastoral Leadership Emphasis	**Credit**
RELO 680 – Pastoral Formation Module I	3
Self-Care: Pastoral Ethics and Etiquette	
RELO 682 – Pastoral Formation Module II	3
Organization: Organizational Leadership	
RELO 684 – Pastoral Formation Module III	3
Administration: Church Leadership/Management	
RELO 684 – Pastoral Formation Module IV	3
Missions: Models of Evangelism & Discipleship	
TOTAL	**12**

Executive Ministry Emphasis	**Credit**
RELO 680 – Executive Formation Modules I Self	3
Care: The Executive Minister	
RELO 682 – Executive Formation Module II	3
Organization: Organized Leadership and Development	
RELO 684 – Executive Formation Module III	3
Strategic Planning: Managing Change and Resolving Conflict	
RELO 686 – Executive Formation Module IV:	3
Infrastructure Building and Supporting the Healthy Church	
TOTAL	**12**

The Graduate College

Graduate education is a basic component of lifelong personal and intellectual development, and is often a prerequisite for professional and community leadership. The Graduate College administers all post-baccalaureate degree programs at Hampton University. The curricular emphasis is professional and scientific in order to meet specific needs of the university, its schools and departments, students, and the community. Lifelong educational opportunities are provided in support of Hampton University's mission to serve students with diverse national, cultural and economic backgrounds. The Graduate College recognizes the traditional commitment of Hampton University to provide educational opportunities to all students, those with outstanding undergraduate education, as well as those with other levels of academic preparation. A supportive and stimulating environment is maintained in which programs are designed to:

1. provide for the development of professional skills both at the entry level and at the advanced level of personal and professional development;
2. provide continuing and professional education to various segments, including graduates seeking immediate entry to graduate school, members of the community in professional, technical, managerial and other occupations; and,
3. provide direction and assistance to all areas in the university for the development of research and operation of graduate courses and programs.

The Graduate College stresses research and teaching and is dedicated to student development emphasizing analytical and critical thinking, independent and original research, and effective communication. The Graduate College coordinates and administers the graduate work provided by all academic areas of the university; and ensures that appropriate areas of graduate study are available in the fields of education, human services, the health professions, the sciences, business and other areas. Special opportunities that are available for students include research participation, graduate and professional school preparation and other enrichment and training opportunities. Formal partnerships and collaborations have been formed with many organizations and facilities, such as the Virginia Living Museum, the Science Museum of Virginia, the Thomas Jefferson National Accelerator Facility, and with research universities and professional schools in health-related areas. These opportunities are made available through individual faculty research grants and contracts, and through research centers. The research centers include the Center for Advanced Medical Imaging (CAMI), the Center for Atmospheric Science (CAS), and the Center for Fusion Research and Training (CFRT),the Center for the study of the Origin, Structure of Matter (COSM), the Hampton University Proton Therapy Institute (HUPTI), the Hampton University Cancer Research Center (HUCRC), the Hampton University Skin of Color Research Institute (HUSCRI), the Center of Academic Excellence in Cyber Defense Education (CAE-CDE), and Zebrafish Facility.

The Graduate Council

The Graduate Council formulates standards and regulations affecting all graduate curricula and work leading to a graduate degree and institutes said standards and regulations as delegated by the graduate faculty. The Council is composed of the Chancellor and Provost, Dean of the Graduate College, or designee, directors, the Graduate College counselor, one graduate student, plus one faculty representative from each graduate and professional program area. The Graduate Council shall serve and act on behalf of the faculty and students in the Graduate College and shall make recommendations to the Office of the Chancellor and Provost for appropriate action.

Degrees and Programs

Hampton University's Graduate College offers programs leading to the Master of Architecture, Master of Arts, Master of Business Administration, Master of Science, Master in Teaching, Specialist in Education, Doctor of Physical Therapy and the Doctor of Philosophy degrees in a comfortable environment with a concerned, productive faculty.

The Graduate Programs

Degree	Major (Emphasis)
Master of Arts	Biology (Biology, Biology/ Environmental Science) Communicative Sciences and Disorders Counseling (General Counseling) [online and face-to-face] College Student Development/ Student Affairs, Community Mental Health, Community Mental Health/School, Community Mental Health/Pastoral, Addiction Counseling Education (Elementary Education) Educational Leadership [face-to face and online]
Master of Business Administration	Business Administration (2yr/5yr)
Master of Science	Applied Mathematics (Statistics & Probability, Computational, Nonlinear Science) Atmospheric Science Biology (Biology, Biology/Environmental Science) Chemistry Computer Science Cyber Security [online] Medical Science Nursing (Administration, Education, and Family Nurse Practitioner) Physics (Medical, Nuclear, and Optical) Planetary Science Sport Administration [face-to-face and online] (Organizational Behavior and Sport Business Leadership, Intercollegiate Athletics, International Sport)
Master in Teaching	Endorsements in Biology [6-12] Chemistry [6-12] English [6-12] Mathematics [6-12] Music [PK-12]

Education Specialist	Counseling [online and face-to-face]
Doctor of Philosophy	Atmospheric Science
	Business Administration [online]
	Counseling Education and Supervision [online]
	Educational Management (Higher Education, PK-12 Superintendent [Online]
	Nursing (Family and Family Related, Nurse Educator) [Online]
	Physics (Medical, Nuclear, and Optical)
	Planetary Science
Doctor of Physical Therapy	Physical Therapy

Organization of Graduate Students

This organization represents all Hampton University graduate students in the capacity of acting as a liaison between the graduate faculty/staff and graduate students; of promoting academic excellence in all areas by expressing concerns relative to the graduate program; and of impressing upon the graduate/undergraduate students and the surrounding community the existence of the graduate program through recruiting, attending conferences and sponsoring educational events reflecting the constructive concerns of the graduate student body. Membership is open to all graduate students at Hampton University.

Graduate Admissions

The Graduate College enrolls outstanding graduates of accredited institutions of higher education and prepares these students for exciting careers. The requirements for admission to the doctoral degree programs are more stringent than the requirements for admission to the master's degree programs.

Basis for Admission

All applicants for graduate study must:

- Hold a bachelor's degree from a regionally accredited or internationally renowned college or university;
- Have an undergraduate major or sufficient undergraduate preparation in the field in which they plan to conduct graduate study, or in a closely related field;
- Have an undergraduate record of above average scholarship (2.5 or higher on 4.1 scale for master's programs and 3.0 or higher for doctoral programs;
- Submit a completed application and the following credentials to the Graduate College:
- Official transcripts of all undergraduate and graduate work indicating degrees earned;
- *Official scores of the Graduate Record Examination (General Test), the Graduate Management Admission Test (MBA applicants), the Medical College Aptitude Test or Dental Aptitude Test (Medical science applicants);
- Two recent letters of recommendation from individuals familiar with the professional and personal qualifications of the applicant;
- Personal Statement;
- Application Fee;
- Be recommended for admission by the school/department to which he or she applies;
- Meet required health standards and requirements of Hampton University.

**Applicants applying with a conferred M.A. or M.S. degree from an accredited United States College/University are not required to complete the GRE or submit GRE scores.*

Additional requirements or an approved exception may exist for specific programs and doctoral programs of study and are listed with the description of the program.

Compliance with the regulations for submitting the required credentials for admission is mandatory. International applicants must submit official records of all higher educational training, including certificates of degrees and the dates the degrees were conferred. International applicants must also submit evidence of financial support as a condition for the issuance of the I-20. Applicants whose native language is not English must take the Test of English as a Foreign Language (TOEFL), which is administered several times a year throughout the world. The Graduate College requires a score of at least 71 on the TOEFL-iBT examination or 197 on the TOEFL-CBT examination. In lieu of the TOEFL, applicants may submit an International English Language Testing System (IELTS) score. This score must be at least a 6.5.

Regular Admission:

Applicants who satisfy all admission requirements of the Graduate College and of the school or department to which they have applied will be granted regular admission.

Provisional Admission:

This status is a temporary classification that applies to students who have been reviewed by the admitting department and additional requirements have been imposed to determine the student's academic ability and/or to have academic deficiencies addressed. Students must submit all required documents, including official transcripts, test scores, and letters of recommendation, as part of the admission packet. Applicants must fulfill requirements identified by the admitting department in the time (up to a maximum of one year) and manner specified in the written notification of provisional admission. Extension to time beyond one year requires an approved petition. The petition must be approved by the Academic Dean, Department Chairperson, Graduate Program Coordinator, and the Graduate College Dean.

Probationary Admission:

Applicants who have less than a 2.5 cumulative grade point average from an accredited institution may be admitted in a probationary status. They must show strong evidence of capability in their field and have adequate writing and computational skills. The applicants must submit a completed application with all supporting credentials to the department for review. The department may recommend the applicant for probationary admission; however, the decision to admit under this special condition will be made by the Dean of the Graduate College. Probationary students must attain a

grade point average of no less than a "B" (3.0) by the end of one semester of full-time study or after the first nine (9) credit hours of part-time study. Continuation in the graduate program will be permitted on favorable appraisal of the student's performance. The student will be offered regular admission upon successful completion of probationary prerequisites. The probationary admission status of a graduate student who does not demonstrate evidence of capability will be withdrawn from the University. This constitutes dismissal of the student.

Re-Entering Student Applicants

Students enrolled in the Graduate College are generally required to maintain their official enrollment status with the University until their degree requirements are fulfilled. Failure to enroll for any semester after the initial enrollment term constitutes a withdrawal from the program and necessitates application for readmission to the Graduate College. Former graduate students seeking re-entry must file an application with the Dean of the Graduate College prior to the term of planned re-entry and follow the procedures enumerated below. Upon re-entry the student will follow the catalog requirements in place at the time of re-entry. Courses completed prior to reentry may be accepted toward degree requirements upon the recommendation of the Academic Dean, Department Chair, the Graduate Program Coordinator and Dean of the Graduate College. All students applying for re-entry to the Graduate College must abide by the following:

1. Submit an application for readmission;
2. Provide copies of transcripts of all academic work at other institutions completed during the leave of absence;
3. Submit a new personal statement and letters of recommendation if the leave of absence is one academic year, or greater;
4. Submit an appeal of any academic or disciplinary dismissal or suspension, if applicable, to the Graduate Council by submitting such in writing through the Academic Dean, Department Chair, Graduate Program Coordinator, and the Graduate College Dean.

Special (Non-Degree) Student

An applicant who plans to take courses for personal enrichment, professional development, or certification will be classified as a special student if admission is granted. The special student must hold a bachelor's degree with no less than a 2.5 cumulative grade point average from an accredited institution. Applicants for special or non-degree status are required to provide the Graduate College with an official baccalaureate transcript from an accredited institution and obtain the approval of the department, and/or the Graduate College to enroll in University courses as a special student.

Additional rules governing the admission of special students include the following:

1. Students seeking a change of status from special to a degree program must submit a new completed application packet for admission to the desired degree program through the Graduate College. This should be done before the completion of nine (9) hours of coursework at Hampton University.
2. A maximum of nine (9) semester hours of credit with a grade average of "B" or better, earned while a special student, may be applied toward fulfillment of the requirements for a regular degree program.

Health Requirements

The University requires every graduate student to file a complete physical examination form and a copy of his/her immunization record with the Health Center. Specific requirements are listed in the Student Health Center section of this catalog and on that unit's website: http://www.hamptonu.edu/studentservices/health/health_svcreq.cfm. A student who fails to comply with these stipulations will be prohibited from registering for or attending classes.

English Proficiency

Demonstration of English proficiency is required of each degree-seeking graduate student. In order to be exempt from English 503 a student must earn 150 on the verbal portion of the General Test or 4.0 on the Analytical Writing Assessment of the GRE, or earn a 525 on the TOEFL. Applicants submitting an IELTS score must have earned at least a 6.5. Graduate students admitted to the Medical Science program may demonstrate English proficiency on the Pre-2015 MCAT (minimum of 6 on Verbal Reasoning and on essay) or Post-2015 MCAT (minimum score of a 124 on the Critical Analysis and Reasoning Skills section) or the DAT (minimum total score of 13 on Reading Comprehension). Students whose scores fall below the minimum for the respective examination are required to enroll in English 503 during the first year of enrollment. This course carries three (3) semester hours credit, requires a minimum passing grade of "B", and is included in all GPA calculations, but will not count towards any degree course requirements.

Change of Major Program

Students wishing to change to a graduate program outside their present general area must submit an application to the new program along with all of the credentials required of new applicants. A student must submit to the Graduate College a "Petition for Change of Major Form" to change major and/or concentration within the same general field. Whenever a program change is effected, the cumulative graduate grade-point average remains intact.

Policies Governing a Second Master's Degree

A student may not earn more than one master's degree within the same general field from Hampton University and two master's degree programs may not be pursued simultaneously. The following restrictions apply to the second master's degree:

1. A maximum of nine (9) semester hours can be applied from the first master's degree earned at Hampton University to a second master's degree program. Extension of time beyond the seven-year limit must have the approval of the department and the Graduate Council.
2. Courses of a new degree sequence undertaken before requirements for the first-degree program are completed may not be applied to the second-degree program except as indicated in the paragraph above.

The general fields currently identified in the program are:

Applied Mathematics	Cyber Security
Atmospheric Science	Education
Biology	Master in Teaching
Business	Medical Science
Chemistry	Nursing
Communicative Sciences & Disorders	Physics
	Physical Therapy
Computer Science	Planetary Science
Counseling	Sport Administration

See the subsection Fees and Expenses in the General Information section. In determining the cost of education at Hampton University, the administration has maintained the large items of expense—tuition, meals, and room—at the lowest possible figures consistent with satisfactory service. In estimating the total cost of a college year at Hampton, the student should not forget to include amounts for books and supplies, personal items, clothing, travel, dental and medical expenses other than clinical and infirmary services provided by the University, and charges for uniforms and equipment, which vary according to curriculum chosen. The cost of education depends upon the college and/or campus.

The University reserves the right to increase charges for tuition and living expenses if costs of materials and services make it necessary.

Course Load Limits

Students enrolled in nine (9) or more credit hours of graduate level courses during the fall and spring semesters are considered to be enrolled as full-time students. In the summer, students enrolled in six (6) hours are considered full-time students.

Payment of Fees

The cost of registration for the 2020-2022 school year is outlined in the General Information section. Additional fees may apply as explained below. Students should pay special attention to the description of these items. Please note that the Application Fee is payable only once and is not refundable. Payments should be sent by Cashier's Check, Money Order, MasterCard, Visa, Discover or American Express made payable to Hampton University and addressed to the Office of the Treasurer, Hampton University, Hampton, VA 23668. Online Payments may be made by using our website at www.hamptonu.edu, click on Online Resources and then click on Online Payment-Student. All payments should be clearly marked as to their purpose and for whose account the money is intended. Funds mailed for personal uses, books, supplies, etc. should be made payable to the student and mailed directly to the student. No personal checks will be accepted.

Students who receive financial aid from the University may deduct one-half of the total aid received from the expenses each semester. All other scholarships, loans and gifts will be applied to the student's account when received by the University.

Explanation of Fees

Graduate students will pay the following fees: Application Fee prior to admission; the Comprehensive Fee, Registration Fee and Tuition each semester; and other fees, as applicable. These fees are listed in the Fees and Expenses subsection of the General Information section. The Refund Policy is also presented in a subsection.

Student Financial Aid

The Office of Financial Aid is responsible for awarding all types of student financial assistance. All students applying for aid are required to file a Free Application for Federal Student Aid (FAFSA) application. The financial aid program at Hampton University is designed to assist needy and/or academically qualified undergraduate and graduate students in meeting their reasonable educational expenses (tuition and comprehensive fees, room and board, books and supplies, personal expenses and transportation). The University makes all possible attempts to assist needy and/or academically qualified students to prepare them to accomplish their educational aspirations and goals. Students are expected to demonstrate, wherever possible, sacrifice of earned resources (i.e., savings from employment) and family contributions for educational development at the University. Eligible students should note that financial aid should be considered as a supplement to the funds provided by the family.

A limited number of teaching, research, and laboratory or resident hall assistantships as well as fellowships are available to qualified graduate students. Graduate assistantships are designed to provide students a modest level of support to assist them with their educational and living expenses while they pursue graduate work. These assistantships are generally reserved for full-time degree seeking students. Under a limited number of circumstances, the Graduate College can approve awards for other categories of graduate students. Offers of assistantships and fellowships are made contingent upon the applicant's acceptance as a regular graduate student by the Graduate College. Students cannot be obligated for more than 20 hours of work per week for these assistantships.

Additional details are provided in the Financial Aid portion of the General Information section of this Academic Catalog to address the application process and eligibility criteria.

Academic Policies and Regulations for Graduate Students

Academic policies and regulations that are specific to the Graduate College are provided below. The Graduate College adheres to the general Hampton University policies and regulations printed in this Academic Catalog in the areas of registration, grading, class attendance and student grievance. The minimum standard for grad- uate work leading to a master's or doctoral degree is a 3.0 grade point average. As a result, the requirements for obtaining "I" and "WP" grades and for maintaining Good Academic Standing are one letter grade higher than the requirements for undergraduate students. In addition, the time period for removing an "I" grade is reduced to one semester for graduate students. Grades below "C" carry no credit. However, such grades will be used in computing the overall grade point average. An earned grade below "C" in any required course requires that the course be repeated. An accumulation of no more than eight (8) hours of grades below "B" may be counted toward degree requirements

Minimum Residence for Master's Degree

At least 24 semester hours must be completed in residence for face-to-face students,which may include a maximum of eight (8) hours earned by special examination, for a master's degree. Online master's degree students must complete at least 24 semester hours of coursework at Hampton University, which may include a maximum of eight (8) hours earned by special examination, for a master's degree.

Time Limits

1. All work accepted at the time the student is admitted to candidacy must have been earned within a five-year period prior to admission to candidacy. This applies to credit earned at Hampton University as well as to transfer credit. Courses more than five (5) years old must be validated by written examination or by repeating the course(s).
2. All work for the master's degree must be completed within a period of four (4) years after initial enrollment in the Graduate College.
3. All requirements for the Ph.D. must be completed within seven (7) years after initial enrollment in the Graduate College.

Transfer Credit

A student entering a program may transfer up to nine (9) semester hours of graduate coursework towards a master's or doctoral degree. Transfer credit that is officially accepted should be entered on the student's official transcript at the University no later than the end of the first year of enrollment as a regular degree-seeking student. Coursework successfully completed in an accredited graduate school may be transferred to Hampton University toward the fulfillment of course requirements if the following conditions are met:

- Credit has been earned within five (5) years of the time the student is admitted.
- A grade of "B" or better has been earned in courses for which transfer of credit is being sought.
- Credit to be transferred are approved by the Graduate College.

Students planning to take a course outside the Graduate College should consult their advisors and file with the Graduate Office an Evaluation of Transfer Credit Form. No Continuing Education Units (CEUs) or comprehensive exams from other institutions are transferable. Transfer credit is officially accepted and entered on the record at the time the student is admitted. Credit earned as part of a baccalaureate degree program upon which a student is admitted to the Graduate College will not be accepted as transfer credit for the graduate degree unless specifically noted in the student's approved degree program.

Credit by Examination

A maximum of eight (8) hours may be counted toward degree requirements. Courses previously taken within the time limits given above may not be repeated by Credit by Examination. The granting of credit by examination must be approved on an individual basis by the Graduate Council and the Dean of the Graduate College. Credit is awarded after the examination has been passed and the appropriate fees paid.

Regulations for Probation and Academic Dismissal of Graduate Students

1. A student whose overall grade point average falls below 3.0 at the end of any term will be placed on academic probation and must raise this average to 3.0 by the time he or she completes nine (9) additional hours. A student who fails to comply with this requirement will be subject to dismissal from the degree program or from the Graduate College by the Graduate Council based on the recommendation of the Department Chair, Graduate Program Coordinator or the Dean of the Graduate College.
2. The University reserves the right to terminate the registration of any student whose record falls below the standard acceptable to Hampton University. The department, with the concurrence of the Graduate Dean, can recommend to the Graduate Council that a student be withdrawn from the degree program for unsatisfactory performance.

General Requirements for Post-Baccalaureate Degrees

The graduation requirements of the University, which must be met for completion of a graduate degree program, are those published in the Academic Catalog in force at the time of the student's admission to the Graduate College. The program coordinator with the approval of the Academic Dean, Department Chair and the Dean of the Graduate College, may request to waive or substitute coursework for departmental requirements with approval of the Chancellor and Provost. If the student's course of study is interrupted by failure to enroll for successive terms or because of a change of major, the graduation requirements, which must be met, are those in force at the time that he or she re-enrolls. See program listings in this Catalog for specific major and additional requirements.

The Master's Degree

Each student is responsible for knowledge of, and compliance with, the general regulations of the Graduate College and Hampton University.

To be eligible for a master's degree, a student must:

- fulfill all of the course requirements of an approved plan of study with at least a "C" grade, or higher as specified by the approved degree plan;
- have earned no more than eight (8) credit hours below a "B" grade;
- completion of ENG 503 with an earned grade of "B" or higher (for those students required to enroll in the course)
- be admitted to candidacy for the master's degree;
- have a minimum of one-half the required coursework that is open only to graduate students (600, 700 and 800 levels);
- be enrolled during the final term of graduation;
- remove all incomplete grades from the academic record; and,
- have an overall cumulative grade point average of at least 3.0.

At the time of applying for candidacy in a major where there is a plan option, the student should indicate the intent to follow Thesis Plan or the Comprehensive Examination Plan. The decision should be made through consultation with the student's advisor.

Thesis Plan

This master's degree plan requires the completion of a MINIMUM of 30 hours of coursework, including a thesis which yields three (3) to four (4) semester hours of credit and the passing of an oral examination. There should be a MINIMUM of 18 semester hours of coursework in the major field. The remaining hours will be in courses as required and electives as advised.

The student should plan the proposed thesis in the research course required for the course sequence. The department chairperson must officially approve the chairperson or advisor recommended for the thesis committee as well as the other members of the committee. The committee selection process includes consultation between the student and the appropriate faculty members, including the designated academic advisor. The thesis committee will be responsible for recommending to the Graduate College the approval of the thesis outline and guiding the thesis research to its completion.

The candidate must write a thesis based on the scholarly investigation of a problem involving the use of research instruments and techniques; it must be written in acceptable English. Copyrighting is optional for the thesis, but is available. If this option is chosen, a copyright page should be placed in the manuscript following the title page. Guidelines for thesis preparation are shown in the Graduate College Thesis and Dissertation Manual.

Students who have completed all requirements with the exception of the thesis or thesis-based projects and have previously registered for the thesis class or a comparable course in the student's major are required to register each semester for thesis continuation or a comparable course in the student's major until requirements are completed.

Comprehensive Examination Plan

This master's degree plan requires the completion of a MINIMUM of 32 hours of coursework and the passing of a final Master's Comprehensive Examination. The purpose of this examination is to determine the degree to which the candidate is able to demonstrate scholarship in a field and the ability to integrate the subject matter by making logical applications in specific situations. The student must submit a completed Comprehensive Examination Application to the Graduate College (one semester prior to the planned examination date) after the following requirements have been met:

1. The Application for Admission to Candidacy for Degree Completion has been approved.
2. All incomplete coursework (other than approved exceptions such as ongoing research projects) has been removed.
3. The student must be enrolled in the Comprehensive Examination course (702, or 802 for the doctoral examination) in the student's major to take this examination.
4. The cumulative grade point average is 3.0 or better.

The student is expected to take this examination for the first time during the semester or term in which he or she expects to complete all requirements for graduation. If a student fails the Comprehensive Examination, he or she must take the examination again during a subsequent semester or summer. A student who fails the examination a second time must obtain approval from the Graduate Council to take the examination a third time. No students will be permitted to take the examination more than three times.

Oral Defense

The master's degree plan with a thesis track requires the successful completion of an oral defense. The student will conduct the oral defense in the same term of their final semester.

Other Master's Degree Plans

There are two master's degree-programs that allow degree completion without a thesis or comprehensive examination. The Master of Business Administration requires a MINIMUM of 36 hours of coursework as specified in this catalog. The Master in Teaching programs require a MINIMUM of 31 to 33 hours of coursework earned at the graduate level as specified in the sequences printed in this catalog.

Procedures for Application for Admission to Candidacy for Degree Completion

Admission to a Master's degree program does not carry with it an inherent admission to degree candidacy. An application for admission to candidacy for the specific degree must be completed and submitted for approval to the Graduate College. The approved Application for Admission to Candidacy for Degree Completion serves as a formal Degree Plan of Study to fulfill the degree requirements. This Plan must be approved by the coordinator of the student's graduate degree area and by the Dean of the Graduate College. The student may not deviate from the approved Degree Plan of Study without permission from the Dean of the Graduate College. Courses taken prior to the filing of an approved Degree Plan of Study will not be counted toward degree requirements unless they are approved as a part of the Plan.

Candidacy status will be awarded after the student has:

1. attained Regular Admission Status;
2. earned at least nine (9) semester hours of graduate courses in the candidate's major field (excluding prerequisite courses) with at least an overall grade point average of "B" (3.0);
3. no "Incomplete" coursework (excluding research and thesis);
4. demonstrated English proficiency by official admissions test score (GRE, MCAT, DAT, TOEFL) or successful completion of ENG 503;
5. demonstrated sufficient promise to be permitted to proceed towards the degree in terms of personal and professional qualifications;
6. formed a thesis or dissertation committee, if following the Thesis Plan; and,
7. satisfied the teaching assistant requirement, if a physics students.

Graduation Applications

An approved Application for Admission to Candidacy for Degree Completion serves as the student's initial application for graduation. If the student fails to complete all requirements for the projected term on that application, a Graduation Update application must be submitted to the Graduate College for approval. Candidates for graduation must meet the following requirements:

a. be admitted to candidacy prior to the semester or summer session during which the degree is to be awarded;

b. have an approved application, or update application, for graduation;

c. have earned no more than eight (8) credit hours below a "B" grade;

d. have an approved advisory committee from on file in the Graduate College, if pursuing the thesis track;

e. Have an earned grade point average of at least 3.0.

The Doctoral Degree

The following requirements/regulations apply to the Doctor of Physical Therapy and Doctor of Philosophy degrees. See the School of Pharmacy section of this Catalog for details about the Doctor of Pharmacy degree.

To be eligible for a doctoral degree, a student must:

- earn a minimum number of credit hours beyond the baccalaureate level as specified for that graduate program;
- fulfill all of the course requirements of an approved plan of study;
- be admitted to candidacy for the doctoral degree;
- remove all incomplete grades from the academic record;
- be enrolled during the final term of graduation;
- have earned no more than eight (8) credit hours below a "B" grade;
- have an approved advisory committee form on file in the Graduate College;
- have an overall cumulative grade point average of at least 3.0; and,
- Doctor of Philosophy degree candidates must also conduct original research, write and successfully defend a doctoral dissertation.

The Doctor of Physical Therapy Degree

1. The Doctor of Physical Therapy (D.P.T.) degree is awarded to those students who have met all requirements of the Graduate College and the Department of Physical Therapy. The applicable Graduate College requirements include: Admission to Candidacy for the D.P.T. degree prior to the semester or summer session during which the degree is to be awarded.
2. No "Incomplete" course work.
3. No more than eight (8) credit hours below a "B" grade earned.
4. An earned grade point average of at least 3.0.
5. Completion of the approved program of study presented under the heading Department of Physical Therapy in this Catalog.

The Doctor of Philosophy Degree

The Doctor of Philosophy (Ph.D.) degree is awarded to those students who have met all requirements of the Graduate College and the specific programs. The Ph.D. degree is awarded to those demonstrating outstanding achievement in a specialized field of scholarship and ability for independent research. The applicable Graduate College requirements include:

1. Admission to Candidacy for the Ph.D. degree.
2. No "Incomplete" course work.
3. No more than eight (8) credit hours below a "B" grade earned.
4. An approved advisory committee form on file in the Graduate College.
5. An earned grade point average of at least 3.0.
6. Completion of the approved program of study presented in this Catalog.

Procedures for Application for Admission to Candidacy for Degree Completion

Admission to a doctoral program does not carry with it an inherent admission to degree candidacy. An application for admission to candidacy for the specific doctoral degree must be completed and submitted for approval to the Graduate College. The approved Application for Admission to Candidacy for Degree Completion serves as a formal Degree Plan of Study to fulfill the degree requirements. This Plan must be approved by the coordinator of the student's graduate degree area and by the Dean of the Graduate College. The student may not deviate from the approved Degree Plan of Study without permission from the Dean of the Graduate College. Courses taken prior to the filing of an approved Degree Plan of Study will not be counted toward degree requirements unless they are approved as a part of the Plan.

Candidacy status will be awarded after the student has:

1. Satisfied all admissions requirements, including the English proficiency requirement;
2. Completed all core courses;
3. Maintained a cumulative GPA of at least 3.00;
4. Passed the Doctoral Qualifying Examination and assembled an approved dissertation research committee in the case of the Ph.D. degree'
5. Satisfied the teaching assistant requirement in the case of the Physics Program.

Graduation Applications

An approved Application for Admission to Candidacy for Degree Completion serves as the student's initial application for graduation. If the student fails to complete all requirements for the projected term on that application, a Graduation Update application

must be submitted to the Graduate College for approval. Candidates for graduation must meet the following requirements:

1. Admission to candidacy prior to the semester or summer session during which the degree is to be awarded.
2. An approved application, or update application, for graduation.
3. No "Incomplete" course work (approved dissertation or ongoing research project excluded).
4. No more than eight (8) credit hours below a "B" grade earned.
5. Completion of ENG 503 with an earned grade of "B" or higher, if required to enroll in the course.
6. An approved dissertation committee and research topic.
7. An earned grade point average of at least 3.0.

Oral Defense

The doctoral degree plan requires the completion of an oral defense. The student will conduct the oral defense in the same term of their final semester.

The Doctoral Qualifying Examination

The Doctoral Qualifying and/or Comprehensive Examination is designed to determine the ability of a student to pursue independent study in the discipline at the level required for earning the doctoral degree. Details about content tested, depth of knowledge expected, and frequency of offering can be found in the specific program description in this Catalog. Students will be permitted to sit twice for the examination.

Dissertation Regulations

Hampton University requires a dissertation from all candidates for the Doctor of Philosophy degree. The dissertation must be presented in a scholarly, well-integrated, properly documented manner, reporting the original work done by the student under the supervision of the advisory committee. This research is monitored by a dissertation committee appointed by the Dean of the Graduate College (upon departmental recommendation). The student must successfully complete the oral dissertation defense administered by the dissertation committee. The dissertation defense date must be approved by the Graduate College and announced to the university community.

Upon completion all dissertations will be made publicly available through the Hampton University library to further the university's mission of research and scholarship. Copyrighting is optional for the dissertation, but it is available. If this option is chosen, a copyright page should be placed in the manuscript following the title page. Students may obtain guidelines concerning the preparation of the dissertation and the acceptable forms for submission of dissertations from the Graduate College.

Applied Mathematics

The Mathematics Department offers graduate courses leading to the Master of Science degree in Applied Mathematics. The graduate program in Applied Mathematics prepares the successful candidate to pursue a Ph.D. program or assume immediate employment in business, industry or government. To meet these goals, the program is designed to provide opportunities for advanced study and research in the application of mathematical methods to real world problems. The primary research interests of the graduate faculty include stochastic processes, time series, applied statistics, computational fluid dynamics, discrete mathematics, numerical analysis, operator theory, scientific computing, functional analysis, and controlled thermonuclear fusion. The major course offerings consist of topics such as numerical analysis, differential equations, stochastic processes, nonlinear dynamics, nuclear fusion, and statistics. The prospective student should bear in mind that the utility of a mathematician in the job markets lies in his/her ability to view problems from a novel vantage point and to distill those few fundamental mathematical aspects of the problem which ultimately hold the key to its solution.

Master of Science – Applied Mathematics

Requirement	Description	Credit Hours
Mathematics 504	Advanced Linear Algebra	3
Mathematics 511	Advanced Ordinary Differential Equations	3
Mathematics 513	Elements of Real Analysis	3
Mathematics 515	Functions of a Complex Variable	3
Mathematics 681	Thesis	4
Mathematics 702	Master's Comprehensive Examination	-
600-Level Electives	As approved by the Department	15
Electives	As approved by the Department	3
TOTAL CREDITS:		**34**

Upon completion of the four core courses, the student and his/her advisor may tailor the remaining courses so that the student may generally specialize in one of the three tracks. After completing the requirements, the student can receive a Master of Science (M.S.) Degree in Applied Mathematics with a concentration in Statistics and Probability, Computational Mathematics, or Nonlinear Science.

Statistics and Probability Track

(MAT 509 Introduction to Probability, MAT 606 Probability Theory, MAT 607 Mathematical Statistics, MAT 624 Applied Time Series Analysis)

Computational Mathematics Track

(MAT 506 Numerical Analysis I, MAT 608 Partial Differential Equations I, MAT 614 Methods of Applied Mathematics I, MAT 616 Advanced Numerical Analysis)

Nonlinear Science Track

(MAT 512 Elements of Mathematical Modeling, MAT 602 Vector Analysis, MAT 608 Partial Differential Equations I, MAT 639 Nonlinear Dynamics I)

If a student is pursuing Plan A (Thesis Option - Total 34 credit hours) he/she must take MAT 681 (Thesis with 4.0 credits) and 18 credits from graduate mathematics courses as approved by the department with at least five courses at the 600 level. If the student is pursuing Plan B (Comprehensive Exam Option- Total 36 credit hours) he/she must take an additional 24 graduate credits as approved by the department with at least six courses at the 600 level.

Sample Schedule (Thesis Option)

YEAR 1

Semester 1:	MAT-504, MAT-511, 600-Level Elective
Semester 2:	MAT-513, MAT-515, 600-Level Elective

YEAR 2

Semester 1:	three 600-Level Electives
Semester 2:	MAT-681, 500-Level or higher Elective

Atmospheric and Planetary Sciences

The Department of Atmospheric and Planetary Sciences (APS) provides a program in graduate education leading to the M.S. and Ph.D. degrees with concentration either in Atmospheric Science, or in Planetary Science. Students from a variety of academic disciplines are welcome, and the curriculum maintains flexibility to match the interests of individual students. Academics, research, and service to the scientific community, the university, and the public are integral elements of the mission of the department. A high ratio of faculty to students ensures that students at all levels receive mentoring, training, and guidance.

The principal objective of the graduate program is to prepare students for successful careers and leadership roles in private and government research laboratories, and in academia. Essential support is provided by the department's research center, the Center for Atmospheric Science (CAS). Intellectual vitality fostered by active research is integral to Hampton University's institutional vision, and CAS is a key resource for students and faculty. The center hosts research faculty, support personnel, and infrastructure required to maintain vigorous programs of sponsored research. Center personnel are principal investigators for scientific instrumentation on current and past space missions to study the atmosphere and the space environment of Earth. Current spacecraft missions include CALIPSO, Geotail, TIMED, and the AIM mission (Aeronomy of Ice in the Mesosphere), which is managed by Hampton University and CAS for the National Aeronautics and Space Administration (NASA). The center also maintains a LIDAR observatory on campus to provide ground-based observations of the atmosphere in support of space missions and for basic research.

Research and education partners include the National Aeronautics and Space Administration (NASA), the the National Oceanic and Atmospheric Administration (NOAA), National Science Foundation (NSF), the U.S. Environmental Protection Agency (EPA), and the U.S. Department of Defense (DOD), and approximately 20 research universities, laboratories, and other scientific organizations in the

U.S. and abroad. Hampton University is a member university of the National Institute of Aerospace (NIA); a consortium of universities offering graduate education in aerospace-related sciences and engineering. The NIA is headquartered in Hampton, and students can receive credit for graduate-level courses offered by the partner schools on-site at the NIA, or remotely via teleconferencing. Proximity to NASA's Langley Research Center also provides for convenient access to the many research opportunities offered there.

Admission

The program welcomes students from atmospheric science, planetary science, astronomy, chemistry, computer science, engineering, environmental sciences, mathematics, physics, and other areas. Requirements of incoming students include a 3.0 GPA, or higher, as an undergraduate, and successful completion of 2-3 semesters of calculus and 2 semesters of calculus-based physics. Completion of additional coursework in differential equations, linear algebra, and a computer programming language is highly desirable. Applicants must submit GRE scores, 3 letters of recommendation, and a personal statement relating to their interest in the program. International students must submit scores from the TOEFFL examination.

Master of Science Degree Programs in Atmospheric Science and Planetary Science

The thesis-based Master of Science (M.S.) degree program provides a graduate-level curriculum for students seeking the M.S. degree as a terminal degree, or as an intermediate step in pursuit of the Ph.D. Required coursework includes a minimum of 30 total credit hours; to include 18 hours of required atmospheric science or planetary science courses, 9 hours of approved electives, and 3 hours of thesis research. The overall grade point in this coursework must be 3.0, or higher. For completion of the degree, students are required to complete a research project and effectively communicate the results in a written thesis, to be defended before a committee of at least three members approved by the department chairperson. Additionally, students must meet all admission and completion requirements of the Graduate College, and complete a minimum of one semester as a supervised teaching assistant.

Master of Science – Atmospheric Science

Requirement	Description	Credit Hours
APS 600	Atmospheric and Planetary Sciences Seminar	1
APS 645	Atmospheric Physics	3
APS 649	Atmospheric Radiative Transfer	3
APS 660	Introduction to Atmospheric Structure and Dynamics	3
APS 662	Geophysical Fluid Dynamics	3
APS 697	Research	3
APS 698	Thesis	1
APS 700	Professional Writing and Presenting	1
APS 746	Atmospheric Chemistry	3
Electives	Selected from atmospheric and planetary sciences and related areas	9
Total		**30**

Master of Science – Planetary Science

Requirement	Description	Credit Hours
APS 600	Atmospheric and Planetary Sciences Seminar	1
APS 604	Principles of Planetary Science	3
APS 607	Magnetospheres and Plasmas	3
APS 645	Atmospheric Physics	3
APS 649	Atmospheric Radiative Transfer	3
APS 660	Introduction to Atmospheric Structure and Dynamics	3
APS 697	Research	3
APS 698	Thesis	1
APS 700	Professional Writing and Presenting	1
Electives	Selected from atmospheric and planetary sciences and related areas	9
Total		**30**

Degree Plan – Non-Thesis Master of Science in Atmospheric Science

Requirement	Description	Credit Hours
APS 645	Atmospheric Physics	3
APS 649	Atmospheric Radiative Transfer	3
APS 660	Introduction to Atmospheric Structure and Dynamics	3
APS 662	Geophysical Fluid Dynamics	3
APS 746	Atmospheric Chemistry	3
APS 750	Atmospheric Measurements	3
Other Required Courses		
APS 600	Atmospheric and Planetary Sciences Seminar	1
APS 602	APS Comprehensive Exam	1
APS 700	Professional Writing and Presenting	1
Electives	Selected from atmospheric and planetary sciences and related areas	9
Total		**30**

Degree Plan – Non-Thesis Master of Science in Planetary Science

Core Courses	Description	Credit Hours
APS 604	Principles of Planetary Science	3
APS 607	Magnetospheres and Plasmas	3
APS 645	Atmospheric Physics	3
APS 649	Atmospheric Radiative Transfer	3
APS 660	Introduction to Atmospheric Structure and Dynamics	3
APS 704	Planetary Chemistry and Dynamics	3
Other Required Courses		
APS 600	Atmospheric and Planetary Sciences Seminar	1
APS 602	APS Comprehensive Exam	1
APS 700	Professional Writing and Presenting	1
Electives	Selected from atmospheric and planetary sciences and related areas	9
Total		**30**

Doctor of Philosophy Degree Programs in Atmospheric Science and Planetary Science

The Dissertation-based Ph.D. program in atmospheric and planetary sciences at Hampton University provides advanced coursework and research experience beyond the M.S. level. The Ph.D. degree is granted to those students who demonstrate a broad level of knowledge required by the M.S. degree, a high level of expertise in a specific area of the discipline, and the ability to perform original independent research that contributes to the discipline.

The Ph.D. degree requires a minimum of 76 credit hours of coursework beyond the baccalaureate level. A student must complete 18 credit hours of core courses, as defined in the Degree Plan for the relevant major (Atmospheric Science or Planetary Science). A grade of B, or better, is required for all core courses. The core courses are tested in the APS Written Comprehensive Exam, as described in the following paragraph. A student must also complete 7 additional hours of required coursework (3 hours of APS 600, plus 1 hour each for APS 602, 700, 702 and 798), 15 hours of approved graduate level electives, and a minimum of 36 hours of dissertation research. The overall grade point average in this coursework must be 3.0, or higher. Only six hours of dissertation research will be given a letter grade; all other hours will be graded as Satisfactory/Unsatisfactory. Note that APS 602 and 702 represent the qualifying exam process for the APS Ph.D. program. A student must attempt these courses (described below) at the first opportunity after the student has completed the 6 core courses in his/her major.

The APS Ph.D. Qualifying Exam is offered twice per year, once during the Fall semester and once during the Spring semester. It consists of 2 parts: The Written Comprehensive Exam (APS 602) and the Oral Qualifying Exam (APS 702). APS 602 consists of 6 tests, given in 3 sessions over the course of 3 days. Each session is 3 hours in length, and contains written tests for 2 core courses. Each test must be passed with a score ≥ 80%. APS 702 gives the student one week to prepare a 15 minute presentation on a designated research topic, followed by questions from the student's Ph.D. committee. A student who fails one or more parts of APS 602 and/or APS 702 on his/her first attempt must repeat all failed tests at the earliest subsequent opportunity. Both APS 602 and APS 702 are graded as Satisfactory/Unsatisfactory, and a maximum of 2 attempts is permitted for each of the 7 tests (6 written exams + 1 oral exam).

Subsequent to admission to candidacy to the doctoral program, the student establishes a dissertation topic in consultation with a faculty research advisor. The topic must be approved by the student's Ph.D. committee. That committee is formed with approval of the Graduate College. The committee must have a minimum of four members, of whom at least three are Hampton University faculty, and at least one member must be from an area or department not directly associated with the student's program track (Atmospheric or Planetary). The written dissertation must be successfully defended before the Ph.D. committee, and submitted for publication to a peer-reviewed journal of the field before a degree is awarded.

Additionally, students must meet all admission and completion requirements of the Graduate College, and complete a minimum of two semesters as a supervised teaching assistant.

Degree Plan – Doctor of Philosophy in Atmospheric Science

Core Courses	Description	Credit Hours
APS 645	Atmospheric Physics	3
APS 649	Atmospheric Radiative Transfer	3
APS 660	Introduction to Atmospheric Structure and Dynamics	3
APS 662	Geophysical Fluid Dynamics	3
APS 746	Atmospheric Chemistry	3
APS 750	Atmospheric Measurements	3
Other Required Courses		
APS 600	Atmospheric and Planetary Sciences Seminar	3
APS 602	APS Comprehensive Exam	1
APS 700	Professional Writing and Presenting	1
APS 702	APS Oral Qualifying Exam	1
APS 797	Dissertation Research	36
APS 798	Final Oral Exam	1
Electives	Selected from atmospheric and planetary sciences and related areas	15
Total		**76**

Degree Plan – Doctor of Philosophy in Planetary Science

Core Courses	Description	Credit Hours
APS 604	Principles of Planetary Science	3
APS 607	Magnetospheres and Plasmas	3
APS 645	Atmospheric Physics	3
APS 649	Atmospheric Radiative Transfer	3
APS 660	Introduction to Atmospheric Structure and Dynamics	3
APS 704	Planetary Chemistry and Dynamics	3
Other Required Courses		
APS 600	Atmospheric and Planetary Sciences Seminar	3
APS 602	APS Comprehensive Exam	1
APS 700	Professional Writing and Presenting	1
APS 702	APS Oral Qualifying Exam	1
APS 797	Dissertation Research	36
APS 798	Final Oral Exam	1
Electives	Selected from atmospheric and planetary sciences and related areas	15
Total		**76**

Biological Sciences

The Master of Science degree, with or without an environmental science concentration, is offered through the graduate program in Biological Sciences. The major objective of these programs is to offer a sequence of technical courses in the Biological Sciences for students who plan to become professional biologists, teachers, or environmental scientists. These programs provide a broad preparation in modern biological specialty areas and an introduction to biological research. Coursework and research opportunities take advantage of the Chesapeake Bay and the surrounding area as a model ecosystem in which to study basic principles of ecology and environmental science. The Thesis Plan requires completion of research in some biological specialty, development and approval of a thesis, and oral defense of that work. The Comprehensive Plan requires successful completion of a Master's Comprehensive Examination covering the five distribution areas given below and with an emphasis on environmental topics for the Environmental Science concentration. The environmental science concentration program is an interdisciplinary program that includes courses in biology, chemistry, and environmental science. The course of study is developed by the department chairperson and the environmental science program coordinator to meet the core course and area distribution requirements. Students electing this concentration must complete either a research thesis or two semesters of an internship in addition to the required core courses in biology and environmental science.

Master of Science – Biology

Requirement	Description	Credit Hours	Plan A	Plan B
Biology 505	Research Problems	3	3	
Biology 650	Research Topics in Biology	3	3	
Statistics 600	Statistics	3	3	
Area Distribution Courses*				
Area "A"	Ecological Biology	3	3	
Area "B"	Cellular, Developmental, and Morphological Biology	3	3	
Area "C"	Evol. and Taxonomic Biology	3	3	
Area "D"	Molecular and Physiological Bio	3	3	
Area "E"	Fundamental Principles and Biological Techniques	3	3	
Electives**		4	9	
Biology 681	Thesis	4	-	
Biology 702	Master's Comprehensive Exam	-	1	
TOTAL CREDITS		**32**	**34**	

**Some distribution requirements may be satisfied by the appropriate undergraduate preparation in biology. The successful degree candidate must still meet the core courses, credit hour and thesis or Master's Comprehensive Examination requirements.*

*** At least 50% of the required credit hours for each plan must be taken at the 600-level.*

Master of Arts – Biology

Requirement	Description	Credit Hours	Plan A	Plan B
Biology 650	Research Topics in Biology	3	3	
Education 601	Foundations of Education	3	3	
Education 602	Human Development in Childhood Adolescence	3	3	
Area Distribution Courses*				
Area "A"	Ecological Biology	3	3	
Area "B"	Cellular, Developmental, and Morphological Biology	3	3	
Area "C"	Evol. and Taxonomic Biology	3	3	
Area "D"	Molecular and Physiological Bio	3	3	
Area "E"	Fundamental Principles and Biological Techniques	3	3	
Electives**		2	9	
Biology 681	Thesis	4	-	
Biology 702	Master's Comprehensive Exam	-	1	
TOTAL CREDITS:		**30**	**34**	

**Some distribution requirements may be satisfied by the appropriate undergraduate preparation in biology. The successful degree candidate must still meet the core courses, credit hour and thesis or Master's Comprehensive Examination requirements.*

*** At least 50% of the required credit hours for the Plan must be taken at the 600-level.*

Master of Science in Biology – Environmental Science Concentration

The Environmental Science concentration is designed to prepare students to pursue professional careers in environmental science. This interdisciplinary program includes courses in the allied areas of biological sciences, chemistry, and marine and environmental science. The program is administered through the Department of Biological Sciences in collaboration with the Department of Marine and Environmental Science. This concentration in Environmental Science may be fulfilled through a (1) Thesis plan or (2) Comprehensive Examination plan. Under the comprehensive examination plan the student is required to also complete one of the following options:

1. An approved internship at a national laboratory/ appropriate agency;
2. A research project at another university; or
3. An in-depth research project here at Hampton University.

All students take a set of core courses, which develops background in the fundamentals of biology, chemistry, marine and environmental science and research skills. A tailored program of study may be developed by selection of specialized elective courses. Students entering the program must have met the following minimum undergraduate requirements: two courses in chemistry, two courses in biological science, and one course in calculus. Students deficient in these areas may be admitted but will be required to take appropriate undergraduate courses.

Master of Science – Biology/Environmental Science

Requirement	Description	Credit Hours	Plan A	Plan B
Biology 550	General Ecology	3	3	
Biology 650	Research Topics in Biology	3	3	
Chemistry 509	Environmental Chemistry	3	3	
Environmental Science 510	Environmental Toxicology	3	3	
Environmental Science 511	Seminar in Environmental Science	1	1	
Environmental Science 513/613	Environmental Science Internship	-	3	
Environmental Science 616/617	Research Problems I/II	3	3	
Statistics 600	Statistics	3	3	
Approved Electives*				
Biology and Environmental Science		7	11	
Biology 681	Thesis	4	-	
Biology 702	Master's Comprehensive Exam	-	1	
TOTAL CREDITS:		**30**	**34**	

Electives (Area Distribution Courses)**		
Biology Electives		2
Biology 509	Invertebrate Zoology	3
Biology 520	Biological Techniques	3
Biology 521	Morphology and Physiology of Fungi	3
Biology 522	Taxonomy of Vascular Plants	3
Biology 538	Entomology	3
Biology 540	Problems in Marine Biology	3
Biology 546	Experimental Plant Physiology	4
Biology 616/516	Marine Microorganisms	4
Biology 617/517	Marine Algae	3
Biology 618/518	Ichthyology	4
Biology 619/519	Marine Ecology	4
Environmental Selected Electives		
Environmental Science 501	Geomorphology	3
Environmental Science 502	Sediments and Stratigraphy	3
Environmental Science 512	Research Problems in Environ. Science	3
Environmental Science 613	Environmental Science Internship	3
Environmental Science 616	Research Problems I	1-3
Environmental Science 617	Research Problems II	1-3

**Other electives in biology, environmental science, chemistry or other appropriate areas may be taken upon approval of the student's advisor. At least 50% of the required credit hours for each plan must be taken at the 600-level.*

Business Administration

Two programs that lead to the Master of Business Administration (MBA) degree and one online program leading to the Doctor of Philosophy (PhD) are offered through the Department of Business Administration in the School of Business and the Graduate College. The first MBA program is a traditional, two-year, graduate program composed of 36 credit hours of required and elective courses in graduate level business courses. The second program is an innovative five-year MBA program created in Fall 2000, which includes an imbedded undergraduate degree in Business Administration that is awarded after the first 120 credit hours and culminates with the MBA degree after satisfactory completion of the remaining 37 credit hours of required and elective graduate courses in business. Since the five-year MBA program is described in complete detail in the Department of Business Administration section of this Catalog, only those portions that pertain directly to the graduate portion are repeated below. Although the professional MBA is a broad, general degree, concentrations may be acquired by taking business and free electives in an area of specialty consistent with a student's professional interests. For example, students desiring a concentration in accounting leading to eligibility to take the Uniform CPA Examination can do so by selecting accounting courses for their free elective and graduate business electives. Professional application and refinement activities are provided to insure business sophistication and the internalization of professional skills, character and critical thinking skills. The doctoral program in Business Administration is part of Hampton University Online and is described in that section of this catalog, as well as, below.

The Five-Year MBA Program

The objective of the Five-Year MBA Program is to prepare students for professional positions in the management of organizations of varying size, technologies and objectives. The Leadership Application Program is designed to ensure the development of non-technical behavior-based competencies, which transcend individual disciplines in the dynamic world of business. The five- year MBA program is a rigorous, time absorbing and demanding academic platform. The curriculum is structured with a built in case and team-based methodology of real world intensity. Students who have completed the undergraduate requirements of this program with an overall 3.00 GPA, or higher, and have satisfactorily completed a graduate application and letter of recommendations, on file are eligible for admission to the graduate portion of this program. If the student's overall GPA is below 3.25. The GMAT will be required for admission to the graduate year and the score must be at least a 400.

A minimum grade of "B" is expected in all Business Administration (MBA) courses taken at Hampton University. Students receiving two "C" grades in the 4th or 5th year in 500 and 600 designated graduate course work are considered on probation. If a student has more than two '' grades below "B", they must retake coursework to be compliant with the Graduate School requirement of overall Hampton University GPA of 3:00 and no more than two grades below B. Students with three "C" grades in graduate school will be suspended for at least one semester if their cumulative grade point

average is above 3.0. Stu- dents will be dropped from the program if their cumulative grade point average falls below 3.0 and they have three "C" grades in 500 and 600 level courses. Development in this demanding and competitive MBA program is both integrative and cumulative.

Master of Business Administration – Five-Year BS/ MBA Program

Requirement	Description	Credit Hours
Leadership Appl.	Program 615	1
Master of Business Admin 511	Graduate Internship (1st summer)	1
Master of Business Admin 600	Logistics and Transportation Management	3
Master of Business Admin 601	Quality & Supply Chain Management	3
Master of Business Admin 610	Business Research Methods	3
Master of Business Admin 608	Advance Topics/ Info Systems or Master of Business Admin 620 Commodity & futures Trading	3
Master of Business Admin 630	Legal Environment of Business	3
Master of Business Admin 681	Organization Theory and Practice	3
Master of Business Admin 690	Strategy & Business Policy	3
Business Electives	Graduate Level Business Electives	6
Graduate Courses	Selected from 2nd semester, 4th year	8
TOTAL CREDITS:		**37**

Traditional/Two-Year Graduate MBA Program

The Two-Year Master of Business Administration program is designed to provide individuals with the expertise needed to become effective, professional, senior-level managers. The curriculum provides a general management emphasis, which encompasses both the basic disciplines that underlie management and the operational areas specific to business. The courses provide an understanding of the components of managerial decision making and provide students with a perspective on the role of business as an economic, political, and social institution. The overall goal of the program is to prepare leaders and scholars who will assume pivotal roles in academic and business organizations.

Specific goals of the programs include:

1. fostering innovative thinking, problem recognition, creative problem solving, sequential thinking and receptivity to new approaches;
2. providing advanced analytical skills in areas such as accounting, finance, economics, marketing, and production management, and developing expertise in applying analytical skills to problem solving and strategy development;
3. encouraging the development of interpersonal skills that are conducive to productive working relationships;
4. building self-confidence and the capacity to make effective use of skills and experience; and
5. encouraging ethical behavior and a tradition of honorable leadership.

The Two-Year Master of Business Administration program is a 36 credit hour program for well prepared students. However, students who do not have prior coursework in business may be required to take up to nine (9) credit hours of prerequisite courses. In all cases, a minimum of 36 credit hours of graduate coursework is required. Applicants to this program must meet all requirements for admission to the Graduate College and submit official GMAT scores. A minimum of 400 on the GMAT needed to be eligible for admission.

Master of Business Administration – Two-Year MBA Program

Requirement	Description	Credit Hours
Master of Business Admin 500	World Business Cultures & Resources	3
Admin 503	Financial Statement Analysis	3
Admin 625	Marketing Management	3
Admin 630	Legal Environment of Business	3
Admin 651	Macro Environment of Business	3
Admin 660	Information Systems Development or MBA 608 Advanced inf. System	3
Admin 675	Managerial Finance or MBA 506 Investment Analysis & portfolio	3
Admin 681	Organization Theory and Practice	3
Admin 690	Strategy & Business Policy	3
Business Electives	Graduate Level Business Electives	9
TOTAL CREDITS:		**36**

Doctor of Philosophy Business Administration Program

The School of Business, Graduate College and Hampton University Online collaborate to offer a hybrid online doctoral program in business which includes a summer residency requirement of two summers at four weeks each. The Hampton University doctoral program in business includes 60 credit hours with a concentration in Business Administration and is offered online. The program culminates with a dissertation facilitated in an online format. The target market for this program is professionals located nationwide who desire an advanced degree in business to excel in their careers. In addition, the program responds to current MBA or technical graduate students aspiring to become consultants or professors and those who aspire to advanced degrees to enhance leadership roles in administrative positions. Online courses will be provided during the academic year. Hence the program is suitable for busy professionals seeking an advanced degree in business to increase their credentials in their current or future industrial role and/or for advancement in academia.

Students enrolled in the doctoral program may select six graduate level courses that will result in at least 18 credit hours of subject matter in a discipline at the graduate level. Dissertation work will commence after successful completion of all coursework with a minimum grade of B, a Comprehensive Examination, and Dissertation Proposal Presentation. Final defense of the dissertation is required. Semester sessions are sixteen weeks in duration with the exception of summer sessions, which are four week terms. All coursework with the exception of summer residency will be facilitated online.

Admission Requirements

Admission to the doctoral program in Business Administration is open to all students seeking an advanced degree. Students are required to possess a master's degree in an approved program.

Otherwise, nine credits of master's degree level business courses will be required in Economics, Accounting and Quantitative Business Analysis.

Prospective Ph.D. students must complete the Hampton University Graduate school application and submit the following required documents; GMAT scores, unless the prospective student has taken the GMAT for the MBA and achieved a score of at least 400. In order for past scores to be submitted, the test must have been taken within five years of the application date. All students must submit three letters of recommendation, show three years of relevant work experience via a resume, and submit a prepared Statement of Career/Professional Plans. Up to six credits of graduate coursework will be accepted for transfer credit.

Curriculum Focus: Marketing & Management or Finance & Accounting

The program requires completion of approximately 60 credit hours

REQUIRED COURSES

BLAO 701R Organizational Behavior 3
BLAO 702R Organization Theory and Practice 3
BLAO 703R Advanced Computer Applications 3
BLAO 704R Advanced Topics in Research 3
BLAO 760R Behavioral Research Methods 3
BLAO 761R Empirical Research Methods 3
BLAO 706R Teaching Methodology 1
*BLAO 707R/Pre-proposal Presentation 2
BLAO 740R Managerial Economics 3
BLAO 800 Dissertation I 4
**BLAO 805 Dissertation II 4
BLAO 810 Dissertation III 4
BLAO 815 Dissertation Defense 0
Total Hours **36**

Electives in the Ph.D. Curriculum

Electives will be selected based on the student's focus: Marketing & Management or Finance & Accounting

BLAO 720 Financial Accounting and Reporting Research 3
BLAO 721 Contemporary Issues in Accounting Seminar 3
BLAO 722 Accounting Theory 3
BLAO 723 Tax Planning and Research 3
BLAO 724 Special Topics in Taxation 3
BLAO 725 Seminar in Accounting Research 3
BLAO 730 Financial Economics 3
BLAO 731 Corporate and Financial Institutions 3
BLAO 732 Behavior Finance 3
BLAO 733 Theory of Finance 3
BLAO 734 Concepts of Investment Decisions 3
BLAO 735 Advanced Topics in Finance 3
BLAO 741 Issues in Operations Management 3
BLAO 742 Seminar in Strategic Policy Management 3
BLAO 743 International Management 3
BLAO 744 Organizational Change Theory 3
BLAO 745 Advanced Decision Support Systems 3
BLAO 750 Marketing Management 3
BLAO 751 Emerging Issues in Marketing 3
BLAO 752 Product Planning Seminar 3
BLAO 753 Behavioral Research in Marketing 3
BLAO 754 Quantitative Research in Marketing: Strategic Models and Methods 3
BLAO 755 Theories of Attitude and Persuasion 3
Total Elective Hours Needed 24

Program matriculation requirements: Summer residencies, On- campus coursework, and Online coursework

First Summer Residency

BLAO 701R Organizational Behavior 3
BLAO 703R Advanced Computer Applications 3
BLAO 704R Advanced Topics in Research 3
BLAO 740R Managerial Economics 3
Total **12**

First Fall Semester (Online)

8 week session

Elective 3

8 week session

Elective 3
Total **6**

First Spring Semester (Online)

8 week session

Elective 3

8 week session

Elective 3
Total **6**

Second Summer Residency

BLAO 702R Organization Theory and Practice 3
BLAO 760R Behavioral Research Methods 3
BLAO 761R Empirical Research Methods 3
*BLAO 707R Pre-Proposal Presentation 2
BLAO 706R Teaching Methodology 1
Total 12

Second Fall Semester (Online)

Article Completion (Register for Pre-proposal)

8 week session

Elective 3

8 week session

Elective 3
Total **6**

Second Spring Semester (Online)

8 week session

Elective 3

8 week session

Elective 3
Total **6**

Summer

Comprehensive Exam

(Complete Application & Register for class according to Ph.D. Coordinator's directions)

Third Fall Semester (Online)

8 week session

BLAO 800 Dissertation I 4
BLAO 805 Dissertation II 4
Total **8**

Third Spring Semester (Online and Formal Presentation)

8 week session

**BLAO 810 Dissertation III 4
BLAO 815 Dissertation Defense 0
Total **4**

Program Total 60 credit hours

Note: Students enrolled in the program may select six graduate level courses that will result in at least 18 hours of subject matter in a discipline at the graduate level.

**Major coursework chosen from BLAO 720 to BLAO 735 for Accounting/ Finance track and from BLAO 741 to BLAO 755 for Marketing/Management track. Courses outside the major coursework list, may be taken for Minor coursework.*

** A maximum of 8 credit hours can be earned in this course by taking it for four semesters*

*** A maximum of 24 credit hours can be earned in this course by taking it for six semesters.*

Graduate Program in Chemistry

The graduate program in chemistry is a thesis-based program of study leading to the degree of Master of Science. To be considered for admission to the program, the student must either hold a bachelor of science/arts degree in chemistry or have a strong background in the subject. Admission criteria include undergraduate grade point average of at least 2.75, superior performance in undergraduate chemistry courses, demonstration of purpose and motivation, and letters of reference. Chemistry graduate students are given appointments as Research Assistants or Teaching Assistants. The program requires a minimum of 39 credit hours and takes about two and one-half years to complete.

Facilities

The Department of Chemistry is housed in Turner Hall, providing eight research laboratories and eight teaching laboratories. Major instrumentation and equipment include NMR and IR Spectrometers, UV-VIS Spectrophotometers, Luminescence systems, AAS and AES spectrometers, LC-MS, Capillary Electrophoresis, CE-MS, Separation systems, including HPLC and GC, Liquid Scintillation Counter, and Computer facilities. The Chemical Instrumentation Laboratory Facility (CILF) is a special facility which was established to support research and teaching. The Facility houses a superconducting NMR, FTIR, AAS, UV-VIS Spectrophotometer, a bench-top LC-MS system, HPLC, and Ion Chromatographic System (IC). A departmentally operated Water Quality Measurement/ Research Laboratory provides drinking water quality measurement services and research and an opportunity for students to learn about water quality and other environmental measurement operations. These sophisticated instruments are available for use by students and faculty from various disciplines in science and engineering with the guidance of a full-time technician.

Computing Facilities

The Integrated Student Learning Center (ISLC) consists of a number of PCs networked for general computing purposes, chemistry tutorials, Internet access, instrument simulations, molecular modeling, and research support. Students can surf the Web for textbook publisher and faculty web pages to enhance learning and prepare for examinations and quizzes. Students can also go to the Harvey Library to use computer facilities located in the Academic Technology Mall. Internet access is available in all classrooms and laboratories in Turner Hall. A Local Area Network (LAN) is used for printing and resource sharing.

Master of Science – Chemistry

Required Courses

Course	Description	Credits
YEAR ONE, Semester 1		
Chemistry 601	Modern Inorganic Chem I	3
Chemistry 605	Advanced Organic Chem I	3
Chemistry 611	Advanced Analytical Chem	3
YEAR ONE, Semester 2		
Chemistry 602	Modern Inorganic Chem	3
Chemistry 606	Advanced Organic Chem II	3
Chemistry 613	Advanced Physical Chem I	3
YEAR TWO, Semester One		
Chemistry 614	Advanced Physical Chemistry II	3
Chemistry 615	Graduate Seminar I	1
Chemistry Electives	(See Chem Electives)	3
Chemistry 650	Thesis Research	3
YEAR TWO, Semester 2		
Chemistry Elective		3
Chemistry 616	Graduate Seminar II	1
Chemistry 650	Thesis Research	3
Chemistry 681	Thesis	4
Electives	Chemistry Electives (See below*)	6
TOTAL CREDITS:		**39**

Electives can be selected from the following courses:

Elective Courses	Course Description	Credit Hours
Chemistry 501-502	Biochemistry I-II	6-8
Chemistry 503	Chemical Thermodynamics	3
Chemistry 505	Molecular Spectroscopy	3
Chemistry 507	Chemical Kinetics	3
Chemistry 509	Environmental Chemistry	3
Chemistry 510	Polymer Chemistry	3
Chemistry 511	Surface Chemistry	3
Chemistry 513	Qualitative Organic Chemistry	3
Chemistry 515	Electronics	3
Chemistry *517	Modern Methods of Chemical Analysis	3

Graduate Program in the Department of Communicative Sciences and Disorders

The graduate program in the Department of Communicative Sciences and Disorders offers the Master of Arts degree and provides students with the academic and clinical experiences that will enable them to earn the Certificate of Clinical Competence (CCC) awarded by the American Speech Language Hearing Associa-

tion (ASHA). Graduate students who enter the program without a bachelor's degree in speech pathology must complete 25 hours of prerequisite course work. Graduate students entering the program with an undergraduate degree in speech-language pathology may also be required to complete additional academic course work. In order to be eligible for ASHA certification, students must earn nine (9) semester hours in the biology, chemistry, physics and statistics, of which there must be one courser in the biological sciences and one course in chemistry or physics and one course in college-level statistics; and six (6) hours in the behavioral and/or social sciences. These 15 semester hours may be earned at the graduate or undergraduate level. The requirements for ASHA certification must be completed concurrently with other academic requirements.

In addition to the academic requirements, graduate students must complete a minimum of 400 clock hours of supervised clinical practicum in the observation, evaluation and treatment of children and adults with disorders of speech, language, hearing and swallowing. A minimum of 325 clock hours must be obtained at the graduate level. No more than 50 certified undergraduate clock hours may be applied to the 400 clock hours required for graduation. Students must complete a minimum of six (6) semester hours of CDS 618-Advanced Clinical Practicum. The practicum requirement will be achieved with a minimum of two semesters of clinical work supervised by program faculty and one semester at an external clinical site.

The Degree Plan for all students is Plan B. The Master's Comprehensive Examination will include a written examination. An oral examination may be offered if a student earns 70% on one portion of the written comprehensive examination, but not the other. As an additional graduation requirement, all students must complete a pilot research project on a topic in the area of speech or language pathology. Students must receive faculty approval of the topic and the research design prior to initiating the research.

Accreditation

The master's program in speech-language pathology in the Department of Communicative Sciences and Disorders is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 220 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301-296-5700. A minimum of 49 credit hours is required for the degree.

Master of Arts – Communicative Sciences and Disorders

Requirement	Description	Credit Hours
Commun. Sciences & Dis. 500	Introduction to Professional and Technical Communication	3
Commun. Sciences & Dis. 501	Research Design in Speech and Hearing Science and Disorders	3
Commun. Sciences & Dis. 507	Stuttering and Other Fluency Disorders and Disorders	3
Commun. Sciences & Dis. 600	Scientific Principles of Acoustic and Physiological Phonetics Commun. Sciences & Dis. 603 Neurolinguistic Disorders in Adults	3
Commun. Sciences & Dis. 606	Voice Disorders	3
Commun. Sciences & Dis. 612	Articulation and Phonological Disorders	3
Commun. Sciences & Dis. 618	Advanced Clinical Practicum	6
Commun. Sciences & Dis. 621	Language Disorders in Children	3
Commun. Sciences & Dis. 622	Family Intervention Strategies in CSAD	3
Commun. Sciences & Dis. 625	Motor Speech Disorders	3
Commun. Sciences & Dis. 628	Diagnosis and Management of Swallowing Disorders in Neurologically Impaired Adult	
Commun. Sciences & Dis. 699	Independent Research I	1
Commun. Sciences & Dis. 700	Independent Research II	2
Commun. Sciences & Dis.	Elective	2
Commun. Sciences & Dis.	Elective	2
Commun. Sciences & Dis.	Elective	2
Commun. Sciences & Dis. 702	Master's Comprehensive Examination	1
TOTAL CREDITS:		**49**

The curriculum plan includes 43 credits of required courses, 6 credits of electives and 28 credits of prerequisite coursework. This plan is for full time students with a background in communicative sciences and disorders. The elective courses in Communicative Sciences and Disorders include CDS 611, 630, 632, 633, 634 and 635. The undergraduate prerequisite courses are CDS 224, 227, 228, 300, 310, 331, 431, 438 and 529.

Students who follow the degree plan as shown and accrue 400 clinical clock hours may complete the program in five semesters. Students who elect to take nine (9) credit hours or less per semester and those who need to fulfill prerequisites will require one or more additional semesters to complete the program.

Master of Science in Computer Science

The master's program in Computer Science is an advanced degree designed to provide students with the knowledge and skills necessary to hold professional positions oriented toward software design. Graduates with this degree would be able to seek employment in research organizations, computer centers, or computer manufacturing. This program also prepares students for further education in computer science. Graduates can pursue the Ph.D. degree if they desire to teach at the college or university level or carry out academic or industrial research.

Bridge Program in Computer Science (Non- Degree Program)

The Bridge Program in Computer Science prepares students for graduate work in the Master of Science program. The main goal of this program is to provide non-computer science students with the necessary background to pursue a master's degree in Computer Science. A secondary goal is to provide formal training for people in various technical disciplines who need significant background in computing. The Bridge program consists of comprehensive courses at the 500-level that provide the equivalent of the core undergraduate computer science curriculum. The following minimum requirements must be met before, as determined by the Department Chair, a student can be admitted to the program:

1. a bachelor's or higher degree;
2. two semesters of calculus and one semester of discrete mathematics; and,
3. formal training or experience in programming to the level of Computer Science 501.

Requirements for the Bridge Program in Computer Science (as determined by the Department Chair)

Requirement	Description	Credit Hours
Computer Science 501	Programming	4
Computer Science 502	Advanced Programming	3
Computer Science 506	Advanced Programming and Data Structures	3
Computer Science 507	Architectures and Operating Systems	3
Computer Science 508	Programming in Languages	3

Master of Science in Computer Science Degree Requirements

The following minimal requirements must be met before an applicant can be accepted as a regular student in the Master of Science in Computer Science program:

1. the Graduate College admission requirements;
2. two semesters of calculus and a semester of discrete mathematics;
3. a computer science background to the level of a B.S. major or completion of the Hampton University Computer Science Bridge Program.

Candidates for the Master of Science degree in Computer Science must complete 36 credit hours, including 18 credits from the core courses, up to 15 credits from electives, and Computer Science 681-Research Seminar. No credits in courses numbered below CSC 510 may be counted toward any graduate degree. Knowledge of Mathematical Foundations (CSC 510) is presupposed in many of the courses described below. Each student will write and defend a thesis or take a final master's comprehensive examination.

Master of Science – Computer Science

Requirement	Description	Credit Hours	Plan A	Plan B
Computer Science 510	Mathematical Foundations	3	3	
Computer Science 620	Operating Systems	3	3	
Computer Science 630	Artificial Intelligence	3	3	
Computer Science 640	Software Engineering Foundations	3	3	
Computer Science 650	Theory of Computation	3	3	
Computer Science 660	Programming Languages	3	3	
Computer Science 681	Research Seminar I	3	3	
Computer Science 689/684	Thesis/Thesis Research	4	-	
Computer Science 702		-	4	
Master's Comprehensive Examination		-	1	
Electives	Computer Science Electives (See list.)	11	15	
TOTAL CREDITS:		**36**	**37**	

Electives

Computer Science 570	Database Management Systems 3
Computer Science 571	Concepts of Communication Networks 3
Computer Science 612	Numerical Computation 3
Computer Science 621	Network Systems and Design 3
Computer Science 622	Parallel Processing 3
Computer Science 623	Architecture 3
Computer Science 629	Topics in Operating Systems 3
Computer Science 631	Expert Systems 3
Computer Science 632	Natural Language Processing 3
Computer Science 639	Topics in Artificial Intelligence 3
Computer Science 649	Topics in Software Engineering 3
Computer Science 651	Algorithms and Complexity 3
Computer Science 659	Topics in Theory of Computation 3
Computer Science 669	Topics in Programming Languages 3
Computer Science 682	Teaching Seminar I 3
Computer Science 683	Research Seminar II 3

Master of Science in Cyber Security

The Master of Science in Cyber Security focuses on providing a broad interdisciplinary information assurance and cyber security education that prepares graduates to successfully defend, protect, design, implement and maintain secure information and information systems. Graduates of the M.S. degree program in Information Assurance have the requisite expertise to:

- Work in teams, to apply theoretical and analytical methods and principles of software development to address security issues in software development.
- Apply techniques, methodologies, tools and skills to build high-quality security systems that function effectively and reliably in the emerging information infrastructure.
- Communicate effectively, both orally and in writing, with other security and computing professionals.
- Function in the world-at-large as productive and ethical professionals and as responsible citizens. They will have a very good understanding of ethical issues and their applications.
- Understand and employ current trends and adapt to advances in the technology of the
- Information Assurance and Cyber Security profession.
- Develop and implement security strategies to improve the security posture of organizations.

The MS in Cyber Security program is designed for prospects with an undergraduate degree in Computer Science or a degree in engineering, science or mathematics with a strong background in computer science. For prospects without the appropriate qualifications, a set of bridge courses provide the necessary background for regular admission to the MS program.

Bridge Program in Cyber Security (Non- Degree Program) The Bridge Program in Cyber Security prepares students for graduate work in the Master of Science program. The main goal of this program is to provide non-computer science students with the necessary background to pursue a master's degree in Cyber Security. A secondary goal is to provide formal training for people in various technical disciplines who need significant background in computing. The Bridge program consists of comprehensive courses at the 500-level that provide the equivalent of the core undergraduate computer science curriculum. The following minimum requirements must be met before, as determined by the Department Chair, a student can be admitted to the program:

1. a bachelor's or higher degree;
2. two semesters of calculus and one semester of discrete mathematics; and,
3. formal training or experience in programming to the level of Computer Science 501.

Requirements for the Bridge Program in Information Assurance (as determined by the Department Chair)

Requirement/Description	Credit Hours
Computer Science 501 Programming	4
Computer Science 502 Advanced Programming	3
Computer Science 506 Advanced Programming and Data Structures	3
Computer Science 507 Architectures and Operating Systems	3
Computer Science 508 Programming in Languages	3

Requirements for the Program in Cyber Security
CORE COURSES (25 Cr. Hr.)

Requirement/Description	Credit Hours
Computer Science 510 Mathematical Foundations	3
Cyber Security 523 Ethics, Law and Policy in Cyberspace	3
Cyber Security 582 Introduction to Cyber Security	3
Cyber Security 583 Secure Software Engineering	3
Cyber Security 610 Cryptography	3
Cyber Security 670 Computer Forensics and Incident Handling	3
Cyber Security 675 Computer Virus and Malicious Software	3
Cyber Security 683 Advanced Computer and Network Security	3
Comprehensive Examination	1

ELECTIVE COURSES (12 Cr. Hrs.)

Requirement/Description	Credit Hours
Cyber Security 684 Systems Security, Administration, Management and Certification	3
Cyber Security 685 Risk Management	3
Cyber Security 686 Systems Security for Senior Management	3
Cyber Security 690 Network Security and Intrusion Detection	3
Cyber Security 691 Wireless Networks	3
Cyber Security 692 Secure Distributed Computing	3
Cyber Security 695 Special Topics	3

Counseling

The Master of Arts degree program is offered with a concentration in College Student Development/Student Affairs, Community Mental Health, and School Counseling. A Pastoral Counseling track is provided through the Community Mental Health Counseling program. These four programs are accredited by the Council of Accredited Counseling and Related Education Programs (CACREP). A concentration is offered in Addictions Counseling to meet Virginia requirements for a Licensed Substance Abuse Treatment Provider. A Master of Arts Degree is offered in General Counseling that does not lead to licensing as a professional counselor in Virginia but provides an overview of the counseling profession and could lead to positions in Student Affairs or as a Qualified Mental Health Provider in Virginia. The General Counseling degree is offered in online and face-to-face modalities. The Education Specialist (Ed.S.) degree is provided for well qualified students in both online and face-to-face modalities. The Doctor of Philosophy degree program in Counselor Education and Supervision is also offered.

Mission Statement for the Department of Counseling

To create an environment conducive to spirituality, self-examination, collaboration, and reflection for the development and growth of professional counselors who are leaders and advocates within communities and various school settings. These counselors will optimize individual development and mental, physical, emotional, and spiritual health within these communities and various school settings through their leadership, advocacy, and spirituality.

Admission to the Department of Counseling Potential students will submit all required documents to the Hampton University Graduate College for traditional face-to-face programs and to Hampton U Online for the online programs. During the admission process, the potential student will be viewed holistically with an emphasis on the potential student's personal statement. The potential student's personal statement should provide insight on the individual's reasons for being a counselor and experiences that led the potential student to this career choice. At least one letter of recommendation must come from an academic source. Some students may be admitted without an undergraduate background in psychology.

Master of Arts Degree – Common Core Courses

In order to obtain licensure as a counselor in the Commonwealth of Virginia, a candidate must complete a minimum of 60 hours of graduate study. To receive certification as a Nationally Certified Counselor (NCC) with the National Board of Certified Counselors (NBCC), a candidate must complete a minimum of 48 hours of graduate study. Students in the Department of Counseling are eligible to take the National Certifying Exam (NCE) of the National Certifying Mental Health Counseling Exam and, if successful, become NCCs or Certified Mental Health Counselors, respectively. Hampton University requires the following common core courses for completion of the Master of Arts Degree in Counseling. Additional courses are required for specific concentrations for licensure or certification along with additional requirements. For more specific information on licensure or national certification, see www.dhp.state.va.us or www.counseling.org/cacrep/2001standards and www.nbcc.org, respectively.

Master of Arts in Counseling Core Courses

Requirement	Description	Credit Hours
Counseling 603	Counseling with Diverse Populations	3
Counseling 604	Lifespan Development	3
Counseling 606	Treating the Substance Abuser	3
Counseling 612	Career Development	3
Counseling 616	Theory and Practice of Counseling and Psychotherapy	3
Counseling 619	Group Process in Counseling	3
Counseling 622	Assessment and Appraisal in Counseling	3
Counseling 671	Introduction to Research and Program Evaluation	3
Counseling 702	Master's Comprehensive Examination	1
TOTAL		**19**

**Denotes that a Key Assessment is administered in this course.*

***Denotes that more than one Key Assessment is administered in this course*

Common Master of Arts Degree Requirements The academic and professional progress of all students who are admitted into the program will be reviewed pending successful completion of the following courses:

- Counseling 616, Theory and Practice of Counseling and Psychotherapy
- Counseling 619, Group Process in Counseling
- Counseling 622, Assessment and Appraisal

After successfully completing the above 9 credits, students will be evaluated for a change of status to a candidate for graduation. Following admission to candidacy status, students will develop a course of study with their academic advisor focusing on a specific concentration. Students who are not admitted to candidacy status will be aided in transitioning to another program. A committee of at least three faculty members will determine admission to candidacy status and this committee will consider:

- Input from regular, adjunct, and affiliate program faculty;
- Each applicant's potential success in forming effective interpersonal relationships in individual and small group contexts;
- Each applicant's aptitude for graduate level study;
- Each applicant's career goals and objectives and their relevance to the program; and,
- Each applicant's openness to self-examination and personal and professional self-development.

Additional assessments are conducted after specific courses and during each advisement period. The Professional Performance Review contains ten Professional Performance Standards that will be regularly monitored by faculty. The students' fulfillment of the Professional Performance Standards is reviewed by individual faculty during each class and at the conclusion of each semester by the combined Counseling faculty. Each Professional Performance Standard is rated on a scale of 1 = Unacceptable, or 2 = Acceptable, as defined in the criteria for Professional Performance Standards Evaluation. Students receiving a rating below 2 on one or more of the Professional Performance Standards will be considered deficient in professional performance and will require remediation.

Student assessment also occurs during each advisement period with the faculty advisor. The Professional Performance Review will be maintained in the student's file to identify development over time. The student will be assessed holistically using the Assessment of Student Learning Outcomes Form, the Professional Performance Review Form and the Advisement Form along with other information contained in the student's file.

Fees for Audiovisual Taping and Comprehensive Examination

There are two fees associated with matriculation in the Graduate Program in Counseling program. The first fee is approximately $50 per semester to offset the cost of audiovisual taping. This audiovisual tape is used by the instructor and student to evaluate their personal counseling techniques and body language. The second fee is approximately $50 for the Counselor Preparation Comprehensive Examination. The Counselor Preparation Comprehensive Examination is used by the NBCC as a preparatory examination for the National Counselor Examination used for National Certified Counselor's credentials. This Counselor Preparation Comprehensive Examination is also used as the Masters' Comprehensive Examination. Failure to remit these fees will constitute grounds for not successfully completing specific course (COU 702) and the overall program.

Liability Insurance:

All students are required to obtain and show proof of liability insurance to cover the periods enrolled in practicum and internship courses. The American Counseling Association provides online applications. However, students are encouraged to purchase liability insurance with any company of their choice.

Personal Counseling Services

All students are encouraged to use personal counseling services to optimize their openness to self-examination and personal and professional development. The Hampton University Student Counseling Center is available for this function; however, the student is not limited to these counseling services.

Master of Arts Degree in Counseling: General Counseling (online and face-to-face)

First Year	**Semester 1st**	**Fall**
COU 622, Assessment & Appraisal in Counseling		3
COU 604, Life Span Development		3
COU 616, Theory and Practice of Counseling and Psychotherapy		3
Spring		
COU 619, Group Process in Counseling		3
COU 612, Career Development		3
COU 606, Treating the Substance Abuser		3
Summer I	**Semester 1st**	
COU 610, Identity, Ethics & Legal Aspects of Counseling		3
COU 614, Community Mental Health and Welfare Services		3
Total		**24**
Second Year	**Semester 2nd**	**Fall**
COU 671, Introduction to Research & Program Evaluation		3
COU 603, Counseling with Diverse Populations		3
COU 702, Comprehensive Examination		1
Total		**7**
TOTAL SEMESTER HOURS		**31**

Master of Arts Degree in Counseling: Addiction Counseling Concentration

Program is aligned with Virginia requirements of licensing as a Licensed Substance Abuse Treatment Provide (LSATP).

First Year	**Semester 1st**	**Fall**
COU 622, Assessment & Appraisal in Counseling		3
COU 604, Life Span Development		3
COU 616, Theory and Practice of Counseling and Psychotherapy		3
Spring		
COU 619, Group Process in Counseling		3
COU 612, Career Development		3
COU 606, Treating the Substance Abuser		3

Summer I

COU 610, Identity, Ethics and Legal Aspects of Counseling.....3
COU 672, Addiction Counseling 3
Total **24**

Second Year **Semester 2nd** **Fall**

COU 671, Introduction to Research and Program Evaluation 3
COU 603, Counseling with Diverse Populations 3
COU 722, Advanced Counseling Theory and Techniques 3

Spring

COU 674, Addiction Counseling Practicum 3
STA 600, Statistics 3
COU 613, Diagnosis and Treatment to Include Addictions.....3

Summer II

COU 675, Addictions Counseling Internship 3
COU 620, Marriage and Family Counseling 3
COU 673, Addictions.....3
Total **27**

Third Year **Semester 3rd** **Fall**

COU 698, Community Mental Health Internship 3
COU 626, Crisis Intervention and Grief Counseling 3
COU 602, Abnormal Psychology and Psychopathology 3

Spring

COU 664, Community Mental Health Internship 3
COU 702, Comprehensive Examination.....1
Total **13**

TOTAL SEMESTER HOURS **64**

Master of Arts Degree in Counseling: School Counseling Concentration

For the award of the Masters of Arts Degree and to meet NBCC certification requirements, the following courses along with the Common Core courses must be completed. School counselors must complete additional requirements prior to applying for licensure in the Commonwealth of Virginia and meet Virginia requirements for licensing as a professional counselor.

First Year **Semester 1st** **Fall**

COU622, Assessment & Appraisal in Counseling 3
COU 604, Life Span Development.....3
COU 616, Theory and Practice of Counseling and Psychotherapy.....3

Spring

COU 619, Group Process in Counseling 3
COU 612, Career Development 3
COU 606, Treating the Substance Abuser.....3

Summer I **Semester 1st**

COU 631, Foundation of School Counseling, Ethics, and Techniques 3
COU 633, Contextual Dimensions of School.....3
Total **24**

Second Year **Semester** **2nd**

Fall

COU 671, Introduction to Research and Program Evaluation 3
COU 603, Counseling with Diverse Populations.....3
COU 618, Practicum.....3

Spring

STA 600, Statistics 3
COU 613, Diagnosis and Treatment to include Addictions.....3
COU 639, School Counseling Internship 3

Summer II **Semester** **2nd**

COU 620, Marriage and Family Counseling 3
COU 635, School Counseling Classroom Management, Curriculum Design and Instructional Technology.....3
Total **24**

Third Year **Semester** **3rd**

Fall

COU 698, School Counseling Internship 3
COU 626, Crisis Intervention & Grief Counseling 3 COU 602, Abnormal Psychology & Psychopathology 3

Spring

COU 640, School Counseling.....3
COU 722, Advanced Counseling Theory and Techniques 3
COU 702, Comprehensive Examination.....1
Total **16**

TOTAL SEMESTER HOURS **64**

Master of Arts Degree in Counseling, Student Affairs: College Student Development Concentration

For the award of the Masters of Arts Degree and to meet NBCC certification requirements, the following credits along with the common core courses must be completed.

First Year **Semester** **1st**

Fall

COU 622, Assessment and Appraisal in Counseling 3
COU 604, Life Span Development.....3
COU 616, Theory and Practice of Counseling and Psychotherapy.....3

Spring

COU 619, Group Process in Counseling 3
COU 612, Career Development 3
COU 606, Treating the Substance Abuser.....3

Summer I **Semester** **1st**

COU 610, Identity, Ethics and Legal Aspects of Counseling.....3
COU 620, Marriage and Family Counseling 3
Total **24**

Second Year **Semester** **2nd**

Fall

COU 671, Introduction to Research & Program Evaluation 3
COU 603, Counseling with Diverse Populations 3
COU 722, Advanced Counseling Theory and Techniques 3

Spring

COU 618, Practicum 3
STA 600, Statistics 3
COU 613, Diagnosis and Treatment to include Addiction 3
Total **9**

Summer II	Semester	3rd
COU 649, College Student Development Internship		3
COU 641, College Student Development, Ethics, and Techniques		3
COU 642, Student Affairs Program		3
Total		**9**

Third Year	Semester	1st	2nd
COU 698, College Student Development Internship		3	-
COU 626, Crisis Intervention and Grief Counseling		3	-
COU 664, Community Mental Health Internship		-	3
COU 602 Abnormal Psychology and Psychopathology		3	-
COU 702, Comprehensive Examination		-	1
Total		**9**	**4**
TOTAL SEMESTER HOURS			**64**

Master of Arts Degree in Counseling: Community Mental Health Counseling Concentration

For the award of the Masters of Arts Degree and to meet NBCC certification requirements, the following credits along with the common core courses must be completed.

First Year	Semester	1st	2nd
COU 622, Assessment and Appraisal in Counseling		3	-
COU 604, Life Span Development		3	-
COU 616, Theory and Practice		3	-
COU 619, Group Process in Counseling		-	3
COU 618, Practicum		-	3
COU 606, Treating the Substance Abuser		-	3
Total		**9**	**9**

Summer I	Semester	3rd
COU 610, Identity, Ethics and Legal Aspects of Counseling		3
COU 626, Crisis Intervention and Grief Counseling		3
Total		**6**

Second Year	Semester	1st	2nd
COU 671, Introduction to Research and Program Evaluation		3	-
COU 603, Counseling with Diverse Populations		3	-
COU 614, Community Mental Health and Welfare Services		3	-
STA 600, Statistics		-	3
COU 613, Diagnosis and Treatment		-	3
COU 659, Community Mental Health Internship		-	3
Summer II			
COU 620, Marriage and Family Counseling			3
Total			**3**

Third Year	Semester	1st	2nd
COU 698, Community Mental Health Internship		3	-
COU 664, Community Mental Health Internship		-	3
COU 612, Career Development		3	-
COU 602, Abnormal Psychology and Psychopathology		3	-
COU 722, Advance Counseling Theory and Techniques		-	3
COU 624, Theories of Learning, Personality, and Temperament			3
COU 702, Comprehensive Examination		-	0
Total		**9**	**9**
TOTAL SEMESTER HOURS			**64**

Master of Arts in Counseling: Community Counseling Concentration (Pastoral Counseling)

For the award of the Masters of Arts Degree and to meet NBCC certification requirements, the following credits along with the common core courses must be completed.

First Year	Semester	1st	2nd
COU 622, Assessment and Appraisal in Counseling		3	-
COU 604, Life Span Development		3	-
COU 616, Theory and Practice of Counseling and Psychotherapy		3	-
COU 619, Group Process in Counseling		-	3
COU 612, Career Development		-	3
COU 606, Treating the Substance Abuser		-	3
Total		**9**	**9**

Summer I	Semester	3rd
COU 610, Identity, Ethics and Legal Aspects of Counseling		3
COU 611, Pastoral Helping		3
COU 661, Integrative Issues in Spiritual Counseling		3
Total		**9**

Second Year	Semester	1st	2nd
COU 671, Introduction to Research and Program Evaluation		3	-
COU 603, Counseling with Diverse Populations		3	-
COU 722, Advanced Counseling Theory and Techniques		3	-
COU 618, Practicum		-	3
STA 600, Statistics		-	3
COU 613, Diagnosis and Treatment- to include Addictions		-	3
Total		**9**	**9**

Summer II	Semester	3rd
COU 669, Pastoral Community Mental Health Internship		3
COU 620, Marriage and Family Counseling		3
COU 614, Community Mental Health and Welfare Services		3
Total		**9**

Third Year	Semester	1st	2nd
COU 698, Pastoral Community Mental Health Internship		3	-
COU 664, Community Mental Health Internship		-	3
COU 626, Crisis Intervention and Grief Counseling		3	-
COU 602, Abnormal Psychology and Psychopathology		3	-
COU 702, Comprehensive Examination		-	1
COU 624, Theories of Learning, Personality, and Temperament*		-	3
Total		**9**	**7**
TOTAL SEMESTER HOURS			**70**

** denotes existing courses*

Education Specialist Degree in Counseling (online and face-to-face)

This course of study is designed to further develop professional skills and broaden knowledge of counseling. Entry into the program will be limited to candidates who have successfully completed a Master of Arts Degree in Counseling. This program will consist of a minimum of 30 credit hours beyond the Masters of Arts program of graduate study, providing that prerequisites have been met. Some

identified courses or similar courses may have been completed while pursuing the Masters of Arts Degree. If this situation exists, the advisor and the student will determine substitute courses to meet the 30 credit hour requirement. This degree is considered a terminal degree for the practitioner.

After successfully completing 9 credits, students will be evaluated for a change of status from provisional to regular and entry into candidacy. This change of status evaluation will be conducted using the students' academic progress and the personal and professional counselor competencies for the Department of Counseling. Following admission to regular status, students will develop a course of study with their academic advisor focusing on a specific concentration. Students who are not admitted to regular status will be aided in transitioning to another program. A committee of at least two faculty members will determine admission to regular status and this committee will consider:

- Input from regular, adjunct, and affiliate program faculty;
- Each applicant's potential success in forming effective interpersonal relationships in individual and small group contexts;
- Each applicant's aptitude for graduate level study, including technological competence and computer literacy;
- Each applicant's career goals and objectives and their relevance to the program; and,
- Each applicant's openness to self-examination and personal and professional self-development.

Personal Counseling Services

All students are encouraged to use personal counseling services to optimize their openness to self-examination and personal and professional development. The Hampton University Student Counseling Center is available for this function; however, the student is not limited to these counseling services.

Ed. S. in Counseling

In order to attain licensure in the Commonwealth of Virginia, the candidate must complete 60 hours of graduate study including the following courses beyond the Master's program. The student and advisor will develop a program to meet the Virginia licensure requirements for the student's specific area of study ensuring that only new or advanced courses are selected. For more information on pastoral counseling licensure and certification, see www.aapc.org. For more information on marriage and family therapy, see www.iamfc.org.

First Year	**Semester**	**1st**	**2nd**
COU 602, Abnormal Behavior and Psychopathology		3	-
COU 621, Advanced Group and Family Counseling		-	3
COU 816, Qualitative Methods of Research		3	-
COU 805, Human Sexuality		-	3
COU 630, Analysis of Behavioral Data		3	-
COU 824, Theories and Practice of Counseling Supervision		-	3
Total		**9**	**9**

Summer I	**Semester**	**3rd**
COU 801, Counseling Leadership and Advocacy		3
COU 710, Ethics and Legal Aspects of Counseling.		3
Total		**6**

Second Year	**Semester**	**1st**	**2nd**
COU 826, Research and Program Evaluation		3	-
COU 725, Grant Writing		3	-
Total		**6**	**-**
TOTAL SEMESTER HOURS			**30**

**denotes courses recommended to replace.*

Doctor of Philosophy in Counseling Education and Supervision

The program provides candidates with an opportunity to develop the critical leadership skills and knowledge that are required in today's increasingly complex, diverse, and information-driven social and educational organizations. This program in Counselor Education and Supervision was developed to provide an attractive and viable alternative to "traditional" doctoral programs in counseling. Completion of the program will result in the awarding of a PhD. degree requiring approximately 61 credits beyond the master's, including a significant focus on research. Many courses are currently being taught within the Specialist in Education Counseling program. All research and statistics courses will be taught in conjunction with the School of Nursing PhD program. Most coursework is offered in thematic seminars in which emphasis is placed on identifying and developing solutions to real-life problems.

After successfully completing the Doctoral Candidate Qualifying Examination, students will be evaluated for a change of status from provisional to regular and entry into candidacy. This change of status evaluation will be conducted using the students' academic progress and the personal and professional counselor competencies for the Department of Counseling. Students who are not admitted to candidacy will be aided in transitioning to another program. A committee of at least two faculty members will determine admission to candidacy and this committee will consider:

- Input from regular, adjunct, and affiliate program faculty;
- Each applicant's potential success in forming effective interpersonal relationships in individual and small group contexts;
- Each applicant's aptitude for graduate level study, including technological competence and computer literacy;
- Each applicant's career goals and objectives and their relevance to the program; and,
- Each applicant's openness to self-examination and personal and professional self-development.

Personal Counseling Services

All students are encouraged to use personal counseling services to optimize their openness to self-examination and personal and professional development. The Hampton University Student Counseling Center is available for this function; however, the student is not limited to these counseling services.

Liability Insurance:

All students are required to obtain and show proof of liability insurance to cover the periods enrolled in practicum and internship courses. The American Counseling Association provides online applications. However, students are encouraged to purchase liability insurance with any company of their choice.

Admission to the PhD in Counseling Education and Supervision

Admission to the program will require the ideal applicant to have a minimum of 300 combined score on the Verbal and Quantitative portions of the GRE within the last five years. A writing sample is required along with the required personal statement. The writing sample includes a published refereed journal article or a paper written during the applicant's M.A. program. Additionally, the ideal applicant must have completed a Master of Arts in Counseling degree from a CACREP accredited program or a similar course of study to include a graduate level course in abnormal psychology and ethics. Previous graduates of the Hampton University Education Specialist (EdS) Counseling program will be considered for admission to the program with current GRE scores and consideration of accepting all courses taken for application to this degree program with the minimum of at least an additional 27 semester hours for the award of the PhD. Successful candidates will possess licensure and credentials within the Counseling career field. Applications must be received by January 15 each year for a Fall admission. The dissertation courses (COUOs 832, 833, and 834) can be taken in separate semesters; however, the student must complete 12 semester hours in dissertation.

First Year	**Semester**	**1st**
Summer I		
COUO 823,Theory and practice of Counseling Education		3
COUO 826 Research and Program Evaluation		3
Fall		
COUO 801 Counseling Leadership and Advocacy		3
COUO 816, Qualitative Methods of Research		3
COUO 828, Counseling Practicum		3
Spring		
COUO 814 Quantitative Methods I		3
COUO 805 Human Sexuality		3
COUO 829 CES Internship I (Teaching)		3
Total		**24**
Second Year	**Semester**	**2nd**
Summer II		
COUO 821, Advanced Group and Family Systems Theory		3
COUO 810 Ethics & Legal Aspects of Counseling		3
Fall		
COUO 815, Quantitative Methods II		3
COUO 811 Literature Review Writing		3
COUO 830 CES Internship II (supervision)		3
Spring		
COUO 825, Grant Writing		3
COUO 824, Theories & Practice of Counseling Supervision		3
COUO 831, Dissertation Seminar		3
COUO 802, Comprehensive Examination		0
Total		**24**
Third Year	**Semester**	**3rd**
Summer III		
COUO 832, Dissertation I		4
Fall		
COUO 833, Dissertation II		4
Spring		
COUO 834, Dissertation IV		4
COUO 836, Dissertation Defense.		0
Total		**12**
TOTAL SEMESTER HOURS		**60**

Graduate Programs in Education

Graduate programs in Education are offered on campus and through Hampton University Online.

Programs offered on the main campus include the Master in Teaching degree in biology, Chemistry, English, mathematics, and music. These programs meet Virginia State Certification requirements for teacher licensure and are state-approved programs. Only a summary of the graduate portion of the Master in Teaching degree programs is provided below since detailed admission, progression and retention information for this five-year, baccalaureate to graduate degree program is provided in the Department of Education portion in the School of Liberal Arts and Education, Department of Education section of this Catalog. Individuals who hold the baccalaureate degree and wish to enter the two-year Master in Teaching programs are limited to Hampton University graduates of the Undergraduate programs [Chemistry, Biology, English, Mathematics and Music-Vocal and Instrumental].

The Master of Arts in Educational Leadership program meets Virginia State Certification requirements for Administration and Supervision PK-12 licensure and is a state-approved program.

The Department of Education collaborates with Hampton University Online to offer online degree programs leading to the Master of Arts in Educational Leadership and to the Doctor of Philosophy in Educational Management. More detailed information about the online degree programs are provided in the Hampton University Online section of this Catalog.

The honor society in education, Kappa Delta Pi, is open to all qualified graduate students in the education programs.

Masters In Teaching

The Master in Teaching degree program is designed primarily to serve as an integrated Bachelor/Master's program to achieve initial licensure at the Secondary Level in Biology, Chemistry, English or mathematics and at the PK-12 levels in music. Teacher candidates who complete the dual degree accredited teacher preparation program receive Virginia teacher certification and are eligible for reciprocal certification in over 40 states. Undergraduate students enter the program during their sophomore or junior year and complete graduate level education courses and experiences while working towards the bachelor's degree in the content area. During the senior year, students apply for admission to the Graduate College for admission to the Professional stage of the program. Admission requirements to the Professional stage include the following:

- Achievement of the Bachelor's Degree.
- A minimum 2.5 cumulative grade point average; a 2.5 grade point average in the major a 2.5 cumulative grade point average in education coursework.
- Successful completion of the general test of the Graduate Record Examination with a minimum verbal score of 450. 150
- Successful completion of the Praxis Core and the Praxis II examination in the specialty area and other required state tests.

Master in Teaching Course Sequence – Secondary Biology

Course/Description		Credit Hours	
First Year	**Semester**	**I**	**II**
Education 506* Diversity in Education		-	3
Education 517* Classroom and Behavior Management		3	-
EDU 531 Assessment, Evaluation & Instructional Technologies for Diverse Learners		-	3
Education 552* Teaching Science in Secondary Schools		3	-
Second Year	**Semester**	**I**	**II**
Education 608 Directed Practicum in Education		3	-
Education 610 Current Issues in Education		3	-
Education 623 Reading in the Content Areas		3	-
Education 647 Student Teaching Internship (Secondary		-	9
TOTAL		**15**	**15**
Total Credits			**30**

**Note that EDU 506, 517, 552, 531 are counted toward graduate degree requirements and are not part of the 124 credit hours that count toward the Bachelor of Science degree in Biology. When taken by Hampton University undergraduates in the Pre-professional stage of the M.T. program, these courses serve as advanced placement and are used in the calculation of graduate credit hours.*

Master in Teaching Course Sequence – Secondary Chemistry

Course/Description		Credit Hours	
First Year	**Semester**	**I**	**II**
Education 506* Diversity in Education		-	3
Education 517* Classroom and Behavior Management		3	-
EDU 531 Assessment, Evaluation & Instructional Technologies for Diverse Learners		-	3
Education 552* Teaching Science in Secondary Schools		3	-
Second Year	**Semester**	**I**	**II**
Education 608 Directed Practicum in Education		3	-
Education 610 Current Issues in Education		3	-
Education 623 Reading in the Content Areas		3	-
Education 647 Student Teaching Internship (Secondary		-	9
TOTAL		**15**	**15**
Total Credits			**30**

**Note that EDU 506, 517, 552, 531 are counted toward graduate degree requirements and are not part of the 124 credit hours that count toward the Bachelor of Science degree in Chemistry. When taken by Hampton University undergraduates in the Pre-professional stage of the M.T. program, these courses serve as advanced placement and are used in the calculation of graduate credit hours.*

Master in Teaching Course Sequence – Secondary English

Course/Description		Credit Hours	
First Year	**Semester**	**I**	**II**
Education 506* Diversity in Education		-	3
Education 517* Classroom and Behavior Management		3	-
EDU 431/531 Assessment, Evaluation & Instructional Technologies for Diverse Learners		-	3
Education 556* Teaching English in Secondary Schools		3	-
Second Year	**Semester**	**I**	**II**
Education 608 Directed Practicum in Education		3	-
Education 610 Current Issues in Education		3	-
Education 623 Reading in the Content Areas		3	-
Education 647 Student Teaching Internship (Secondary)		-	9
TOTAL		**15**	**15**
Total Credits			**30**

**Note that EDU 506, 517, 531, 556 are counted toward graduate degree requirements and are not part of the 121 credit hours that count toward the Bachelor of Arts degree in English Arts. When taken by Hampton University undergraduates in the Pre-professional stage of the M.T. program, these courses serve as advanced placement and are used in the calculation of graduate credit hours.*

Master in Teaching Course Sequence – Secondary Mathematics

Course/Description		Credit Hours	
First Year	**Semester**	**I**	**II**
Education 506* Diversity in Education		-	3
Education 508* Teaching Mathematics in Secondary Schools		3	-
Education 517* Classroom and Behavior Management		3	-
EDU 431/531 Assessment, Evaluation & Instructional Technologies for Diverse Learners		-	3
Second Year	**Semester**	**I**	**II**
Education 608 Directed Practicum in Education		3	-
Education 610 Current Issues in Education		3	-
Education 623 Reading in the Content Areas		3	-
Education 647 Student Teaching Internship (Secondary)		-	9
TOTAL		**15**	**15**
Total Credits			**30**

**Note that EDU 506, 508, 517, 531 are counted toward graduate degree requirements and are not part of the 124 credit hours that count toward the Bachelor of Science degree in Mathematics. When taken by Hampton University undergraduates in the Pre-professional stage of the M.T. program, these courses serve as advanced placement and are used in the calculation of graduate credit hours.*

Master in Teaching Course Sequence – Music PK-12

Course/Description		Credit Hours	
First Year	**Semester**	**I**	**II**
Education 506* Diversity in Education		-	3
Education 517* Classroom and Behavior Management		3	-
EDU 531 Assessment, Evaluation & Instructional Technologies for Diverse Learners		-	3
Music Ed 530* Teaching Music in Elementary Schools		3	-
Music Ed 535* Teaching Music in Secondary Schools		3	-
Second Year	**Semester**	**I**	**II**
Education 608 Directed Practicum in Education		3	-
Education 610 Current Issues in Education		3	-
Education 623 Reading in the Content Areas		3	-
Education 648 Student Teaching Internship		-	-
Music PK-12		-	9
TOTAL		**18**	**15**
Total Credits			**33**

**Note that EDU 506, 517, 531 and MUE 530, 535 are counted toward graduate degree requirements and are not part of the 129 credit hours that count toward the Bachelor of Arts degree in Music. When taken by Hampton University undergraduates in the Pre-professional stage of the M.T. program, these courses serve as advanced placement and are used in the calculation of graduate credit hours.*

Master of Arts in Educational Leadership (Traditional and Online)

The Educational Leadership program is targeted to meet the needs of individuals attempting to obtain leadership training at the Pk-12 or Higher Education levels. The PK-12 program leads to PreK-12 Administration and Supervision endorsement in Virginia. It is an advanced program for individuals who already possess initial teacher licensure. The Higher Education program is geared toward leadership in postsecondary contexts. Licensure is not required for admission to this program. This program is available through Hampton U Online.

- Admissions requirements include the following:
- Application for Admission to the Graduate College
- Payment of Application Fee
- Two letters of recommendation
- Official GRE Scores
- Copy of teaching license
- Letter from a supervisor/personnel officer that attests to completion of three years of full-time teaching

Master of Arts in Educational Leadership (PreK-12 Administration and Supervision Endorsement)

Courses/Title	Semester Hours
EDUV 680 Survey of Computers and Data Analyses	3
EDUV 681 PK – 12 School Finance	3
EDUV 682 Educational Program Evaluation and Planning	3
EDUV 683 School Organizational Systems and Theory	3
EDUV 684 Secondary School Leadership (Grades 7-12)	3
EDUV 685 Legal Aspects of School Administration	3
EDUV 686 Elementary School Leadership (Grades PK-6)	3
EDUV 687 Human Resource Leadership in Schools and Districts	3
EDUV 688 Curriculum Planning and Design	3
EDUV 689 School and Community Relations and Diversity	3
EDUV 690 Supervision of Instruction	3
EDUV 691 Internship in Administration	9
EDUV 702 Master's Comprehensive Examination	0
TOTAL CREDITS	**42**

Doctor of Philosophy in Educational Management (Online)

The Doctor of Philosophy degree in Educational Management program is offered online through the Graduate College and Hampton University Online. The program provides candidates with an opportunity to develop the critical leadership skills and knowledge that are required in today's increasingly complex, diverse, and information-driven educational organizations. The program is designed to serve the advanced educational needs of top educational leaders by providing an executive hybrid program that allows individuals to pursue their degree without career interruption. The accelerated degree program is cohort based, with 15-20 students making up each cohort. The cohort model provides that students will matriculate together as they complete coursework and results in a deeper student support network.

Admission Requirements

Admission into the Doctor of Philosophy in Educational Management program is selective. Preferred prospective students have five or more years of professional experience working within an educational institution, with evidence of leadership roles garnering the highest rating. In reference to the concentration areas, preferred prospective students will hold teacher or administrator licensure or other educational certification (the PK-12 concentration), and leadership experience in a higher education institution (the highttps://docs.google.com/document/d/1dbaNoRIjm0VPrBQWg5o4OinWG_INtKxfHj_ACX8d670/edit?usp=sharingher education concentration). Students must have earned a master's degree and must submit two letters of recommendation and a prepared Statement of Career/Professional plans along with the application for admission. Students lacking a master's degree in Education must also take the GRE and earn a score of 150 or higher or the MAT with a minimum score for 42.

Summer Orientation

Candidates are required to attend Online Orientation Sessions during the Summer term as a component of their summer coursework. The Summer Orientation provides course content, mentoring, dissertation supervision, and networking. Dissertation defenses must take place on campus as well.

Curriculum

All doctoral students in education take the core curriculum and the research core. The core curriculum is structured around two broadly defined themes: Leadership and Management; and Socio-political and Cultural Contexts of Education. The research and practice core consists of courses in research methods, an internship, and dissertation research courses. Internships are geared toward implementing action research to address current issues and challenges in educational settings that are reflective of the students' concentration areas. Students are required to take and pass a comprehensive exam prior to entering the dissertation phase of the program.

Students work with a primary dissertation advisor and a dissertation advisory committee to formulate and conduct a culminating research project and to write the dissertation.

In addition to completion of common core courses, doctoral students must select one of two education concentration areas. The concentration areas are described below.

Higher Education

This concentration is focused on the challenges and means for addressing the rapidly evolving

postsecondary environment including - finance and affordability, student personnel administration systems, enrollment management, STEM student recruitment and retention, distance/remote teaching and learning technology, access, diversity and cultural competence, efficiency and effectiveness. It is geared toward practitioners seeking upper level positions in higher education and opportunities in academia.

PK-12 Administration (District-level leadership and beyond) This concentration is focused on the challenges and means for addressing the major issues facing K-12 leaders, such as standardized testing and accountability, school climate, distance/remote teaching and learning technology, equity issues and achievement gaps, high impact instructional practices, STEM Education curricula reform and policy, the needs of diverse and exceptional learners, teacher quality and retention, school choice and the charter movement. It is geared toward education administrators focused on obtaining leadership and practical research skills necessary to effectively lead at the highest organizational levels in K-12.

Doctor of Philosophy in Educational Management – PK-12 Administration Concentration (Online Program)

Courses/Title	Semester Hours
EDUO 611 Techniques and Problems in Ed. Research	3
EDUO 710 Leadership Theory and Practice in Educational Organizations	3
EDUO 718 Policy, Ethics, and Politics in Education	3
EDUO 717 History of PK-12 Educational Reform	3
EDUO 720 Assessment, Evaluation and Accountability	3
EDUO 719 Diversity and Equity in Education	3
STAO 600 Statistics	3
EDUO 725 Supervision & Prof. Dev.	3
EDUO 732 Quantitative Research Methods	3
EDUO 731 Qualitative Research Methods	3
EDUO 733 or 734 Advan. Quantitative./Qualitative	3
EDUO 727 Instructional Improvement	3
EDUO 735 Literature Review	3
EDUO 737 Ph.D. Comprehensive Exam	0
EDUO 726 Legal Issues in PK-12 Education	3
EDUO 739 Dissertation Research Seminar	3
EDUO 713 School District Finance & Budgeting	3
EDUO 740 Dissertation Research I	4
EDUO 741 Dissertation Research II	4
EDUO 742 Dissertation Research III	4
EDUO 743 Dissertation Defense	0
TOTAL CREDITS	**60**

Doctor of Philosophy in Educational Management – Higher Education Concentration (Online Program)

Courses/Title	Semester Hours
EDUO 611 Techniques and Problems in Ed. Research	3
EDUO 710 Leadership Theory and Practice in Educational Organizations	3
EDUO 718 Policy, Ethics, and Politics in Education	3
EDUO 716 Hist of Higher Ed	
EDUO 720 Assessment, Evaluation and Accountability	3
EDUO 719 Diversity and Equity in Education	3
STAO 600 Statistics	3
EDUO 722 College Student Dev.	3
EDUO 732 Quantitative Research Methods	3
EDUO 731 Qualitative Research Methods	3
EDUO 733 or 734 Advan. Quantitative./Qualitative	3
EDUO 724 Organization and Governance	3
EDUO 735 Literature Review	3
EDUO 737 Ph.D. Comprehensive Exam	0
EDUO 723 Legal issues in Higher Education	3
EDUO 739 Dissertation Research Seminar	3
EDUO 712 Higher Education Finance	3
EDUO 740 Dissertation Research I	4
EDUO 741 Dissertation Research II	4
EDUO 742 Dissertation Research III	4
EDUO 743 Dissertation Defense	0
TOTAL CREDITS	**60**

Medical Science

The primary purpose of the Master of Science degree program in Medical Science is to significantly increase the number of Hampton University graduates and others who matriculate in professional health career programs leading to the MD or DDS degree. This program prepares the graduate student for the arduous task of gaining admittance to professional schools by focusing upon the standardized examinations in the biomedical sciences and upon the courses offered in the first year of a doctoral medical program. The Graduate College and School of Science are dedicated to making Hampton University number one in the placement of our graduates in professional medical and allied health programs and to their success in those professional programs. The master's program has been modeled after highly successful post- baccalaureate programs and with input or commitments from medical schools.

Admissions Requirements

The admissions requirements to the Masters of Science in Medical Science program are equivalent to those of the Graduate College. The test scores on the MCAT (Medical College Admissions Test) or DAT (Dental Aptitude Test) are used in lieu of the GRE examination scores, to satisfy English Proficiency as stated in the section of this Catalog under that header. The Medical Science program conducts a rolling, competitive, admission process beginning on September 1 and ending on June 1 each year. Any graduate from an accredited undergraduate degree program is eligible. Applicants with the appropriate undergraduate prerequisites courses for admissions to medical and dental school will be considered.

Master of Science in Medical Science – Medical Post Baccalaureate Program

Course/Description	Credit Hours	
1st Year	**Fall**	**Spring**
Medical Science 601-602 Health Professions I-II	3	3
Medical Science 611-612 Pre-Medical Biology I-II	4	4
Medical Science 621-622 Pre-Medical Chemistry I-II	4	4
Medical Science 641 Pre-Medical Physics	3	-
TOTAL CREDITS – 1ST YEAR	**14**	**11**
2nd Year		
Medical Science 651-652 Bio Medical Chemistry I-II	4	4
Medical Science 655 Medical Physiology	4	-
Medical Science 662 Human Immunology/Virology	-	4
Medical Science 665 Medical Molecular and Cellular Biology	4	-
Medical Science 668 Medical Histology	-	4
Medical Science 702 Master's Comprehensive Examination	-	1
TOTAL CREDITS – 2ND YEAR	**12**	**13**
TOTAL CREDITS		**50**

Graduate Nursing Education

The School of Nursing's Department of Graduate Nursing Education offers several programs leading to the Master of Science degree. The on-campus program allows the student to choose between the advanced nursing practice roles of administration or education (must select a clinical speciality) or the advanced practice nursing role of nurse practitioner. There are two nurse practitioner areas of specialization at the Master's level: women's health, and family. The clinical specialty areas offered are Community Health, Advanced Adult and Community Mental Health/Psychiatric Nursing. Individuals who have earned a Bachelor of Science degree in Nursing from an accredited program are eligible to apply to the Master of Science degree program.

The Department of Graduate Nursing Education, along with the Graduate College and Hampton University Online offers online degree programs leading to the Doctor of Philosophy in Nursing. The Doctor of Philosophy (Ph.D.) degree program in Nursing has a focus on family and family-related research and a focus in higher education in nursing. Individuals who have earned a master's degree in Nursing are eligible to apply to the Doctor of Philosophy degree program.

National Accreditation

The baccalaureate degree programs in nursing and the master's degree programs in nursing at Hampton University is accredited by the Commission on Collegiate Nursing Education, 655 K. Street NW, Suite 750, Washington, DC., 20001, 202-887-6791; the undergraduate program is approved by the Virginia Board of Nursing (VBON). The School of Nursing is also an agency member of the National League for Nursing (NLN), and the American Association of Colleges of Nursing (AACN).

Student Health Status

The Nursing student must submit satisfactory credentials about his or her health status. These credentials are reviewed yearly and must be kept current by the student, otherwise the student will not be permitted to attend practicum courses. A current health record from a health care provider or family physician including evidence of an annual physical examination, and immunizations (PPD, influenza, varicella, MMR, Tdap, Hep B). The School of Nursing uses an outside vendor to facilitate the submission and clearance of required health evaluations, criminal background check and liability insurance information. If this procedure is not adhered to, the student will be requested to withdraw from the course.

Liability Insurance

All students are required to obtain and show evidence of liability insurance to cover the periods enrolled in practicum courses. Applications are available in the School of Nursing. However, students are encouraged to purchase liability insurance from any company of their choice.

Cardiopulmonary Resuscitation

All students majoring in Nursing must obtain certification in Basic Cardiac Life Support (BCLS) on a biennial basis. Students who do not fulfill the health status requirement, purchase liability insurance or fulfill cardiopulmonary resuscitation requirements will not be allowed to participate in the clinical experiences and will be unable to meet the requirements of the course.

Master of Science Degree in Nursing

Regular Admission

Students seeking admission to the Master of Science in nursing program are subject to the rules and regulations applied by the Graduate College. Admission to graduate study in Nursing at Hampton University is open to all qualified applicants who meet the requirements as stated in the Graduate Catalog. Potential students are encouraged to consult the Graduate Catalog prior to applying for admission. In addition, admission to the Master's program requires:

1. A bachelor's degree from an accredited program in Nursing.
2. An undergraduate Grade Point Average (GPA) of 2.7 overall and 2.7 in Nursing on a 4.0 scale.
3. Acceptable scores on the Graduate Record Examination (GRE), with a verbal score of at least 450 or an Analytical Writing Assessment score of at least 4.0. Scores are only good for five years after the testing year.
4. Completed application to the Graduate College
5. Two (2) letters of recommendation from professionals familiar with the applicant's professional qualifications. Letters should be on letterhead paper and address the nature of the professional's knowledge of the applicant. Letters should come from professionals, such as, the applicant's most recent employer, a previous nursing professor, supervisors and/or nurse managers. The professional providing the reference must also complete Parts II and III of the recommendation.
6. A personal statement that delineates the applicant's: 1) rationale for selecting Hampton University's master's program; 2) description of goals and aspirations; 3) how the applicant expects to benefit from master's level study; 4) previous research and scholarship and current research interest. The essay should be at least 3 to 5 typed pages, double spaced, 12 point font and either Times New Roman or Arial.

7. Graduate nursing students participating in clinical experiences must hold and maintain a valid license to practice as a registered nurse in the state/jurisdiction in which they will participate in clinical experiences.
8. An undergraduate course in statistics and an undergraduate course in physical assessment.
9. One year clinical experience beyond the baccalaureate degree prior to enrolling in a clinical course.
10. A current resume that includes sections on Education, Research and Scholarly Activity, and Service.
11. A personal interview (i.e. telephone, virtual/remote, or in person (at the student's expense) with a faculty member who teaches in the Master of Science degree program in the School of Nursing.
12. Approval of the Committee on Graduate Admissions, Scholarships and Standards of the School of Nursing.
13. Please note that the entire application package including the application form, application fee, transcripts, GRE scores, and letters of recommendation should be sent to: Graduate College, Hampton University, Hampton, Virginia 23668.

Clinical Experience

Students receive advanced practice Nursing experiences in a variety of cooperating agencies. State law requires that all persons having contact with, or caring for, minors must have criminal history record and sex offender and crimes-against-minors registry checks. General Promotion and Scholastic Requirements The Master of Science degree in Nursing requires satisfactory completion of an approved curriculum sequence.

1. Credit Hour Requirements: To be eligible for the Master of Science degree, the student must fulfill the requirements of either Plan A - Thesis and Thesis Defense, or Plan B - Comprehensive Examination.
2. Academic Grades: The School of Nursing may request that a student withdraw from the degree program for unsatisfactory performance. Progression in the professional Nursing curriculum requires continuing satisfactory performance in both theory and clinical Nursing courses. Students may be required to withdraw from the Nursing courses when failing to meet the standards of the Graduate College.
3. Prior to entering, all students must have successfully completed undergraduate courses in statistics and physical assessment, or provide documentation that physical assessment was included in courses in their undergraduate curriculum.
4. Admission to Candidacy: Students pursuing the Master of Science degree in Nursing should apply for admission to candidacy after earning between nine (9) and twenty-four (24) semester hours. Failure to comply with this regulation is equivalent to notification of withdrawal from the degree program.
5. Degree Completion - Candidates for the Master of Science degree in Nursing should apply for graduation through the Graduate College according to the deadlines established by the Graduate College for May, August, or December graduation. In general, this deadline is usually set at a date early in the semester prior to graduation.

Curriculum Plan for the Master of Science Degree Program

The Master of Science Degree programs can be completed in 44-50 hours of coursework, and the completion of a thesis and thesis defense, or a comprehensive examination. The programs are designed to afford students the opportunity to enroll on a full or part-time basis according to the existing structure of the Graduate College. Didactic courses are scheduled during evening hours to allow a student to remain in the workforce and continue the educational process. Clinical practicum experiences are planned according to the schedule of the affiliating agency or institution.

The following courses are required to obtain a Master of Science degree in Advanced Adult Nursing; Community Health Nursing; Community Mental Health/Psychiatric Nursing; and Family, or Women's Health Nursing, with a functional area as either an administrator, an educator, or a nurse practitioner.

The courses that are required to obtain a Master of Science degree are listed in the sequences below and vary by clinical specialty or role development area. Clinical specialization can be selected from Advanced Adult Nursing; Community Health Nursing; Community Mental Health/Psychiatric Nursing; and Family, or Women's Health Nursing, with a functional area as either an administrator, educator, or nurse practitioner. The curriculum is composed of courses selected from a nursing core, clinical specialty role development area, and cognate courses. The Nursing Core includes the following courses: Nursing 510, 512, 514, 609, 678, 681 or 683. The Clinical Specialty courses include Nursing 610-611 for Community Mental Health/Psychiatric Nursing, Nursing 612-613 for Community Health Nursing and Nursing 614-615 for Advanced Adult Nursing. Nursing 606 and 607 are required for role development as a Nurse Administrator while Nursing 604 and 605 are required for the role of Nurse Educator. The Nurse Practitioner role development courses are Nursing 618, 619, 621 and 630 for Family Nurse Practitioner; and, Nursing 635, 638, 639, 642, 643, 650, and 678 for Women's Health Nurse Practitioner. The Cognate courses that may be required include a course in statistics (STA 600), accounting (ACC 600/MBA 609) and human resources administration (MGT/MBA 648, NUR 640) and NUR 648 – Financial Management or Nursing Administrators.

Master of Science – Nursing Education Course Sequence

First Year	**Semester I**	**Summer I**
NUR 510 Conceptual Approaches to Nursing Practice		2
NUR 514 Advanced Physical Assessment		4
NUR 608 Advanced Pathophysiology		3
NUR 650 Role Development and Health Promotion for APRN		3
SEMESTER TOTAL		**12**

	Semester II	**Credits**
NUR 512 Organizational Behavior Group and Role Theory		3
NUR 678 Family Nursing Theory and Practice		3
NUR 604 Curriculum Development in Nursing Education		3

Clinical Specialty and Population Focus (One Course)

NUR 610 Community Mental Health /Psychiatric Nursing I, or Community Health Nursing I, or Advanced Adult Nursing I 4
NUR 612 Community Health Nursing I
NUR 614 Advanced Adult Nursing I

SEMESTER TOTAL **13**

Summer Session I **Credits**

STA 600 Statistics 3

SECOND YEAR **Semester III**

NUR 605 Teaching of Nursing 4
Clinical Specialty and Population Focus (Select One Course)
NUR 611 Community Mental Health/Psychiatric Nursing II, or Community Health Nursing II or Advanced Adult Nursing II ... 4
NUR 613 Community Health Nursing II
NUR 615 Advanced Adult Nursing II Research Focus (One Course)
*NUR 683 Research Methods in Nursing or Master's Thesis Research Thesis) 4
NUR 681 Master's Thesis Research (Thesis)

SEMESTER TOTAL **12**

Semester IV

NUR 609 Nursing Colloquium 3
Elective – Graduate Nursing Elective 3
*NUR 702 Comprehensive Examination 1

SEMESTER TOTAL **7**
TOTAL CREDITS **46/47**

** refers to Plan B*

Master of Science – Nursing Administration Course Sequence

FIRST YEAR **Semester I** **Credits**

NUR 510 Conceptual Approaches to Nursing Practice 2
NUR 648 Financial Management for Nursing Administrators or MBA600 Accounting Concepts 3
NUR 678 Family Nursing Theory and Practice 3
Elective – Graduate Nursing Elective 3
SEMESTER TOTAL 11

Semester II

NUR 606 Principles of Nursing Administration 6
Clinical Specialty and Population Focus (One Course)
NUR 610 Community Mental Health/Psychiatric Nursing I, or Community Health Nursing I, or Advanced Adult Nursing I 4
NUR 612 Community Health Nursing I
NUR 614 Advanced Adult Nursing I
SEMESTER TOTAL 10

Summer Session I

STA 600 Statistics 3

SECOND YEAR **Semester III** **Credits**

NUR 640 or MBA 648 Human Resources Administration 3

Research Focus (One Course)

*NUR 683 Research Methods in Nursing or Master's Thesis Research (Thesis) 4
NUR 681 Master's Thesis Research (Thesis)
NUR 512 Organizational Behavior Group and Role Theory 3

SEMESTER TOTAL **10**

Semester IV

NUR 607 Advanced Nursing Administration 5
NUR 609 Nursing Colloquium 3
Graduate Business Elective 3
*NUR702 Comprehensive Examination 1

SEMESTER TOTAL **12**
TOTAL CREDITS **45/46**

Master of Science – Family (FNP) Nurse Practitioner Course Sequence

Course/Description **Credit**

FIRST YEAR **Semester I**

NUR 510 Conceptual Approaches to Nursing Practice 2
NUR 650 Role Development and Health Promotion for APRN 3
NUR 608 Advanced Pathophysiology 3
NUR 514 Advanced Physical Assessment 4
Semester Total **12**

Semester II

NUR 630 Advanced Pharmacotherapeutics 3
NUR 618 Primary Care of Family I 5
NUR 678 Family Nursing Theory and Practice 3
Semester Total **11**

Summer Session I

STA 600 Statistics 3

SECOND YEAR **Semester III**

NUR 619 Primary Care of Family II: Specific Population 4
NUR 512 Organizational Behavior Group and Role Theory 3

Research Focus (One Course)

*NUR 683 Research Methods in Nursing or Master's Thesis Research (Thesis) 4
NUR 681 Master's Thesis Research (Thesis)
Semester Total **11**

Semester IV

NUR 609 Nursing Colloquium 3
NUR 621 Primary Care of Family III 4
*NUR 702 Comprehensive Examination 1
Semester Total **8**
TOTAL CREDITS **44/45**

**refers to Plan B*

Master of Science – Women's Health (WHNP) Nurse Practitioner Course Sequence

Course/Description **Credit**

FIRST YEAR **Semester I**

NUR 510 Conceptual Approaches to Nursing Practice 4
NUR 514 Advanced Physical Assessment 2
NUR 608 Advanced Pathophysiology 3
NUR 650 Role Development and Health Promotion for APRN 3
SEMESTER TOTAL **12**

Semester II

NUR 630 Advanced Pharmacotherapeutics 3
NUR 638 Health Care of Women 1: Childbearing 4
NUR 678 Family Nursing Theory and Practice 3
STA 600 Statistics 3
SEMESTER TOTAL **13**

Summer Session I

NUR 639 Health Care of Women II: Lifespan 4

SECOND YEAR **Semester III**

NUR 642 Health Care of Women III: Primary Care 4
NUR 512 Organizational Behavior Group and Role Theory Research Focus (One Course) 3
*NUR 683 Research Methods in Nursing or Master's Thesis Research (Thesis).....4
NUR 681 Master's Thesis Research (Thesis)
Semester Total **11**

Semester IV

NUR 635 Frameworks of Women's Health.....2
NUR 609 Nursing Colloquium.....3
NUR 643 Health Care of Women IV Low-Risk Childbearing Families 4
*NUR 702 Comprehensive Examination 1
Semester Total **9/10**
TOTAL CREDITS **49/50**

**refers to Plan B*

Doctor of Philosophy Degree in Nursing

The Ph.D. in Nursing program at Hampton University requires a minimum of 60 hours of course work and the completion of an original research project resulting in the dissertation. The program is designed such that students may complete all requirements for the Ph.D. within three (3) years. Courses are taught in eight (8) week terms year round. Once a student enters into the Dissertation phase, he/she must maintain continuous enrollment (fall, spring, and summer semester/terms) until all degree requirements are completed.

Family and family-related research and higher education in nursing are the two areas of emphasis for the degree. Core, research and dissertation courses requirements are the same for all students regardless of their research interests. Students are able to pursue their individual interests by selecting cognate courses. Students may only select one cognate – Family Nursing or Nurse Educator. The program is designed to be flexible enough to be adjusted to the appropriate needs of the students.

To complete the program, students are required to satisfactorily complete core, research, cognate and dissertation courses, an approved area of related research study, and demonstrate research competence through the completion of the dissertation. The student's competence and scientific knowledge are tested through two doctoral examinations: a comprehensive examination, and an oral defense of the dissertation.

The Dissertation Committee (appointed by the Dean of the Graduate College upon recommendation by the department) consists of a minimum of three (3) members, only one of whom may be outside of the department or the University. The dissertation committee administers the Comprehensive Examination and the oral defense of the dissertation. The Comprehensive Examination tests the student's knowledge in the general area of study and the student's understanding of relevant fields of study which are supportive of the student's dissertation research. The Comprehensive Examination is taken at the end of the student's coursework, prior to beginning the dissertation research, which includes a draft of the dissertation. Students must enroll in Nursing 800 to register to take the Comprehensive Examination. If the student fails to satisfactorily complete this examination, it may be retaken once. Students are required to orally defend the dissertation before their Committee and at least two other faculty members who have expertise in the research area selected by the student. Students must be enrolled at Hampton University during the semester of graduation. Therefore, a student who is only enrolled in Dissertation Defense (0) credit hours must also complete the CRT form and pay the requisite fee.

Regular Admission

Students seeking admission to the Doctor of Philosophy program are subject to the rules and regulations of the Graduate College. Admission to the doctoral program is open to all qualified applicants who meet the requirements as stated in the Graduate Catalog. Potential students are encouraged to consult the Graduate Catalog prior to applying for admission. In addition, admission to the doctoral program requires the following:

1. A Master of Science degree in Nursing and/or a Doctor of Nursing Practice (DNP) from an accredited program.
2. A graduate level grade point average (GPA) of at least 3.5 on a 4.0 scale.
3. A graduate-level research course is required as a prerequisite for NURO 670.
4. A completed application submitted to the Graduate College.
5. A personal statement that delineates the applicant's (1) rationale for selecting Hampton University's doctoral program, (2) description of goals and aspirations, (3) expectations of doctoral study, (4) previous research and scholarship, and (5) current research interest that could lead to the development of a dissertation. The statement should be between 3 and 5 typed pages, double spaced, and in a 12-point Times New Roman or Arial font.
6. A current curriculum vita that includes sections on education, research and scholarly activity, and service.
7. A current valid license to practice professional Nursing in any state at the time of admission.
8. A personal interview via telephone, cyber communication methods or in person (at the student's expense) with a faculty member who teaches in the doctoral program.
9. Three (3) letters of recommendation from persons familiar with the applicant's employment and academic qualifications are required. Letters should be on professional letterhead and address the applicant's qualifications. Recommendations must come from professionals, such as the applicant's most recent employer, a previous nursing professor, supervisors, and/or nurse managers. The professional providing the reference must also complete Part II and Part III of the Recommendation Form.
10. Approval of the Graduate Admissions, Scholarship and Standards Committee of the School of Nursing.
11. Complete applications for admission must be received by the deadline of January 15th for fall admission.

12. Please note that the entire application package, including the application form, transcripts, and letters of recommendation, must be sent to the Graduate College, Hampton University, Hampton, Virginia 23668.

Doctor of Philosophy Degree in Nursing

Students enrolled in the PhD in Nursing program must complete 20 hours of core course work, 15 hours of research course work, select a cognate focus (family/family related or nurse educator) and complete 9 hours, and complete 16 hours of dissertation research course work. Nursing Cognate courses address the specific substantive and methodological focus of the dissertation research. The courses listed in the sequence below are required to obtain a Doctor of Philosophy Degree in Nursing at Hampton University in the Family and Family Related Nursing or Nurse Educator tracks.

Doctor of Philosophy in Nursing Curriculum Sequence

Course		Credits	
YEAR ONE			
Fall Semester	**8 week terms**	**1st**	**2nd**
NURO 704		2	-
NURO 670		3	-
NURO 710		-	3
NURO 714		-	3
TOTAL		**5**	**6**
Spring Semester	**8 week terms**	**1st**	**2nd**
NURO 711		3	-
NURO 716		3	-
NURO 712		-	3
NURO 713		-	3
TOTAL		**6**	**6**
Summer 8 week term			
NURO 717		3	
TOTAL		**3**	
YEAR TWO			
Fall Semester	**8 week terms**	**1st**	**2nd**
NURO 715 or 719		3	-
Cognate		3	-
NURO 718		-	3
NURO 725		-	3
TOTAL		**6**	**6**
Spring Semester	**8 week terms**	**1st**	**2nd**
NURO 800		0	-
Cognate		3	-
NURO 801		-	4
TOTAL		**3**	**4**
Summer 8 week term			
Cognate		3	
TOTAL		**3**	
YEAR THREE			
Fall Semester	**8 week terms**	**1st**	**2nd**
NURO 802		4	-
NURO 803		-	4
TOTAL		**4**	**4**
Spring Semester	**8 week terms**	**1st**	**2nd**
NURO 804		4	-
NURO 805*		-	0
TOTAL		**4**	**0**
Total Credits Required for Graduation			**60**

**CRT fee required*

NURSING DOCTORAL CORE COURSES: Family & Family Related Research (20 hours)

Course/Title	Credits
NURO 704 Intro to Online Learning/Scientific Writing	2
NURO 710 Family/Family Related Research: Historical and Cultural Perspectives	3
NURO 711 Family/Family Related Research: Philosophical, Conceptual and Theoretical Perspectives	3
NURO 712 Family/Family Related Research: Theory & Concept Analysis	3
NURO 713 Family/Family Related Research: Leadership, Policy, and Ethics	3
NURO 718 Analysis & Evaluation of Theory Generating & Theory Testing Research	3
NURO 717 Family Research: Instrument Development	3

NURSING DOCTORAL RESEARCH CORE COURSES: (15 hours)

Course/Title	Credits
NURO 670 Statistics for Health Professionals	3
NURO 714 Quantitative Methods I	3
NURO 716 Qualitative Methods I	3
(Choose One)	
NURO 715 Quantitative Methods II or	3
NURO 719 Qualitative Methods II	
NURO 725 Grantsmanship and Publications	3

NURSING DOCTORAL FAMILY/FAMILY RELATED COGNATE COURSES: (9 hours)

Course/Title	Credits
NURO 720 Dissemination & Utilization of Family Nursing Research	3
NURO 721 Vulnerable Populations: A Family Perspective	3
NURO 722 Special Topics in Family Nursing	3
NURO 723 Family Research	3
NURO 724 Special Topics in Family Research & Family Development Theory	3
NURO 700 Independent Study	3

NURSING DOCTORAL NURSE EDUCATOR COGNATE COURSES: (9 hours)

Course/Title	Credits
NURO 726 Creating the Future of Nursing Education	3
NURO 727 Learning Theories & Educational Philosophy	3
NURO 728 Assessment, Evaluation & Accreditation of Nursing Programs	3
NURO 729 Teaching Strategies for Nursing Educators	3
NURO 731 Curriculum Development in Nursing Education	3
NURO 733 Advanced Internship in Nursing Education	3

DISSERTATION CORE COURSES: (16 hours)

Course/Title	Credits
NURO 800 PhD Comprehensive Examination	0
NURO 801 Dissertation I	4
NURO 802 DIssertation II	4
NURO 803 Dissertation III	4
NURO 804 Dissertation IV	4
NURO 805 Dissertation Defense	0

Physical Therapy

Hampton University offers an entry-level Doctor of Physical Therapy degree program (DPT). This program is designed to prepare physical therapists at an entry-level that exhibit the diagnostic and evaluative skills necessary for autonomy and competence in therapeutic interventions. In addition, the curriculum goals emphasize the acquisition in skills related to critical inquiry, communication, and sensitivity to diversity, planning for self-growth and understanding, management in the healthcare environment, and application of ethical principles and values.

Admission Requirements

Students who seek admission to the Physical Therapy program are subject to all the rules and regulations applied by the Graduate College and to the additional regulations listed below. Admission to the program is competitive and the number of students that can be admitted to the program is limited. Applicants who satisfy all requirements for admission will be eligible for a personal interview with the Admissions Committee of the Department of Physical Therapy. Admission occurs in the fall semester of each year. The following are admission criteria for the Physical Therapy Program:

1. A 3.0 cumulative GPA (grade point average) of all coursework with a minimum GPA of 2.8 in the sciences and mathematics prerequisite courses.
2. A knowledge of the profession as evidenced by the following:
   a. An essay detailing the reasons for the professional choice
   b. A minimum of 40 hours of volunteer or work experience in physical therapy with proper documentation signed by a licensed physical therapist.
3. Two letters of recommendation addressing the applicant's moral character and suitability for a Physical Therapy career.
4. A personal interview with members of the admission committee.
5. Results of the Graduate Record Examination (GRE). Minimum 950 combined verbal and quantitative score.
6. Bachelor's Degree
7. Completion, with a "C" or better, of the following prerequisite courses or their equivalent:

Course Title/Description	Credit Hours
General Biology w/lab	4
General Chemistry I & II w/lab	8
Human Anatomy w/lab	4
Human Physiology	3
General Psychology	3
Introduction to Statistics	3
*PHT 201 Introduction to Physical Therapy	2
Physics I & II w/lab	8
TOTAL	**35**

**Preferred enrollment for HU undergraduate students who take this course in preparation for the DPT Program.*

**Medical Terminology course is highly recommended.*

Note that all science and mathematics prerequisites must have been completed within eight (8) years of application.

Accreditation

Hampton University has approval to confer the Doctor of Physical Therapy degree from the State Council on Higher Education in Virginia (SCHEV) and accreditation from the Commission on Accreditation in Physical Therapy Education (CAPTE).

General Requirements

The Doctor of Physical Therapy (DPT) Degree Program requires a minimum of 112 credit hours beyond the baccalaureate level. The student is required to complete 92 credit hours of coursework, 20 credit hours of clinical experience. There are no departmental foreign language requirements for the DPT degree. The curriculum plan is designed for full time enrollment only. Students are required to follow the curriculum sequence as mandated by the Department. Students who pass the Comprehensive Examination may be awarded a Doctor of Physical Therapy degree when all other requirements for that degree are satisfied. Upon graduation, students are eligible to sit for the state licensure examination. A state licensure is required to practice Physical Therapy in the United States.

The following requirements/regulations apply to the DPT degree:

1. To be eligible for the DPT degree, the student must earn a minimum of 92 semester hours of core courses, 20 semester hours of clinical internship.
2. All students must satisfactorily complete all clinical experiences.
3. Students are required to pass a comprehensive examination prior to graduation.
4. Transfer credits are not accepted for core DPT courses or clinical internships.
5. Students are required to follow the sequence of courses established by the Department.

Program Completion

To complete the program the student must:

1. Complete satisfactorily all didactic and clinical courses, and
2. Pass the comprehensive exam in the last semester of the program.

Facilities

The Department of Physical Therapy is located in Phenix Hall. The facilities include a cadaver laboratory for anatomy instruction and dedicated clinical laboratory space, The Department provides clinical experiences for students through various clinical facilities in Virginia and throughout the United States.

Doctor of Physical Therapy

Requirement	Description	Credit Hours		
1st Year		**Fall**	**Spring**	**Summer**
Physical Therapy 600 Anatomy		6	-	-
Physical Therapy 602 Kinesiology		4	-	-
Physical Therapy 604 Tests and Measurements		5	-	-
Physical Therapy 607 Motor Control and Learning		-	-	2
Physical Therapy 609 PT Seminar I: The Profession		1	-	-
Physical Therapy 611 Basic Skills in Physical Therapy		-	4	-
Physical Therapy 612 Pathology		-	3	-
Physical Therapy 614 Neuroscience		3	-	-
Physical Therapy 615 Integrated Case Management Lab I		-	-	1
Physical Therapy 616 Neuroscience II		-	3	-
Physical Therapy 617 Physical Agents		-	3	-
Physical Therapy 618 Research I		-	2	-
Physical Therapy 625 PT Seminar II		-	-	1
Physical Therapy 634 Neurologic Management I		-	-	3
Physical Therapy 643 Musculoskeletal Management I		-	-	3
SUBTOTAL:		**19**	**15**	**10**
2nd Year	**Fall Spring Summer**			
Physical Therapy 606 Exercise Physiology I		3	-	-
Physical Therapy 620 Pharmacology		2	-	-
Physical Therapy 630 Prosthetics and Orthotics		-	-	3
Physical Therapy 631* Clinical Education I		4	-	-
Physical Therapy 635 Cardiopulmonary Physical Therapy		-	4	-
Physical Therapy 641* Clinical Education II		-	4	-
Physical Therapy 642 PT Seminar III: Ethics		-	2	-
Physical Therapy 645 Pediatrics		-	-	4
Physical Therapy 647 Community Health		-	3	-
Physical Therapy 649 Musculoskeletal Management II		3	-	-
Physical Therapy 651 Neurologic Management II		3	-	-
Physical Therapy 655 Research II		-	2	-
Physical Therapy 659 Case Management Lab II			-	1
Physical Therapy 668 Research III		-	-	2
Physical Therapy 675 Teaching & Learning		2	-	-
SUBTOTAL:		**17**	**15**	**10**
3rd Year		**Fall**	**Spring**	
Physical Therapy 653 PT Administration and Management		3	-	
Physical Therapy 661 Clinical Education III		4	-	
Physical Therapy 663 Special Topics		4	-	
Physical Therapy 664 Differential Diagnosis		3	-	
Physical Therapy 665 Comprehensive Examination		1	-	
Physical Therapy 669* Clinical Education IV		-	4	
Physical Therapy 673 Research IV		2	-	
Physical Therapy 677* Clinical Education V		-	4	
Physical Therapy 679 Comprehensive Exam Part II		-	1	
SUBTOTAL:		**17**	**9**	
TOTAL CREDITS:			**112**	

**Placement of students in clinical rotations depends on availability of clinical sites. Clinical rotations may be in the Hampton Roads area and/or throughout the US.*

Physics

The Department of Physics offers coursework and research opportunities that lead to the degrees of Master of Science and Doctor of Philosophy in Physics and in Physics with a Medical Physics Emphasis. This graduate program is designed to train students to become independent researchers and critical thinkers in order to play pivotal roles in a variety of careers in Academia, Industry and Government, and in shaping the future of our global society.

The Department of Physics is located in the Olin Building for the academic programs and has well-equipped laboratories and computer rooms for the undergraduate and graduate programs. Medical, Optical, Plasma and Nuclear Physics concentrations are available through the department. The faculty, staff, and students conduct research on-campus in the Graduate Physics Research Facility, in the Olin Building, in the Research-I (W. Frank Fountain Research Center) and Research-II buildings, and off-campus at the Thomas Jefferson National Accelerator Facility (Jefferson Lab) and other national and international research institutions when appropriate funding is available.

Master of Science – Physics (Except Medical Physics)

The thesis-based Master of Science degree is a 2-3 year program designed to provide graduate education for those persons who seek the master's as the terminal degree or seek to pursue the master's en route to a doctoral degree in physics, atmospheric science, or planetary science. The applicant to the program is expected to have a baccalaureate degree in physics, engineering, a related field, or equivalent experience. Students are required to complete a minimum of 18 hours of required courses, nine (9) hours of approved electives and three (3) hours of thesis research. Students prepare and defend a Master's thesis in partial fulfillment of requirements for graduation from the program. The admission and completion requirements are the same as those of the Graduate College except as noted. An average grade of "B" or better is required overall in the core courses.

CORE COURSES

Course/Description	Credit Hours
Physics 601 Mathematical Physics I	3
Physics 605 Theoretical Mechanics I	3
Physics 607 Electromagnetic Theory I	3
Physics 611 Thermodynamics and Statistical Mechanics	3
Physics 613 Quantum Theory I	3
Other requirements	
Physics 616/617 Research	3
Physics 681 Thesis	3

Electives

Approved electives in physics and related areas	9
TOTAL	**30**

Master of Science – Physics with Medical Physics Emphasis

The program was designed to conform to guidelines established by the Commission on Accreditation of Medical Physics Education Programs (CAMPEP), and prepare students for eventual certification by the American Board of Radiology (ABR). The program is currently in the process of applying for CAMPEP accreditation. Once accredited, it is expected that graduates will sit for one of the ABR certification exams in the three subfields of specialty: 1) Therapeutic Radiological Physics, 2) Diagnostic Radiological Physics, and 3) Medical Nuclear Physics. The admission and completion requirements are the same as those of the Graduate College, except as noted. Prerequisite undergraduate courses include quantum mechanics, electricity and magnetism, mechanics, anatomy and physiology. Applications will be reviewed individually, and additional courses to the basic program may be suggested. An average grade of "B" or better is required overall in the core courses. There is a prerequisite interview for all clinical rotations. The Health Insurance Portability and Accountability Act (HIPPA) establishes strict rules regarding patient privacy.

CORE COURSES

Requirement/Description	Credit Hours
Physics 601 Mathematical Physics I	3
Physics 605 Theoretical Mechanics I	3
Physics 607 Electromagnetic Theory I	3
Physics 611 Thermodynamics and Statistical Mechanics	3
Physics 613 Quantum Theory I	3

Other Required

Physics 616/617 Research	3-6
Physics 624 Physics of Medicine	3
Physics 625 Diagnostic Imaging	3
Physics 626 Nuclear Medicine	3
Physics 627 Radiation Therapy Physics and Dosimetry	3
Physics 628 Health Physics Radiation Protection	3
Physics 629 Radiation Biology	3
Physics 630-632 Clinical Rotations I – II - III	12
Physics 681 Thesis	3
Physics 707 Advanced Nuclear Physics I	3
Physics 714 Radiation and Detectors	3
TOTAL	**57-60**

Doctor of Philosophy Degree in Physics

The goals of the Ph.D. program in Physics at Hampton University are (1) to establish a research oriented environment in which students may study advanced topics in physics beyond the master's level, participate in state-of-the-art-research and pursue original ideas and concepts that contribute to the body of knowledge in physics; (2) to provide a source of scientifically and technologically trained personnel for local, state, national and international needs; and (3) to significantly impact the number of underrepresented minorities with advanced degrees in physics. Nuclear, optical, and medical physics are the areas of emphasis for the degree. Students are able to select the desired track by pursuing advanced courses and the dissertation in one of these areas. In all cases, the degree awarded is the Doctor of Philosophy.

Admission

Students at either the post-baccalaureate level or post-master's level who seek admission to the Ph.D. program are subject to all the rules and regulations applied by the Graduate College given previously in this Catalog for master's students. Modification or additional regulations are given in the following sections. Admission to the doctoral program requires an undergraduate or master's degree in physics or a closely related field. Applicants who do not already hold an appropriate master's degree must have at least an undergraduate grade point average of 3.0 on a 4.0 scale. The Graduate Record Examination (GRE) general test is required. Applicants who do not already hold the appropriate master's degree must submit official GRE scores on the verbal and quantitative sections.

Degree Requirements

The Physics Ph.D. program at Hampton University requires a minimum of 74 credit hours of coursework beyond the baccalaureate level. The student is required to pass the doctoral qualifying examination (1 credit hour), a minimum of 24 credit hours of core physics courses (with an average grade of "B" or better), 12 credit hours of approved 600+700 level elective courses, a minimum of 36 hours of dissertation research, completion of a written dissertation and oral defense of that work (1 credit hour). If a student can demonstrate proficiency in certain core subjects by passing the qualifying examination, the courses in those subjects can be waived at the discretion of the department. There are no departmental foreign language requirements for the doctoral degree. A residency of two consecutive years of full-time study is required. All students must participate in a minimum of two courses as a supervised teaching assistant. Students must complete all requirements for the Ph.D. within seven (7) years after entering the program.

The Doctoral Qualifying Examination

The goal of the Doctoral Qualifying Examination is to determine the student's aptitude for and potential to successfully carry out his or her research plan and write and defend a Doctoral Dissertation. The student must be enrolled in Physics 703, have permission of the Department and the Graduate College, and be in good standing to take the Doctoral Qualifying Examination. A Qualifying Examination Committee, selected from the graduate physics faculty, is charged with monitoring the construction, implementation and grading of the Qualifying Examination.

The examination is given in four parts. These cover (1) Classical Mechanics, (2) Electricity and Magnetism, (3) Quantum Mechanics and (4) Thermodynamics, Statistical Physics and Mathematical Physics. The examination covers graduate (600) level work in these areas. The examination is administered, at the Qualifying Examination Committee's discretion, once or twice per year at dates appropriate to the students and the Department's needs. All required parts of the test must be taken during the first administration of the examination. Each part of the test will be approximately two to four hours in length. Grading will be conducted by members of the Qualifying Examination Committee and other physics graduate faculty. Each part of the examination will be scored separately; therefore, it will be possible to satisfactorily complete only parts of the test.

A student will be permitted to take the examination twice. In the second attempt, the student will be required to repeat the part or parts he or she failed. In case the written examination is insufficient to determine the student's aptitude and potential for graduate level research, the Qualifying Examination Committee may decide to administer a supplemental oral examination. In this case a six (6) month extension to the time limits discussed below will be granted to the student, to allow him or her enough time to prepare for this supplemental oral examination.

Students must take the examination by the end of their second year in the doctoral program and must undertake the second attempt, if needed, by the end of the third year. Students who do not successfully pass the doctoral qualifying examination by their second attempt may transfer to the master's degree program and receive a master's degree after completing the master's thesis. If a student already has a master's degree in physics, this option does not apply.

Transfer Credit and Course Waiver Limitations The program is designed to be flexible enough to be adjusted to the needs of each student individually.

A student who enters the doctoral program already holding an appropriate master's degree may have up to 27 credit hours of the doctoral degree core or required courses waived at the discretion of the Department. A student who enters the doctoral program with prior graduate work, but who does not hold the master's degree, may transfer up to nine (9) credit hours of core courses toward the doctoral degree requirements. Up to 15 more credit hours of core courses may be waived at the department discretion. Students of either category are nonetheless required to pass the Doctoral Qualifying Examination.

Doctoral physics students may be eligible to take certain courses in the Virginia Physics Consortium (VPC). The VPC is an ongoing partnership between Virginia institutions and the Thomas Jefferson National Accelerator Facility. Students wishing to take courses through the VPC must receive approval from both the Physics Department Chairperson and the Dean of the Graduate College.

The Doctoral Dissertation

Each student is required to plan and carry out an extended plan of original research that leads to a doctoral dissertation and then defend the dissertation. The oral defense of the dissertation is also a test of the student's knowledge of physics in the area of specialization. The dissertation committee (appointed by the Dean of the Graduate College upon recommendation by the Department) consists of a minimum of 4 members, at least one of whom will be outside of the Department. The Dissertation Committee will have the responsibility of administering the Final Comprehensive Examination as part of the oral defense and may specify additional requirements that the student must meet in order to satisfy requirements for the degree. If the student fails to satisfactorily complete this oral examination, it may be retaken once at the discretion of the Dissertation Committee.

Doctor of Philosophy – Physics (Except Medical Physics)

CORE COURSES

Requirement/Description	Credit Hours
Physics 601-602 Mathematical Physics I – II	6
Physics 605 Theoretical Mechanics	3
Physics 607-608 Electromagnetic Theory I - II	6
Physics 611 Thermodynamics and Statistical Mechanics	3
Physics 613-614 Quantum Theory I - II	6
Physics 703 Ph.D. Qualifying Examination	1
Other Required	
Physics 6xx/7xx Advanced Elective Courses **	12
Physics 791 Dissertation Research	36
Physics 798 Final Comprehensive Examination	1
TOTAL	**74**

**Note that an average grade of "B" or better is required in the core courses, with the exception of PHY 703.*

***A minimum of 12 credit hours must be selected from courses numbered PHY 704 through 791 or 600-level courses within the area of the student's specialization; the chosen courses must be approved by the Department or dissertation committee chairperson. Additional courses may be required at the discretion of the dissertation committee.*

Doctor of Philosophy – Medical Physics Emphasis

The 4-5 year doctoral degree program with emphasis in Medical Physics was designed to conform to guidelines established by the Commission on Accreditation of Medical Physics Education Programs (CAMPEP), and prepare students for eventual certification by the American Board of Radiology (ABR). The program is currently in the process of applying for CAMPEP accreditation. Once accredited, it is expected that graduates will sit for one of the ABR certification exams in the three subfields of specialty: 1) Therapeutic Radiological Physics, 2) Diagnostic Radiological Physics, 3) Medical Nuclear Physics.

The same requirements and rules discussed for the general Doctor of Philosophy in Physics degree students also apply to students who follow the Medical Physics track, except as noted in this section.

Requirements for admission include a baccalaureate degree in physics, engineering, a related field, or equivalent experience. Prerequisite undergraduate courses include quantum mechanics, electricity and magnetism, mechanics, anatomy and physiology. Applications will be reviewed individually, and additional courses to the basic program may be suggested. The Ph.D. student is expected to complete all the course requirements listed below. An average grade of "B" or better is required for all core courses. A graduate course in anatomy and physiology (BIO 609) may be required. There is a prerequisite interview for all clinical rotations. The Health Insurance Portability and Accountability Act (HIPPA) establishes strict rules regarding patient privacy. As with all other Ph.D. students, the doctoral degree recipient must pass the Physics Department qualifying examination. In addition, the student will prepare and defend a doctoral thesis.

CORE COURSES

Requirement/Description	Credit Hours
Physics 601 Mathematical Physics I	3
Physics 605 Theoretical Mechanics	3
Physics 607-608 Electromagnetic Theory I - II	6
Physics 611 Thermodynamics and Statistical Mechanics	3
Physics 613-614 Quantum Theory I - II	6
Physics 703 Ph.D. Qualifying Examination	1
Other Required	
Physics 624 Physics of Medicine	3
Physics 625 Diagnostic Imaging	3
Physics 626 Nuclear Medicine	3
Physics 627 Radiation Therapy Physics and Dosimetry	3
Physics 628 Health Physics Radiation Protection	3
Physics 629 Radiation Biology	3
Physics 630-633 Clinical Rotation I – II – III - IV	16
Physics 707 Advanced Nuclear Physics I	3
Physics 714 Radiation and Detectors	3
Physics Elective - Advanced course chosen from PHY 719, 735, 736, or 743, or an approved 600-level course	3
Physics 791 Dissertation Research	10
Physics 798 Final Comprehensive Examination	1
TOTAL	**76**

**Note that an average grade of "B" or better is required in the core courses, with the exception of PHY 703*

Master of Science in Sport Administration

The Master of Science degree in Sport Administration is comprised of two concentrations: Intercollegiate Sport, and Organizational Behavior and Sport Business Leadership. The graduate program will work collaboratively with Hampton University Athletics and local, state and national sport organizations. This collaboration will strengthen all areas by allowing students to do internships, volunteer work, and specified course assignments with the athletics department and sport organizations throughout the country. Content delivery will combine both online and on campus delivery.

Our main goals are:

- To provide comprehensive graduate training for students wishing to complete a degree in sport administration.
- To create a strong, intra-university collaboration; in addition to developing community relations, and strong partnerships for internships and jobs with sport organizations.
- To make innovative and major contributions to this growing field of study both domestically and abroad. Creating a dynamic and competitive program while providing excellent research will be essential for attracting the best students and superb faculty.

Organizational Behavior and Sport Business Leadership Curriculum Sequence

Requirement/Description	Fall Semester	Credit Hours
PED 601 Sport Law		3
PED 611 Research Methods		3
PED 623 Sport and Social Responsibilities		3
TOTAL		**9**
	Spring Semester	
PED 600 Sport Marketing		3
PED 602 Sport Finance		3
PED 624 Organizational Leadership		3
TOTAL		**9**
	Summer Semester	
PED 615 Adv. Marketing-Appl. Research Sales		3
PED 616 Public Relations & New Media		3
TOTAL		**6**
	Fall Semester	
PED 631 or 632 Internship or Thesis		6
PED Elective - Elective		3
TOTAL		**9**
TOTAL CREDIT HOURS		**33**

M.S, Sport Administration Intercollegiate Athletics Curriculum Sequence

Requirement/Description	Fall Semester	Credit Hours
PED 601 Sports Law		3
PED 611 Research Methods		3
PED 623 Sport And Social Responsibilities		3
TOTAL		**9**
	Spring Semester	
PED 600 Sport Marketing		3
PED 602 Sport Finance		3
PED 624 Organizational Leadership		3
TOTAL		**9**
	Summer Semester	
PED 619 NCAA Compliance		3
PED 620 Sport Governance		3
TOTAL		**6**
	Fall Semester	
PED 631 or 632 Internship or Thesis		6
PED Elective		3
TOTAL		**9**
TOTAL CREDIT HOURS		**33**

Course Descriptions – Main Campus

Symbols for Course Descriptions.

100, 200, 300 & 400-level courses may be taken by undergraduate students.

500-level courses may be taken by graduate or undergraduate students.

600, 700 and 800 -level courses may only be taken on the graduate level.

Example Course Description:

PSY 307 Methods in Psychology II (1)
Lec. 2./Lab 2./Credit 3.

Advanced analysis in behavioral, personality and social research. Practice in experimental and statistical treatments of laboratory and field investigation. Critical analysis of research findings and theory. Prerequisites: PSY 208 and 347.

Symbol:

PSY	Course acronym – PSY for Psychology
307	Course number – undergraduate level course
(1)	Course offered first semester only.
(2)	Course offered second semester only.
Lec. 2.	Two hours lecture per week.
Lab 2.	Two hours laboratory each week.
Sem. 2.	Two hours seminar each week.
Credit 3	Number of credit hours for the course.
Ind.	Independent Study
Cop.	Co-op
Trn.	Internship
Online	Taught in online format
Cln.	Clinical
Stu.	Studio
Wks.	Workshop
Pjt.	Project
Prb.	Problem Session

Please see the latest scheduling guide or online catalog for frequency of course offerings.

ACC (Accounting)

ACC 203 Accounting Principles I Lec. 3./Credit 3.
An introduction to principles and practices with emphasis on the sole proprietorship, servicing and merchandising companies. The accounting cycle is applied to the analysis of transactions resulting in preparation, analysis and interpretation of financial statements. Prerequisite: MAT 117 or higher.

ACC 204 Accounting Principles II Lec. 3./Credit 3.
An introduction to principles and practices with emphasis on the partnership and corporate forms of business including manufacturing companies. It incorporates managerial concepts in planning, controlling, analyzing and internal reporting as it affects the decision-making process and emphasizes the preparation and analysis of the statement of cash flow. Prerequisite: ACC 203.

ACC 309 Intermediate Accounting I Lec. 3./Credit 3.
Study of financial statement format and terminology. Coverage of intermediate accounting principles and presentation underlying assets, liabilities and equity sections of the balance sheet. Prerequisite: ACC 204.

ACC 310 Intermediate Accounting II Lec. 3./Credit3.
Study of standard setting within the accounting profession. Coverage of short and long-term liabilities, stockholders equity and earnings per share topics. In addition the course includes case study coverage of financial statement analysis and revenue recognition. Prerequisite: ACC 309.

ACC 360 Accounting Cooperative Education/ Internship
Trn./Credit 1-6.
Co-ops and internships are on-the-job paid experiences in the area of accounting in business or government that serve as a laboratory for integrating the theoretical with practical experiences. Co-ops are for six months duration and worth up to 6 credits, whereas internships are for summer employment and worth up to 3 credits. Students may arrange for co-ops or internships in their junior and senior year. Prerequisite: ACC 204 and permission of the department chairperson.

ACC 415 Cost Accounting Lec. 3./Online/Credit 3.
A study of procedures for inventory valuation, budgeting, cost control, and development of price and production policy. Students prepare internal financial reports for management decision-making. Prerequisite: ACC 204.

ACC 416 Auditing Lec. 3./Credit 3.
An examination of auditing standards and services in accounting; including ethical considerations and internal auditing. Prerequisite: ACC 310.

ACC 417 Advanced Accounting I Lec. 3./Credit 3.
An analysis of principles and procedures of consolidations and mergers. Topics include business combinations, intercorporate investments and branch accounting. Prerequisite: ACC 310.

ACC 418 Advanced Accounting II Lec. 3. /Credit 3.
In-depth presentation, interpretation and analytical procedures required by Generally Accepted Accounting Principles (GAAP) as they relate to corporations in financial difficulty (bankruptcy); estates and trusts; partnerships (formation and operation); international accounting, governmental accounting, and not-for-profit entities. Prerequisite: ACC 310.

ACC 419 Federal Tax Fundamentals Lec. 3. /Credit 3.
Introduction to the Business Federal Tax system. Coverage will include individual and corporate taxation as applied to deductions, losses, property transactions, tax computations and income recognition. Prerequisite: ACC 204.

ACC 425 Accounting Seminar Lec. 3. /Credit 3.
Objectives include enabling students to understand how accounting theory, standards and practices emerge, impact upon, and help to define the changing global technology. Students receive practice in selecting financial reporting standards which ethically meet the needs of industry, the capital markets, government agencies and other stakeholders in the economy. Current problems and their potential theoretical resolution are the subject of student research. Prerequisites: ACC 310, 415, 416.

ACC 426 Managerial Accounting Lec. 3. /Credit 3.
Accounting information for use in planning objectives and in controlling operations. A framework for measuring managerial performance as developed through an analytic treatment of cost behavior. Prerequisite: ACC 204.

ACC 494 Accounting Problems Lec. 3. /Credit 3.
Accounting problems pertinent to the CPA certification examination, the theory of accounting, review of auditing, tax and law problems peculiar to the CPA examination. Graded on an S/U basis. Prerequisites: ACC 310, 415, 416.

APS (Atmospheric and Planetary Sciences)

APS 101 Weather and Climate Lec. 3. /Credit 3.
Everyone is affected by the weather and climate. Dramatic uncontrolled events like hurricanes, tornadoes, blizzards, and heat waves often focus our attention. Other less dramatic, but important events like droughts, air pollution, and climate change also cause great concern. This course is designed to investigate many of these weather phenomena on a rational physical basis. This course satisfies the university general education core requirement in physical science.

APS 102 Natural Disasters Lec. 3. /Credit 3.
The Earth is a dynamic, sometimes violent home. From superstitions involving angry gods and inscrutable fish, humanity has progressed to a thorough understanding of the dramatic and sometimes deadly natural phenomena we are subject to. This course examines our physical understanding of these processes, our ability to forecast and mitigate them, and appropriate precautionary measures. Along the way we will explore basic geophysics, atmospheric physics, and planetary science topics. This course satisfies the university general education core requirement in physical science.

APS 105/PHY 205 Elements of Astronomy Lec. 3. /Credit 3.
An introduction to astronomy suitable for all students. The Earth in space. Seasons, orbits, the sun and planets. The history of the Earth and planets. NASA's exploration of the solar system with telescopes and spacecraft. Course includes evening observing with telescopes on campus. This course satisfies the university general education core requirement in physical science.

APS 106/PHY 206 Astronomy of Stars and Galaxies Lec. 3. /Credit 3.
Second semester to PHY 205. The sun and stars. Supernovas and black holes. The universe and its origin and evolution. The Big Bang theory and cosmic inflation. NASA's space telescopes. Course includes evening observing with telescopes at Turner Observatory. Prerequisite: PHY 205.

APS 303 Physical Meteorology Lec. 3. /Credit 3.
Topics include the weather and the properties of the Earth's troposphere. Some fundamental aspects of atmospheric atmospheric science such as scale heights, lapse rates, and hydrostatics are covered in this course. Corequisite: PHY 203 or permission of the instructor.

APS 304 Earth and Planetary Science Lec. 3. /Credit 3.
Geology and history of the planets of the solar system. The atmospheres of the Earth and planets, emphasizing Venus, Mars and Jupiter. The greenhouse effect and the ice ages. Recent discoveries involving planets orbiting other stars. Includes a student project involving atmospheric physics and computers. Prerequisite: MAT 130 or 151, PHY 201 or 203, Corequisite: PHY 202 or 204.

APS 307/PHY 307 Introduction to Space Sciences Lec. 3. /Credit 3.
Topics include thermospheres, ionospheres, magnetospheres, the sun, stellar atmospheres, solar wind, the influence of the sun on planetary atmospheres, and sun-earth connections. Prerequisites: PHY 202 or PHY 204, PHY 206, MAT 130 or MAT 151.

APS 345 Atmospheric Thermodynamics Lec. 3. /Credit 3.
Fundamental laws and concepts of thermodynamics and electro-magnetic radioactive transfer considered in an atmospheric context. Application of these principles to a number of meteorological problems, including climate models, the global energy balance, atmospheric aerosols, lidar/radar backscatter and remotely sensed temperature fields. Prerequisite: APS 303, MAT 130 or 151, PHY 202 or 204.

APS 351 Remote Sensing Lec. 3. /Credit 3.
The course describes the science of passive and active remote sensing and their application to the geosciences. Remote sensing applications to be discussed include climate change, atmospheric chemistry and dynamics, air and water pollution, land use, and seismic studies. Topics will include conception of an ill-posed problem, retrieval algorithms, error analysis, and data validation. Prerequisite: APS 345.

APS 399 Seminar Sem. 1./Credit 1.
A seminar class on a topic related to space, earth, and atmospheric sciences. Faculty, students and invited speakers will prepare and present material related to the topic. May be repeated for a total of up to 3 credits.

APS 401 Atmospheric and Planetary Sciences Research Lec. 3./Credit 3.
Students will perform geoscience research with a mentor. The student will be responsible for writing a short proposal on an atmospheric research project, gathering the necessary data, writing a short research paper, and presenting the research to their peers and interested faculty and staff at a departmental colloquium. Corequisite: APS 307, 350, 351 or CHE 509.

APS 410 Atmospheric and Planetary Sciences Data Analysis Techniques Lec. 3./Credit 3.
Probability and statistics applied to climatology and meteorology. Discrete and continuous probability distributions of meteorological variables examined. Regression analysis applied to satellite data. Smoothing and filtering processes. Introduction to time series analysis. Corequisite: APS 307, 350, 351 or CHE 509.

APS 411 Topics in Atmospheric and Planetary Sciences Lec.3/Credit 3.
A seminar class on a topic related to space, earth and atmospheric sciences. Faculty, students and invited speakers will prepare and present material related to the topic.

APS (Atmospheric and Planetary Sciences – Graduate Only)

APS 600 Atmospheric and Planetary Science Seminar Sem. 1./Credit 1.
A student must attend all presentations during the lecture series. A student must also give a presentation based on their research or a critical review of an important or controversial paper in the field of atmospheric or planetary sciences. This course will be graded as Satisfactory/Unsatisfactory, and may be repeated for a total of 3 credit hours.

APS 602 APS Comprehensive Exam Credit 1.
Satisfactory completion of this course documents successful completion of the APS written comprehensive exam. This course is graded as Satisfactory/Unsatisfactory.

APS 604 Principles of Planetary Science Lec. 3./Credit 3.
This course considers physical processes that determine the properties of planets, moons, asteroids, and comets within our solar system. Includes a survey of our solar system based on telescopic observations and spacecraft exploration, discussion of solar-system formation, orbital mechanics, planetary interiors, surfaces, atmospheres, and magnetospheres. Prerequisites: Undergraduate calculus and calculus-based physics.

APS 607 Magnetospheres and Plasmas Lec. 3./Credit 3.
This course examines the solar wind and interplanetary magnetic field and their interactions with planetary environments, especially Earth's, and with spacecraft. It includes discussions of space weather causes and effects, basic plasma physics, solar structure and variability, the terrestrial magnetosphere, spacecraft observations of space weather, and predictive capabilities. Prerequisites: Undergraduate calculus and calculus-based physics.
This course broadly covers the probabilistic and statistical techniques that are applied to climatology and meteorology. Key topics include: discrete and continuous probability distributions of meteorological variables, regression analysis applied to satellite data, smoothing and filtering processes, and time series analysis.

APS 610 Data Analysis and Techniques Lec. 3./Credit 3.
Students will perform geoscience research with a mentor. The student will be responsible for writing a short proposal on an atmospheric research project, gathering the necessary data, writing a short research paper, and presenting the research to their peers and interested faculty and staff at a departmental colloquium. Corequisite: APS 307, 350, 351 or CHE 509.

APS 645/PHY 745 Atmospheric Physics Lec. 3./Credit 3.
This course is a graduate level introduction to physical processes in the atmosphere. Key topics include: atmospheric thermodynamics; (the ideal gas law, equilibrium phase change,, thermodynamics of moist air; thermodynamic charts, and the hydrostatic stability of the atmosphere); cloud physics (nucleation of liquid droplets and ice crystals, the nature and sources of cloud condensation nuclei, particle growth, evaporation, and mechanics); atmospheric radiation (the sun and the solar constant, radiative heat balance of the atmosphere, greenhouse processes, and aerosol effects). .
Prerequisites: Undergraduate calculus, calculus-based physics, and undergraduate chemistry.

APS 646/PHY 746 Atmospheric Chemistry Lec. 3./Credit 3.
This course provides an overview of the physical and chemical interactions between sunlight and the Earth's atmosphere. Topics include: basic thermodynamics, kinetics, and photochemistry with applications to fundamental atmospheric chemical and physical systems. Prerequisites: Undergraduate calculus, calculus-based physics, and undergraduate chemistry.

APS 649/PHY 749 Atmospheric Radiative Transfer Lec. 3./Credit 3.
This course focuses on the quantitative description of how electromagnetic energy interacts with planetary atmospheres. Topics include: derivation of the equation of radiative transfer and its applications to nadir and limb geometries; scattering, absorption and emission processes; Earth radiation balance considerations; and Earth radiation budget satellite data studies. Prerequisite: APS 645.

APS 660/PHY 760 Introduction to Atmospheric Structure and Dynamics Lec. 3./Credit 3.
This course covers basic physical principles that shape the global atmospheric circulation and its seasonal variability. Emphasis will be placed on solving for simplified solutions of the equations that govern atmospheric structure and dynamics. Governing equations including the primitive equations, barotropic vorticity equation, and shallow-water equation will be introduced. Those equations will be solved for time-independent solutions (e.g., hydrostatic balance, geostrophic, cyclostrophic and gradient balance), and waves (e.g., inertial oscillation, gravity, Kelvin, and Rossby waves) to understand basic dynamical processes that shape planetary atmospheres. Prerequisites: Undergraduate vector calculus (equivalent of three semesters) and calculus-based physics.

APS 662/PHY 762 Geophysical Fluid Dynamics Lec. 3./Credit 3.
This course covers advanced topics of geophysical fluid dynamics that build on the methods covered in APS 660. Departure from time-independent and equilibrium solutions will be described by solving solutions to the quasi-geostrophic equation. Topics covered include: shear instabilities and turbulence in the context of quasi-geostrophic dynamics, and global meridional circulation in the context of Transformed Eulerian Mean dynamics. Prerequisite: APS 660.

APS 697 Research Credit 1-12.
Research on problems leading to a thesis or dissertation. A total of no more than 6 hours of
APS 697 research will be given a letter grade; all other credit hours will be graded as Satisfactory/ Unsatisfactory.

APS 698 Thesis Credit 1.
This course will be graded as Satisfactory/Unsatisfactory.

APS 699 Special Topics Lec. 3./Credit 3.

APS 700 Professional Writing and Presenting Lec. 1./Credit 1.
This course discusses technical writing and professional presentation including writing abstracts, extended abstracts, proposals, peer-reviewed papers, etc. and oral and poster presentations. This is a writing intensive course. For the final examination a student must give a 15-minute professional presentation open to the public on the student's research.

APS 702 APS Oral Qualifying Exam Credit 1.
Satisfactory completion of this course documents successful completion of the APS oral qualifying exam. This course is graded as Satisfactory/Unsatisfactory.

APS 704 Planetary Chemistry and Dynamics Lec. 3./Credit 3.
This course covers the basic processes that govern the evolution of planetary atmospheres and surfaces. Topics include: Fundamentals of atmospheric and surface chemistry applied to the planets of the Solar system; gas-phase, radiolytic, aerosol and surface-mediated chemical reactions; basic transport dynamics, atmospheric structure and mixing; observational techniques; past, present and future space missions; and extrasolar planetary observations.

APS 750/PHY 750 Atmospheric Measurements Lec. 3./Credit 3.
The course provides an overview of how the chemistry, physics, and structure of the atmosphere is observed and measured. Topics include: basic principles of atmospheric remote and in-situ sensing using satellite limb and nadir emission; solar occultation; lidar sounding; and in-situ sensing from aircraft, balloons, and rockets; and measurement error analysis methodology. Prerequisite: APS 649.

APS 797 Dissertation Research Credit 1-12.
Research on problems leading to a thesis or dissertation. A total of no more than 6 hours of APS 797 research will be given a letter grade; all other credit hours will be graded as Satisfactory/ Unsatisfactory.

APS 798 Final Oral Exam Credit 1.
This course will be graded as Satisfactory/Unsatisfactory.

ARA (Arabic)

ARA 101 Elementary Arabic I Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

ARA 102 Elementary Arabic II Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: ARA 101 or the equivalent.

ARA 201 Intermediate Arabic I Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: ARA 102 or the equivalent.

ARA 202 Intermediate Arabic II Lec. 3./Lab l./Credit 3.
A course discussing technical writing and professional presentation including writing abstracts, extended abstracts, proposals, peer-reviewed papers, oral and poster presentations, etc. This is a writing intensive course. For the final examination a student must give a 15-minute professional presentation open to the public on the student's research. The presentation must be considered acceptable by the instructor, the student's advisor, and a third independent reviewer in order for the student to pass the class. If the student's advisor and instructor are the same person, then another independent reviewer must be selected. The presentation must be accompanied by an extended abstract written during the course. The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: ARA 201 or the equivalent.

ARA 301-302 Oral and Written Expression I-II Lec. 3./Credit 3.
These courses are intended to refine students' proficiency of the Modern Arabic Language through the study of authentic works: newspapers, articles, literary works, media information, current events, other topics of interest. Focus is communicative.

ARA 303 Reading and Composition Lec. 3./Credit 3.
Exposes students to modern texts and essays.

ARA 304 Advanced Arabic Lec. 3./Credit 3.
Introduces students to the cultures and history of the Arabic speaking region. Students discuss areas such as politics, sociology, economics and history. Emphasis on expanding grammar, and vocabulary.

ARA 321 Topics in Arabic Prose Lec. 3./Credit 3.
Students will acquire knowledge of social, intellectual and political concerns through the study of the works of important writers, for example, Nagib Mahfonz, Taha Husein, and Ehsa Abd El Qudus.

ARA 404 Colloquial Arabic Dialect Lec. 3./Credit 3.
Introduces many dialects of the Islamic world. Emphasis on conversation.

ARA 440 Experiential Learning Lec. 3./Credit 3.
Can include study abroad, research abroad, domestic or international internships.

ARC (Architecture)

ARC 101 Introduction to Communication and Design Fundamentals Studio I Stu./Lec. 10./Credit 5.
Basic free hand and orthographic graphic drawing, three-dimensional modeling and verbal/written communication skills. Introduction to principles and theories of abstract design, conceptualization, and fabrication, with an emphasis placed on design analysis and "process of design." No prerequisite.

ARC 102 Communication and Design Fundamental Studio II Stu./Lec. 10./Credit 5.
Continues the development of graphic communication skills introduced in ARC. 101, utilizing traditional media and evolving digital media. The course serves as an introduction to principles and theories of basic architectural design, and organizational/spatial relationships. Various design determinants are considered, including environmental influences, material systems and sensory determinants. Prerequisite: ARC 101 for ARC 102 or permission of the faculty.

ARC 200 Architectural Ecology Lec. 3./Credit 3.
An investigation of topographic and climatic phenomena that influence building assemblies and environmental systems. Passive control systems from ancient and contemporary discoveries are examined for sustainable solutions to thermal comfort, lighting, hydrology and power. Prerequisites: ARC 101, 102.

ARC 201-202 Basic Architectural and Environmental Design Studio III & IV Stu./Lec. 10./Credit 5.
The focus on urban theory, buildings, and building patterns through physical documentation, drawings, models, and urban theory readings. Architectural design projects involving a variety of urban conditions. The course begins with small-scale structures that introduce basic tectonic issues and include site analysis and basic programming. ARC 202 projects increase in scale, complexity and level of detail. Studios include required field trips to various local, regional and national sites. Prerequisites: ARC 102 for ARC 201, ARC 200 and 201 for ARC 202 or permission of the faculty.

ARC 203 Theory and Practices of Representation I Lec. 3./Credit 3.
Overview of architectural representation media (theories, methods, and materials) used for documentation, analysis, visualization and presentation. Requires hands-on engagement for mastery of basic skills both in 2D and 3D with emphasis on the digital, and building a theoretical foundation. Prerequisites: ARC 101 and 102 or permission of the faculty.

ARC 204 Theory and Practices of Representation II Lec. 3./Credit 3.
Further development of architectural representational skills focusing on digital 3D modeling, parametric modeling, and building information modeling. Work generated will be of moderate complexity, at various scales and levels of resolution. Prerequisites: ARC 101, 102 and 203.

ARC 207 History of Architecture I Lec. 3./Credit 3.
The history and development of architecture, considered as a social, cultural and spatial expression from Prehistory to the Renaissance. No Prerequisite.

ARC 208 History of Architecture II Lec. 3./Credit 3.
The survey of architecture history, considered as a social, cultural and spatial expression of civilization from Renaissance through the 21st century. No Prerequisite.

ARC 213 Elements of Building Assembly Lec. 3./Credit 3.
An exploration into the substance of buildings and the manufactured scales of matter that affect architecture. The nature of common products for building are reviewed to reveal design requirements for the construction process. No Prerequisite.

ARC 301 International Travel Preparation Lec. 1./Credit 1
Presents an overview of the history (political, architectural, artistic and urban) and culture of the country to be visited in ARC 305. Course also includes some instruction in the language and customs of the country to be visited, urban analysis of cities to be visited, guidance on packing, documentation, and equipment for travel.

ARC 303 Intermediate Architecture Design Studio V Stu./Lec. 12./Credit 6.
Integration of material, systems and spatial elements of architectural design through projects of varying scales in the community context. Deepening understanding of site planning and tectonic issues. Prerequisites: ARC 101, 102, 200, 201, 202, 203, 204, 207, 208 and 213; MAT 118; PHY 201. Cumulative GPA of 2.3.

ARC 304 Intermediate Architecture Design Studio VI
Stu./Lec. 12./Credit 6.
Integration of material, systems and spatial elements of architectural design through projects of varying scales in the community context. Deepening understanding of site planning and tectonic issues. Prerequisites: ARC 101, 102, 200, 201, 202, 203, 204, 207, 208, 213, and 303; MAT, 118; PHY 201.

ARC 305 International Urban Travel StudioVII
Stu./Lec. 6./Credit 3.
An internationally based experience in design, theory, and the history of architecture and urbanism. Topics include theories of urban form, design in the historical context, architectural histories particular to location, the relation of architecture and urbanism to the social and cultural setting, and freehand drawing and sketching. Prerequisites: ARC 101, 102, 200, 201, 202, 203, 204, 207, 208, 213, 303, 317 and MAT, 118, PHY 201.

ARC 306 International Urban Travel Design Studio VIII
Stu./Lec. 6./Credit 3.
Urban design studio for a project studied while traveling. Students will work in collaboration to develop a proposal for a quarter of a city visited in ARC 305. Prerequisites: ARC 101, 102, 200, 201,202, 203, 204, 207, 208, 213, and 303; MAT 118; PHY 201.

ARC 309 Structures I Lec. 3./Credit 3.
A fundamental introduction to statics and strengths of material elements in architectural scenarios. Prerequisites: MAT 118 and PHY 201.

ARC 310 Structures II Lec. 3./Credit 3.
An applied study of natural and engineered wood products in framing systems for buildings (beams, columns, trusses and connections). Prerequisite: ARC 309, MAT 118 and PHY 201.

ARC 314 Building Assemblies Lec. 3./Credit 3.
An investigation of the diverse systems used to construct buildings with concentration on exterior envelopes for thermal, moisture and air control. Details and techniques are explored and represented with drawing conventions used for construction. Prerequisite: ARC 213.

ARC 315 Environmental Systems Lec. 3./Credit 3.
A fundamental introduction to the equipment and services required for interior environmental control and comfort. Basic requirements for HVAC, electricity, illumination, plumbing and acoustics in building design are examined. Prerequisite: ARC 200, ARC 213.

ARC 317 Global Theories of Urban Design
Lec. 3./Credit 3.
Overview of a variety of historical and contemporary issues in urban design and architecture from the theoretical and design perspective. Prerequisite: ARC 207 or 208.

ARC 405 Advanced Architectural Design Studio IX
Stu./Lec. 12./Credit 6.
Complex and contextual issues of a complete architecture design in the Urban setting with comprehensive consideration of site, orientation, environmental relationships and building systems. Prerequisites: ARC 101, 102, 200, 201, 202, 203, 204, 207, 208, 213,. 303, 304, 305, 306, 309 and 317; MAT 118; PHY 201.

ARC 406 Advanced Architectural Design Studio X
Stu./Lec. 12./Credit 6.
Continuation of ARC 405 project into construction documents including outline specifications and the design of structural and mechanical building systems, the use of building codes, an understanding of zoning and the principles of building programming. Prerequisites: ARC 101, 102, 200, 201, 202, 203, 204, 207, 208, 213,303, 304, 305, 306, 309, 317, 405 and MAT 118, PHY 201.

ARC 411 Contemporary Architectural Theory
Lec. 3./Credit 3.
Overview of the history of architectural thought and theories by looking at ideologies, process and synthesis, including post-colonialism, race, gender, subjectivity and ethics, in preparation for thesis research and design. Prerequisite: ARC 207, 208, 317.

ARC 414 Structures III Lec. 3./Credit 3.
An applied study of steel and reinforced concrete behavior in structural applications for buildings. The influence of wind and seismic activity are examined and regulated applications from building codes. Prerequisites: ARC 213, 309, 310, 314, 315 and MAT 118, PHY 201.

ARC 430 Individual Projects in Architecture Credit 1-5.
Research, reading and design in architecture or related subjects. Open to students at all levels. Prerequisite: Consent of instructor and chairperson. Either semester. Course may be repeated.

ARC 516 Building Systems Integration Workshop
Lec. 3./Credit 3
A workshop to exercise the order of building technology in architectural design. Applied scenarios are used to discover the cause and effects of form, comfort and safety. Co-requisite: ARC 405.

ARC 517-518 Professional and Community Design Practice I & II Lec. 3./Credit 3.
Principles of professional conduct, architect-client contractor relationships, construction contract documentation related to practice and procedures of an architectural office, as well as relationships to disciplines of engineering, planning and urban design, contemporary problems in architecture theory, ethics, emerging technological changes and professional responsibilities in field of architecture and community design. The second semester's work is concerned with the development of Construction Documents, including Specifications, Construction Drawings and Cost Estimates, and is closely related to the design studio work in ARC 406. Co-requisite: ARC 405 and ARC 406.

ARC 530 Individual Projects in Architecture Credit 1-5.
Research, reading and design in architecture or related subjects. Prerequisite: Graduate standing (Architecture Professional), or consent of chairperson. Course may be repeated.

ARC 601 Thesis Research Studio XI Stu./Lec. 10./Credit 6.
Self-directed inquiry articulated by the student around a specific claim, question, and/or position having clear architectural implications. The thesis research and proposal resulting from this effort is further elaborated in ARC 602. Prerequisites: AP standing. Cumulative GPA at least 2.5.

ARC 602 Thesis Design Studio XII Stu./Lec. 12./Credit 6.
Self-directed architectural inquiry based on the thesis research proposal articulated in ARC 601. Directed towards generating a personal and visionary interpretation of architecture. Prerequisites: AP standing.

ARC 617 Building Technology Issues Seminar
Lec. 3./Credit 3.
Examination of emerging technology in architecture focusing on materials, construction and building systems with global perspective. Requires intensive reading, speculative and critical writing, research, and drawing and diagramming for description, analysis, evaluation, and discussion. The seminar supplements thesis studio work. Prerequisites: AP standing. Co-requisite: ARC 601.

ARC 618 Community Design Issues Seminar
Lec. 3./Credit 3.
Exploration of contemporary issues in environmental and community design from a global perspective with emphasis on sustainability. Requires intensive reading, speculative and critical writing, and research for discussion. The seminar supplements thesis studio work. Prerequisites: AP standing. Co-requisite: ARC 602.

Summer Internship Non-Credit.
Community Design Practicum, 120 hrs. & 4 weeks minimum Supervised internship experience performing environmental design work. Preferred work site to be in community/urban design office or organization including housing corporations, housing authorities, community groups and/or private architecture practice with focus on community. Prerequisites: ARC 101, 102, 200, 201, 202,203, 204, 207, 208, 213, 303, 304, MAT 118, PHY 201.

ART (Art)

ART 200 Understanding the Arts Lec. 3./Online/Credit 3.
An orientation of cultural arts for the major/non-art major. Analysis, criticism, evaluation, and aesthetic considerations.

ART 215-216 Introductory and Intermediate Drawing
Stu. 4./Credit 2.
Basic principles of drawing, perspective, and design; development of technical skill in a variety of media. Landscape, human figure, still-life, and design. No previous art training necessary.

ART 224 Concepts in Color Lec. 3./Credit 3.
Introduction and development of the interaction of color as a medium in visual studies. Discussion of student work in process and aesthetic analysis within the context of theoretic and historic color procedures.

ART 300 Art Education Materials and Methods
Stu. 6./Credit 3.
Studies of various levels of child growth and development on the elementary aria secondary levels. Analysis and discussion of recent trends in Art Education. Approaches to creative ends via materials and methods of artistic endeavors.

ART 305 History Survey I (1) Lec. 3./Credit 3.
Illustrated lecture course covering chronological development of art from the prehistoric through Renaissance periods. Emphasis upon recognition of style and relationship of art to the age in which it was produced.

ART 306 Art History Survey II (2) Lec. 3./Credit 3.
History of art from Renaissance to the present day. Emphasis upon the recognition of style and relationship of art to the age in which it was produced.

ART 315 Introductory Painting Stu. 6./Credit 3.
Introduction to painting mediums (acrylic, oil, cra-pas) and the exploration of color theory through formal problems; theories and criticism. Prerequisite: ART 215 and ART 224.

ART 316 Intermediate Painting Stu. 6./Credit 3.
Advanced techniques and theories of painting are examined. Various materials are explored in the painting field; (i.e., mixed media, sculptural, and minimal painting.) Prerequisite: ART 315.

ART 317 Advanced Drawing Stu. 4./Credit 3.
Life drawing and continuation of introductory courses. Prerequisite: Art 215 and ART 216 or consent of instructor.

ART 325 Printmaking I Stu. 6./Credit 3.
Introduction to basic printmaking techniques and methods of printing. To include: monotype/ silkscreen and drypoint methods.

ART 326 Printmaking II Lec. 1./Stu. 6./Credit 3.
Introduction to development of basic and intermediate intaglio processes. Techniques to include: drypoint, etching, aquatint and softground/spitbite. Introduction to color process. Prerequisite: ART 325.

ART 327-328 Sculpture I and II Stu. 6./Credit 3.
Materials and techniques in the process of sculpture and three-dimensional design, including modeling, casting, and construction in wood and metal. Prerequisite: ART 327.

ART 330-331 Graphic Design I and II Stu. 6./Credit 3.
Introduction to design process, layout, paste-up mechanicals, typography and printing methods. Use of Apple Macintosh computer as a design tool. Prerequisite: ART 330 or consent of instructor.

ART 335-336 Ceramics I and II Stu. 6./Credit 3.
Elementary course in pottery with hand building and the potter's wheel. Students originate ceramic design and decorations. Demonstrations given in firing kiln and use of glazes. Prerequisite: ART 335 or consent of instructor.

ART 350 Photography I Stu. 6./Credit 3.
Introduction to photography. An introduction to the principles of technique and aesthetic understanding of the medium; visual vocabulary, exposure, developing, and printing. Camera and supplies needed.

ART 351 Photography II Stu. 6./Credit 3.
Advanced photography. Weighted towards refining and increasing technical, professional and visual awareness. Prerequisite: Photography I or consent of instructor. Purchase of supplies necessary.

ART 365 Methods and Materials in Elementary and Secondary Art Education Lec. 1./Stu. 6./Credit 3.
Methods and techniques used in organizing and conducting art activities. Emphasis on place of art in elementary and secondary school curriculum.

ART 367 Teaching Art in Secondary Schools Lec. 3./Credit 3.
Current theories and practices. Survey of current literature in art education.

ART 402 Illustration and Rendering Stu. 6./Credit 3.
The art of illustration as practiced in the fields of advertising, merchandising, book, story illustration, and scientific drawings. Studio techniques studied. Use of Apple Macintosh computer as an illustration tool. Prerequisites: ART 330 and 331.

ART 407 History of African American Arts Lec. 3./Credit 3.
A survey course of Black American Art.

ART 415 Advanced Painting Stu. 6./Credit 3.
Advanced work with problems of color on a two-dimensional surface. Prerequisite: ART 316 or consent of instructor.

ART 425 Printmaking III/Lithography Stu. 6./Credit 3.
Introduction to stone and metal lithographic techniques. Emphasis placed on personal style and technical development. Prerequisites: ART 325 and 326.

ART 426 Printmaking IV Photo Light Sensitive Techniques Stu. 6./Credit 3.
Photographic techniques in serigraphy, intaglio, and lithography. Prerequisite: None.

ART 430 Graphic Design III Stu. 6./Credit 3.
Advanced design for printed materials. Use of Apple Macintosh computer as a design tool. Prerequisites: ART 330 and 331.

ART 435 Advanced Ceramics III Stu. 6./Credit 3.
Continued work in materials and methods of advanced ceramics. Prerequisites: ART 335 and 336.

ART 450 Photography III Stu. 6./Credit 3.
Experimental photography. Experimentally structured course introducing several non-ordinary photographic processes. Prerequisites: ART 350 and 351.

ART 500 Senior Art Seminar Lec. 2./Credit 3.
Preparation for the individual senior exhibition which is required of all graduates. Exit examination, portfolios, presentations, publicity, etc. are required. The department reserves the right to select a work of art to remain in the permanent collection. Consent of department chair required.

ART 501-502 Special Project in Art Credit 1-4.
Individual projects in studio or art education selected by the student for advance investigation with the written approval of the chairperson; may not duplicate existing courses; may be repeated.

ART 511-512 Advanced Study in Art History Credit 1-5.
Individual studies selected by the student. Library research and. bibliography training.

ART 513-514 Individual Creative Problems in Art Education Credit 3.
Research problems to be selected by the student. Emphasis on research methods and art techniques. Workshop methods.

AVN (Aviation)

AVN 151-152 Aviation Seminar I & II Lec 1./Credit 1.
This is a two semester course required for all Aviation majors. Its purpose is to prepare new students for the university experience and success in the Aviation program by discussing students' responsibilities, career opportunities, writing for the Aviation industry, and the use of productivity technology.

AVN 153 Aviation Foundations I Lec. 3./Credit 3.
Provides an overview of aviation, and introduces students to the many opportunities and challenges of the profession. The course covers the fundamentals of flight aerodynamics and technology, and an introduction to aircraft systems and operations. Also, safety of flight, human factors, aeronautical chart interpretation, basic navigation, an introduction airspace, and aviation weather factors are covered.

AVN 154 Aviation History Lec. 3/Credit 3.
Provides the history of aviation through an in-depth study of flight and focus on the development of civil, commercial, and military aviation. The course covers noteworthy events and people throughout aviation history from the first flight through present day developments.

AVN 162 Private Pilot Ground School Lec. 3./Credit 3.
Preparation for the successful completion of the Federal Aviation Administration's Private Pilot written and practical examinations. Includes flight maneuvers, practical test standards, flight environment procedures, general aviation aircraft systems, practical navigation and weather, air traffic control communications, and Federal Aviation Regulations. Co requisite: AVN 163.

AVN 163 Private Pilot Laboratory I Lab 8./Credit 1.
First of a two-semester flight laboratory, which includes dual flight instruction in basic private pilot maneuvers, solo flight, introduction to cross-country navigation, pre-flight procedures, pilot decision-making, and safety. Students must acquire a minimum of 25 flight hours and complete a solo flight. Flight fees: approximately $5000.

AVN 164 Private Pilot Laboratory II Lab 8./Credit 1.
Second of a two-semester flight laboratory, which includes dual flight instruction in advanced private pilot maneuvers, cross country navigation, competency in communicating with air traffic control, flight planning. Students must pass the Federal Aviation Administration's Private Pilot flight examination and receive appropriate certification. Flight fees: approximately $7000.

AVN 170 ATC Foundations Lec 3./Credit 3.
This course is a progressive foundational introduction to air traffic control. It focuses on the interpretation of the FAA orders and regulations that govern the air traffic control system, roles and responsibilities of control positions, concepts of spacing, sequencing, and separation, visual and radar traffic patterns, communication, terminology, and principles of ATC procedures.

AVN 181 Introduction to Airport Systems Lec. 3./Credit 3.
A foundational study of airport operations and systems and includes analysis of the role of the airport manager in planning, finance and administration, public relations, social, political, and environmental considerations, operational requirements and facility maintenance.

AVN 201 Flight Safety Lec. 3./Credit 3.
Factors and procedures relating to aviation safety, techniques for accident prevention, procedures used in accident investigations, the human factors (physiological and psychological), the effect of weather, mechanical and maintenance issues, mid-air collisions, and runway incursions.

AVN 251-252 Aviation Seminar III & IV Lec 1./Credit 1.
This is a two semester course required for all Aviation Management majors. Its purpose is to prepare students to technical writing for research in Aviation. This course will introduce students to research methodology and design, proposal preparation, data gathering and source documentation.

AVN 253 Aviation Foundations II Lec. 3./Credit 3.
Provides a continuation overview of aviation, and expands students' overview to the many opportunities and challenges of the profession. The course includes a review of modern and current aviation, fundamentals of flight aerodynamics and technology, and an introduction to aircraft systems and operations. Also, safety of flight, human factors, aeronautical chart interpretation, basic navigation, an introduction to air traffic control and airspace, and aviation weather factors are covered.

AVN 254 Crew Resource Management Lec. 3/Credit 3.
Techniques for enhancing teamwork, interpersonal communications and relationships, leadership, and coping strategies in the professional aviation environment. Included are the recognition of human behavior that affects the safety of aviation operations, such as anger, stress, and fatigue, and the strategies to handle those behaviors.

AVN 265 Instrument Ground School Lec. 3./Credit 3.
Preparation for the FAA Instrument written examination. Includes concepts and procedures of instrument and weather flying, IFR procedures and FAA regulations, radio navigation, and instrument approaches.

AVN 267 Instrument Rating Laboratory I Lab 8./Credit 2.
Flight instruction in preparation for completion of requirements for the FAA Instrument Rating. Includes attitude instrument flying, basic instrument flight patterns, partial panel, VOR procedures, DME arcs, GPS and ADF procedures, localizer tracking and holding. Corequisite: AVN 265. Flight fees: approximately $5000.

AVN 268 Instrument Rating Laboratory II Lab 8./Credit 2.
Flight instruction in preparation for completion of requirements for the FAA Instrument Rating. Includes: VOR/VOR-DME approaches, GPS and ADF approaches, localizer and ILS instrument approaches, cross-country procedures and emergencies, maneuvers review and FAA Practical Test. To successfully complete this laboratory, the FAA Instrument Rating must be earned. Flight fees: approximately $5000.

AVN 271 Terminal Radar Operations I w/lab
Lec. 3./Lab 2./Credit 5.
Fundamental terminal operations utilizing radar procedures and equipment. Includes control and separation of aircraft in the terminal area with emphasis on the safe, expeditious flow of arriving and departing traffic transitioning between enroute centers and the control tower environment. Also the significance and use of Low and High Altitude Enroute Charts and Approach Procedures and the hemispheric cruising altitude rules. Utilizes radar air traffic control simulators by which students will apply their knowledge, skill, and understanding of terminal procedures. Lab fee $250.

AVN 272 Tower Operations I w/lab
Lec. 3./Lab 2./Credit 5.
This course thoroughly covers air traffic control tower procedures, phraseology, aircraft separation on same and intersecting runways, airport traffic patterns, aircraft recognition, and control tower positions, responsibilities, and equipment. Laboratory simulations utilizing an airport layout and control tower cab mockup to support fundamental tower operations comprising taxi, takeoff and landing of aircraft. Includes phraseology, procedures, and separation of aircraft flying under visual conditions. Lab fee $250.

AVN 281 Airport Operations I Lec. 3./Credit 3.
This course is a comprehensive study of airport landside operations. Topics covered are airport operating categories, understanding the role of terminal and passenger area security, FAA regulations and inspection programs including PART 139, Airport Certification Manual, and TSA. This course includes a focus on airport communication and business operations.

AVN 282 Airport Operations II Lec. 3./Credit 3.
This course is a comprehensive study of airport airside operations. Topics covered are airfield inspection programs, snow removal, airfield security, environmental factor affecting airports, wildlife control, and pavement maintenance in accordance with appropriate regulations. This course includes practical application of airfield functions.

AVN 290 Introduction to Unmanned Aircraft Systems
Lec 3./Credit 3.
An introduction to the fundamentals of unmanned aircraft systems (UAS), including their developing role in the modern aviation industry. Topics include an introduction to structural elements, avionics, flight control and guidance systems, navigation, remote sensing, human factors and integration into commercial and military airspace. Emphasis is on future employment in the field with a focus on commercial airspace.

AVN 351-352 Aviation Seminar V-VI Lec 1./Credit 1.
This is a two semester course required for all Aviation Management majors. This course includes active engagement aviation research and an in-depth involvement in research methodology and design, data gathering techniques, data analysis, and technical writing.

AVN 353 Aviation Management Lec. 3./Credit 3.
A holistic view of management requirements and techniques applicable to the aviation industry; problems, current issues and future trends related to aviation operations. Includes management and organizational styles as applied to the industry, changes in the National Airspace System, managerial problems unique to the industry, and proposed acquisition of equipment under the Capital Investment Plan.

AVN 354 Aviation Legislation Lec. 3./Credit 3.
This course is a survey of legal concepts concerning aviation as related to operation, contracts, insurance and liability, regulating statutes, and case law. Topics include tort law, FAA regulation, and commercial/business law relative to the aviation industry.

AVN 356 Air Transportation Lec. 3./Credit 3.
Survey of historical developments of and current issues within the air transportation system covering facilities, impact of regulations, problems encountered in commercial air transportation, future requirements, airline operations, economics, and social implications.

AVN 361 Commercial Pilot Ground School
Lec. 3./Credit 3.
Preparation for the FAA Commercial Pilot written exam and Commercial Pilot Certification. Includes advanced aerodynamics, aircraft performance, precision maneuvers, extended cross-country and night flight, FAA regulations, introduction to advanced systems, and transition to more sophisticated aircraft.

AVN 363 Commercial Pilot Laboratory I Lab 8./Credit 2.
Flight instruction in preparation for FAA Commercial Pilot Certification. Includes: maneuvers and landings review, introduction to complex airplanes, commercial performance flight maneuvers, cross-country navigation review, day and night solo cross country navigation, and instrument review. A total of 60 flight hours should be flown to complete this laboratory.

AVN 364 Commercial Pilot Laboratory II Lab 8./Credit 2.
Flight instruction in preparation for FAA Commercial Pilot Certification. Includes advanced aerodynamics, aircraft performance, precision maneuvers, extended cross-country and night flight in complex airplanes, FAA regulations, introduction to advanced systems, and complex maneuvers review in preparation for the FAA practical (flight) check. To successfully complete this laboratory the FAA Commercial Pilot Certificate must be earned.

AVN 365 Commercial Pilot Laboratory III Lab 8./Credit 1.
This flight laboratory is for students who are entering a military flight-training program after graduation. The lab includes: maneuvers and landings review, and FAA qualification in complex airplanes. A complex aircraft logbook endorsement by an authorized instructor and a minimum of 10 flight hours in complex aircraft must be flown to complete this laboratory.

AVN 371 Terminal Radar Operations II w/lab
Lec. 3./Lab 2./Credit 5.
This course prepares students for advanced terminal operations utilizing radar and non-radar procedures and separation. It includes emergency radar procedures, operations within Class B and C airspace, simultaneous parallel runway operations, and the utilization of the more complex airspace around larger airports and satellite airports. Students will complete advanced laboratory simulations in support to apply knowledge and understanding of complex radar procedures, and the ability to safely control traffic in a terminal environment. Lab fee $250. Prerequisite: AVN 271

AVN 372 Tower Operations II w/lab
Lec. 3./Lab 2./Credit 5.
Advanced Tower course with an emphasis on local control complexity. Topics include but are not limited to phraseology, emergencies, special flights, and traffic patterns. Students will complete advanced laboratory simulations in support to apply knowledge and understanding of complex tower procedures. Lab fee $250. Prerequisite: AVN 272

AVN 381 Airport Finance Lec. 3/Credit 3.
This is designed to improve students' understanding of the air transportation system, and analyze current financial industry trends and how they impact an airport. Students will examine the importance of implementing strong management control systems and learn how to successfully forecast your business and evaluate the benefits of efficient customer service and how it relates to a successful pricing strategy. Topics include, assessing financial performance and forecast demand, managing shareholder relations, privatization and restructuring options, the needs of customers, and the industry's financial trends and their impact on strategy and operations.

AVN 382 Airport Planning Lec. 3/Credit 3.
A managerial level course focused on the principles of airport planning with emphasis on federal, state, and municipal interactions. This course covers essential elements of current airport planning trends, including airport master planning and layout plans, financial sustainability, and environmental planning, such as hazardous wildlife issues, airport noise, and compatible land use. Students will be introduced to the organizational, political, and financial administration of public and private civil use airports.

AVN 394 Homeland Security Lec 3./Credit 3.
This course focuses on the consolidation of responsibilities and functions across agencies, at various jurisdictional levels, that have the charge of mitigating hostilities, threats, hazards, and consequences. This course is designed to develop analytical skills that will prepare students to identify, evaluate and resolve complex policy issues and initiate practical actions in the aviation industry.

AVN 450 Crew Resource Management II Lec. 2./Lab 2./Credit 3.
This course is a survey of advanced strategies for the use of controller resources and communications abilities in an air traffic control environment. Students will demonstrate their abilities to fully use the human and hardware resources available to them. The course presumes technical proficiency and focuses on the interactive skills necessary to be a successful controller. Includes identification of available crew resources, effective resource management strategies, teamwork, leadership and managerial skills. Emphasis is placed on coping with specific controller-controller, supervisor-controller, and controller-pilot scenarios and transferability of these skills to the workplace. Prerequisite: permission of the instructor and physical ability.

AVN 451 Cooperative Work Study Credit 3-12.
This a work study program under the agreement with an organization within the aviation industry. Students must meet eligibility requirements and be recommended by the Department Chair.

AVN 452 Airline Operations Lec. 3./Credit 3.
A managerial-level course centering on expertise required for airline operations, including flight dispatching, high altitude weather, crew teamwork, high altitude operations, crew and passenger safety, and high density airport operations. The course is designed for students intending to seek flight or ground career opportunities within the airline industry.

AVN 453 Special Topics in Aviation Lec. 3./Credit 3.
A treatment of advanced topics of interest in aviation not routinely covered by existing courses. May be repeated when topics vary. Prerequisite: Permission of the department chair and course instructor.

AVN 454 Senior Practicum/Capstone Sem./Prj./Credit 3.
Designed as a capstone course for all aviation courses of study. Emphasis will be placed upon participating in an assessment designed for the student's area of study which may include any or all of the following: comprehensive oral and/or written examination, comprehensive project, FAA or other industry certification, independent research project, or assigned by academic adviser and approved by department chair.

AVN 455 Aviation Research Sem./Prj./Credit 3-6.
Designed as an advanced study course for students serving as research assistants or awarded research scholarships. Emphasis will be placed upon participating in an independent research project with a designated research mentor. The student will produce a publication quality research report or thesis. Prerequisite: Consent of the research mentor and approved research proposal.

AVN 461 Certified Flight Instructor Ground School Lec. 3./Credit 3.
This course is preparation for the FAA Flight Instructor Certificate. Topics include flight instruction methodology, instructor responsibilities, and flight maneuvers necessary for instructing private and commercial students.

AVN 462 Certified Flight Instructor (Instrument) Lec. 3./Credit 3.
Preparation for the FAA Instrument Flight Instructor Certificate. Includes presentation of methodology used in teaching instrument flight. Prerequisites: AVN 465 and 466

AVN 463 Advanced Aircraft Systems Lec. 3./Credit 3.
In-depth discussion of electrical, mechanical, hydraulic, environmental and electronic systems on aircraft, design and performance standards, capabilities and limitations, and conformance to FAA specifications. Includes crew concept procedures, cockpit resource management, and emergency procedures

AVN 464 Advanced Aerodynamics and Aircraft Performance Lec. 3./Credit 3.
Advanced theories of flight and flight factors, including air-foil shape, drag, velocity, lift and thrust, stability and control; advanced principles of performance, including capabilities and limitations, performance and design criteria, load factors, weight and balance charts, comparative analysis of aircraft, and certification of aircraft.

AVN 465-466 Certified Flight Instructor Laboratory I & II Lab 8./Credit 1.
This is a two semester flight lab course to prepare students for the FAA Flight Instructor Certificate examination. Topics include flight instruction methodology, instructor responsibilities, lesson plan development and presentation, and flight maneuvers necessary for instructing private students.

AVN 467 Certified Flight Instructor (Multiengine) Lec. 3./Credit 3.
Classroom instruction in preparation for the FAA Multi Engine Flight Instructor Certificate. Includes principles and methodology of teaching multi engine flight.

AVN 469 Certified Flight Instructor (Multiengine) Laboratory Lab 4./Credit 1.
Flight instruction in preparation for the FAA Multi Engine Flight Instructor Certificate. Includes principles and methodology of teaching multi engine flight.

AVN 470 Air Traffic Management Lec 3./Credit 3.
This course introduces students to the increasing complexity of the Air Traffic Management environment, which relies on the cognitive functions of air traffic controllers. Topics covered include but are not limited to NextGen technologies, cognitive engineering, digital communication, safety organization and human error detection.

AVN 471 ATSA Prep Lec.1./Credit 1.
This course prepares air traffic control students for the Air Traffic Skills Assessment (ATSA) test. The ATSA test is a pre-employment screening required for all air traffic control applicants looking to be hired by the FAA. This course consists of training modules that provide students with the cognitive strategies necessary to take the test. This course is designed for those students who wish to pursue a career as an air traffic controller with the FAA and should be taken as close to graduation as possible.

AVN 480 Airport Design Lec. 3/Credit 3.
A managerial level course focused on the principles of airport design. This course covers essential elements of airport design trends, including geometric design and layout of the airfield and terminal facilities, obstruction analysis, signage and lighting, forecasting, airside and landside interface, and capacity and delay effects. This course also focuses on environmental design issues, such as local wildlife habitats and hazards, noise abatement issues, and land use. Students will study the airport design elements as they relate to safety and security, economic impacts of airport operations, airport performance standards, and current political trends and issues of direct concern to airport operations such as regulations of the Department of Homeland Security, the Transportation Security Administration, and the Federal Aviation Administration.

AVN 481 Concepts of Air Transportation Utilizations Lec. 3./Credit 3.
This course is a study of factors involved in the effective utilization of aircraft in the transportation of passengers and cargo, including aircraft design and cost effectiveness, operational and marketing consideration, depreciation and suitability.

BAN (Band)

BAN 101 Major Ensemble-Marching Band (1) Credit 1.
Marching Band is offered in the Fall semester for one hour of academic credit. This organization performs at all home football games, selected away games, and at various parades and concerts. Performance auditions are used as a means of placement within the ensemble.

BAN 111 Major Ensemble-Symphonic Winds (2) Credit 1.
Symphonic Winds is offered in the Spring semester for one hour of academic credit. This organization performs at various concerts in the area and around the country. Membership in this ensemble is achieved by successful completion of an audition and/or by permission of the instructor.

BAN 112 Major Ensemble-Concert Band (2) Credit 1.
Concert Band is offered in the Spring semester for one hour of academic credit. This organization performs on campus. Performance auditions are used as a means of placement within the ensemble. Music majors are recommended to participate in this ensemble by performing on a minor instrument.

BIO (Biology)

BIO 101 Nature of Life Lec. 3./ Credit 3.
A non-major course in biology wherein fundamental processes and mechanics of living things are discussed within the framework of a unified theory of life. Special emphasis will be given to topical themes that relate biological principles to contemporary issues in science, technology and society. Prerequisites: None.

BIO 102 Introduction to Molecular Biology Lec. 3./ Credit 3.
This course is designed to introduce students to the study of structure, organization and function in living matter at the molecular level. Prerequisites: None.

BIO 103 General Biology Lec. 3./Lab 2./ Credit 4.
This is an introductory course designed for students not majoring in biology. Emphasis will be given on principles, methods of inquiry, survey of the actively expanding sub disciplines of modern biology, especially cell biology, genetics, molecular biology, evolution, and ecology. The general biology laboratory will provide hands-on activities to emphasize concepts taught in the lecture portion of the class. Prerequisites: None.

BIO 104 Laboratory in Molecular Biological Techniques Lab 6./ Credit 3.
Introduction to techniques designed to familiarize the student with some of the current research in molecular cell biology. Participation in research projects in collaboration with the faculty supervisor. Prerequisites: None.

BIO 105 Introduction to Biology I Lec. 3./ Lab 2./ Credit 4.
A lecture course that will introduce students to the concepts of cellular and molecular biology including general chemistry concepts, chemistry of macromolecules, cell structure and function, cell membrane, cell cycle and mitosis, DNA replication, transcription, translation, recombinant DNA technology, enzymes, respiration, and photosynthesis. The introduction to biology I laboratory, will introduce students to the principles and techniques utilized to study cells and macromolecules. Topics may include pipetting, making solutions, microscopy, cell structure, cell function, molecular biology, polymerase chain reaction, and gel electrophoresis. Prerequisites: None.

BIO 106 Introduction to Biology II Lec. 3./ Lab 2./ Credit 4.
Introduction to the nature of science, evolution, ecology, organismal biology, and population genetics. The introduction to biology laboratory II, will emphasize student-based inquiry, data collection and management as well as science communication. Included are case studies, computer simulation, and analysis. Prerequisites: None.

BIO 110 Freshman Biology Seminar Sem./ Credit 1.
This seminar course is designed for freshman-level biology majors. It will provide an introduction to diverse career paths. Students will also develop their individual development plans, scientific resumes and a draft of their personal statements. Open to all majors.

BIO 191 Introduction to Research Topics in the Biological Sciences Sem./ Prj./ Credit 1-3.
Designed for freshman-level undergraduates. Emphasis will be placed upon introduction to areas of biological sciences research, regular attendance at appropriate seminars, techniques of literature searches, and background study. This course may be taken twice.
Prerequisite: Consent of the department chairperson.

BIO/SOC 200 Biological and Sociological Aspects of Drug Usage Lec. 3./ Credit 3.
An interdisciplinary study of the problem of drug abuse in contemporary society. Primary emphasis on (1) biological effects on the individual (physiological, genetic and evolutionary implications); and (2) psychosocial factors related to the problem in the University and the community at-large. Prerequisites: None.

BIO 201-202 Analysis and Application of Scientific Information I-II Lab 2./ Credit 1.
A two-semester course designed to develop quantitative reasoning and critical thinking skills by focusing on strategies necessary to effectively analyze diverse problem types. The course will specifically address the analysis of scientific information and its applications. Activities will include discussions, laboratories, and enrichment workshops. Prerequisite: MAT 117 and BIO 103 or BIO 105 and 106.

BIO 203 Intermediate Biology Seminar Sem./ Credit 1.
This seminar course is designed for sophomore level biology majors. It will feature various workshops designed to provide professional development skills such as resume building, personal statement preparation, preparation for standardized tests, critical thinking, mentor/mentee relationship, summer internship preparation, ethics, and introduction to diverse career paths.
Open to all majors.

BIO 210 General Botany Lec. 3./Lab 3./Credit 4.
General principles of plant life; primary emphasis on the morphology, physiology, genetics, evolution, economics uses, and ecology of plants. Laboratory studies will focused on supplementing lecture themes within the context of orgainial research and service-based projects. Prerequisite: BIO 103 or BIO 105 and BIO 106

BIO 211 Research Design Lecture. Credit 3.
This course will include practice in elements of the scientific method, quantitative reasoning, problem-solving skills; scientific ethics and values; different kinds of research designs, including experiments, surveys, observational and comparative studies; basic statistics and graphing; critical analysis and writing of scientific publications. Prerequisite: Bio 105, Bio 106, Mat 205 or equivalent.

BIO 220 General Zoology Lec. 3./ Lab 3./ Credit 4.
Basic principles of animal biology with particular emphasis on morphological, physiological, development, and ecology, and evolutionary relationships of the major animal groups. Laboratory includes microscopy and dissection of representative specimens of major animal groups as it relates with a focus on CURE project (s)
Prerequisite: BIO 103 or BIO 105 and 106.

BIO 224-225 Anatomy and Physiology Lec. 3./Lab 2./Credit 4.
A two-semester course which deals with essentials of human anatomy in relation to functions of the organ systems.
Prerequisite: BIO 103 or BIO 105 and BIO 106.

BIO 291 Basic Research Topics in the Biological Sciences Sem./ Prj./ Credit 1-6.
Designed for sophomore-level undergraduates. Emphasis will be placed upon introduction to basic techniques of conducting research and literature review, regular attendance at selected seminars, and directed work on a research project in biological sciences. This course may be taken twice. Prerequisite: Consent of the research mentor.

BIO 300 Cooperative Work-Study Credit 4-8.
A course integrating subject matter of a biological nature with practical work experience in an approved agency. Course substitutions must be approved in advance by the department.
Prerequisite: completion of sophomore level or consent of the department chair.

BIO 301 Comparative Anatomy Lec. 2./ Lab 4./ Credit 4.
Biological principles of vertebrate animals (primarily excluding man) presented in a comparative study of their morphology, development, functional adaptations, and phylogenetic ascension.
Prerequisite: BIO 220.

BIO 302 Human Anatomy Lec. 2./ Lab 4./ Credit 4.
Study of development and structure of organs and organ systems of the human body with some emphasis upon their functional adaptations. Prerequisite: BIO 105 and BIO 106 or consent of department chair.

BIO 304 General Microbiology Lec. 3./ Lab 3./ Credit 4.
General survey of morphology, taxonomy, and physiology of bacteria and related microorganisms. Prerequisites: BIO 105 and BIO 106; CHE 202.

BIO 305 Principles of Heredity Lec. 2./ Lab 2./ Credit 3.
Fundamentals of genetics. Nature, transmission, and function of genetic material; application of these principles to problems in development, evolution, and human society. Prerequisites: BIO 105 and BIO 106; CHE 202.

BIO 306 Plant Physiology Lec. 2./ Lab 4./ Credit 4.
Functional aspects of plant life; primary emphasis on the effects of chemical and physical factors on the growth and development or selected plants. Prerequisites: BIO 210 and CHE 202.

BIO 307 Evolution and Systematics of Lower Plants
Lec. 2./ Lab 4./ Credit 4.
Survey of algae, fungi, and bryophytes, with some consideration of their phylogenetic relationships; special emphasis on nutrition, genetics, growth, and morphogenesis of algae and fungi. Prerequisite: BIO 210.

BIO 308 Vertebrate Morphogenesis
Lec. 2./ Lab 4./ Credit 4.
Microscopic and gross structure of vertebrates, including human organism, interpreted in terms of developmental processes. Emphasis upon histogenesis and organogenesis in studying structural and functional adaptations of organ systems. Prerequisite: BIO 220.

BIO 309 Cancer Epidemiology Lec. 3/ Credit 3.
This course will cover foundations of epidemiology, historic developments in epidemiology, practical disease concepts in epidemiology, descriptive epidemiology, general health and population indicators, cancer biology and statistics, and ethics approval process. Prerequisite: One semester of an introductory statistics course or consent of instructor and department chair.

BIO 311 Biotechnology Explorations Lab. 3/ Credit 3.
A laboratory course focused on current techniques to investigate cellular and molecular processes. The course is designed to provide hands-on laboratory experience which will facilitate student comprehension of the theories behind various lab techniques and enhance student investigational research preparedness.
Prerequisite: BIO 105, CHE 201 and 202.

BIO 312 Molecular Biology Lec.3/ Credit 3.
This course will cover structure and function of nucleic acids, DNA replication, chromatin structure, gene expression and regulation, epigenetic factors and general recombinant DNA methodology. Emphasis of this course will be on discussing and critically analyzing classic and current scientific papers. Prerequisite: BIO 105, BIO 106 and CHE 202

BIO 336 Human Physiology Lec. 2./ Lab 3./ Credit 3.
Intricate functions of the human body, stressing principles of homeostasis and maintenance of normal health and well-being.
Prerequisites: BIO 105 and BIO 106, CHE 201 and 202 or consent of department chair.

BIO 391 Intermediate Research Topics in the Biological Sciences Sem./ Prj./ Credit 1-9.
Designed for junior level undergraduates. Emphasis will be placed upon conducting directed research in biological sciences with a designated research mentor, regular attendance at selected seminars, and review of basic literature search techniques. This course may be taken twice. Prerequisite: Consent of the research mentor.

BIO 400/ MES 450 General Marine Biology
Lec. 2./ Lab 3./ Credit 3.
Introduction to marine biology, including survey of representative animal and plant populations, and analysis of environmental factors related to marine productivity. Prerequisites: BIO 210 and 220.

BIO 402 Principles of Neurobiology Lec.3/ Credit 3.
This lecture course will cover fundamental concepts of neurobiology. Topics will include structure and function of cell types and selected regions of the central nervous system, ion channels, action potentials, synaptic transmission, synaptic development, and synaptic plasticity. Additional topics may include electrophysiology, disorders of the nervous system, drug addiction, and/or learning and memory. Prerequisite: BIO 336.

BIO 403 Developmental Plant Anatomy
Lec. 2./ Lab 2./ Credit 3.
Study of cellular and tissue differentiations; special emphasis upon role of genetic and environmental factors in developmental processes of representative vascular plants. Prerequisites: BIO 210.

BIO 404 Techniques in Molecular Genetics
Lec. 2./ Lab 2./ Credit 3.
Introduction to the techniques typically used in molecular genetics such as DNA and RNA isolation, gene cloning, restriction enzyme analysis, gene sequencing, and others. Consideration will be given to the theory and application of the techniques. Prerequisite: BIO 305.

BIO 405 Topics in Molecular Biology Lec. 2./ Credit 2.
This course will examine selected topics that are the focus of current research and/or recent publications in biology. A lecture or seminar format may be used. Topics to be discussed will vary from year to year. Prerequisite: BIO 304 and BIO 305.

BIO 406 Developmental Genetics
Lec. 2. /Lab 3./ Credit 3.
Study of the action and regulation of genes and gene products in development and differentiation. Microbial, botanical and animal (including human) examples will be considered. Emphasis on biochemical and molecular aspects of mechanisms controlling gene expression in eukaryotic cell differentiation. Prerequisite: BIO 305.

BIO 407 Special Projects Prj./ Credit 2-4.
Introduction to problems on special phases of biology.
Prerequisites: Advanced standing and consent of instructor.

BIO 408 Research Problems Credit 1-6.
Participation in research projects in collaboration with a faculty supervisor, or on an original, independent research problem. Prerequisite: Advanced standing and consent of instructor.

BIO 409 Developmental Biology Lec.3/ Credit 3.
This advanced undergraduate level lecture/ literature discussion and hands on course covers the current understanding of the molecular mechanisms that regulate animal development. Evolutionary mechanisms are emphasized as well as the discussion of relevant diseases. Vertebrate (mouse, chick, frog, fish) and invertebrate (fly, worm) models are covered. Specific topics include formation of early body plan, cell type determination, organogenesis, morphogenesis, stem cells, cloning, and issues in human development. Prerequisite: BIO 305 or BIO 406.

BIO 410 Molecular Biology of Plants
Lec. 2./ Lab 3./ Credit 3.
This course is designed to introduce techniques in molecular biology using plants as experimental organisms. The primary objective is to familiarize the student with current research in molecular cell biology which have led to significant discoveries, molecular techniques that are changing experimental biology in the area of plant molecular biology, and the genetic machinery and its regulation with regards to structure and function of cell organelles and of specialized cell proteins, through experimental and/or investigative participation. Some emphasis is placed on classical botany and plant physiology with regard to plant development and cell culture techniques. Prerequisites: BIO 210, BIO 306, CHE 303.

BIO 412 Gene Expression and Control
Lec. 3./ Lab 2./ Credit 3.
Examination of DNA structure and function, including DNA replication, transcription, translation, recombination and repair. Emphasis will be on gene expression and regulation in both prokaryotic and eukaryotic cells. Students will also be introduced to general recombinant DNA methodology in the laboratory and through studying current and classic scientific papers. Prerequisite: BIO 305, BIO 312, and CHE 201 and 202.

BIO 413 Senior Seminar Sem. 1./Credit 1.
Reports, study, and discussion of current literature in the field of biology. Prerequisite: Graduating senior status.

BIO 415 Fundamentals of Cell Biology Lec.3./ Credit 3.
Study of cell structure and function in prokaryotes and eukaryotes emphasizing membrane trafficking protein sorting and transport, signal transduction, cell cycle regulation, apoptosis and classic and current cancer development. Discussion of classic and current papers. Prerequisite: BIO 305 and BIO 312.

BIO 416 Biology of Aging Lec. 2./Credit 2.
A seminar-research course focusing on biological and medical aspects of aging in individuals. Prerequisites: BIO 105

BIO 420 Evolution and Systematics of Flowering Plants
Lec. 3./ Lab 3./ Credit 4.
This course includes the integration of taxonomy (identification, nomenclature, and classification emphasizing flowering plants), evolution (speciation, reproductive biology, adaptation, convergence, and biogeography) and phylogenetics (phenetics, cladistics, morphology and molecules). The laboratory emphasizes representative families and genera of flowering plants in Virginia through the use of keys, manuals, and plant collections. Prerequisite: BIO 210.

BIO 422A Microtechnique I Lab 4./ Credit 2.
Laboratory course in methods of preparing animal materials for microscopic study. Prerequisites: BIO 210 and 2*20.*

BIO 422B Microtechnique II Lab 4./ Credit 2.
Laboratory course in methods of preparing plant materials for microscopic study. Prerequisites: BIO 210 and 220.

BIO 423 Cancer Biology Laboratory Lab 4./ Credit 3.
Laboratory course on principles of cancer biology and fundamental techniques by which to investigate biochemical and molecular end-point responses of normal and cancer cells. Designed to provide hands-on laboratory research experience that will strengthen the ability of students to develop testable scientific hypotheses and skills in data analysis. Prerequisite: BIO 305.

BIO 424 Cancer Biology and Bioinformatics
Lec. 3./ Credit 3.
Emphasis on mechanisms and effects of cancer and its treatment. Other topics include public health impact of cancer, oncogenes, tumor suppressor genes, the cell cycle, cancer cell survival mechanisms, and chemoprevention of cancer. Introduction to bioinformatics in the area of oncology. Prerequisite: BIO 305.

BIO 425 Research Seminar Credit 1.
Critical analysis of concepts or readings that integrate and offer historical or philosophical perspectives. Discussion-oriented learning will be emphasized. The work will include presentations by visiting scientists, and students involved in research projects, as well as preparation of a thesis on the research project. Prerequisite: BIO 415 or BIO 312 or BIO210 and BIO220.

BIO 430 Bioinformatics and Genomics
Lec. 2./ Lab 3./ Credit 3.
Principles and practices of bioinformatics, genomics and proteomics. Students will become proficient in use of nucleic acid sequence resources and databases for comparative sequence analysis, gene prediction, genome analysis, sequence variation studies, proteins and proteomics analysis, and phylogenetic analysis. Lecture will have a computational component; laboratory benchwork will focus on DNA Microarrays Analysis to profile global gene expression. Prerequisites: BIO 305 and MAT 118.

BIO 450/ MES 450 General Ecology (2)
Lec. 2./ Lab 3./Credit 3.
Basic interrelations of plants and animals with physical and biotic factors of the environment. Prerequisites: BIO 210 and 220 or Consent of department.

BIO - Biology Graduate/Undergraduate

BIO 501 History and Principles of Biology
Lec. 3./ Credit 3.
Lecture course which deals with significant developments in the field of biology. Intensive readings dealing with important biological concepts and relation of these concepts to other areas of science. Prerequisite: BIO 415 or BIO 301 or consent of the department chair

BIO 502 Advanced Genetics Lec. 2./ Lab 3./ Credit 3.
Advanced study of genetic principles as revealed by recent evaluations of genetic material; the genetics of microorganisms; cellular and molecular genetics. Genetics of prokaryotes and eukaryotes. Prerequisite: BIO 415 or BIO 301 and CHE 201 and 202.

BIO 503 General and Cellular Physiology Lec. 3./ Lab 4./ Credit 4.
Chemical and physical activities of living systems; functions and activities of cells, including nature of enzyme systems, nucleic acids, and other aspects of cellular metabolism. Prerequisite: BIO 415 or BIO 301 and CHE 201 and 202.

BIO 504 Organic Evolution Lec. 3./ Credit 3.
Lecture course based upon various concepts of organic evolution, including pre-Darwinian, Darwinian and modern views of natural selection. Extensive consideration given to recent evidence derived from genetics, comparative physiology, etc. Prerequisites: BIO 210 and BIO 220.

BIO 505 Research Problems Credit 1-6.
Designed primarily for senior level undergraduate and first-year graduate students. Emphasis will be placed upon laboratory-oriented studies and projects. Prerequisite: Consent of the department chair.

BIO 506 Vertebrate Embryology Lec. 2./ Lab 3./ Credit 3.
Intensive study of early development in vertebrates, including gametogenesis, fertilization, cleavage, germ-layer formation, organogenesis, and formation of extra embryonic membranes. Prerequisites: BIO 301 or BIO 308.

BIO 507 Microbial Ecology Lec. 3/ Credit 3.
Study of microbial communities and their roles in different ecosystems including freshwater, marine and terrestrial with special emphasis on interaction of microbes within living and nonliving environments, microbial diversity & population dynamics. Additional topics may include metabolic diversity, behavior of the microorganisms, economics and biotechnology.
Prerequisite: BIO 304 or equivalent.

BIO 508 Stem Cell Research Lec. 3/ Credit 3.
A lecture course that focuses on the properties of stem cells, their possible role in cancer, stem cell aging, and the potential utilization of stem cells for therapy. Topics may include mechanisms of stem cell renewal, potency, hematopoietic system, neural system development, induced pluripotent stem cells and cellular reprogramming, stem cell changes with aging, and ethical and policy issues in stem cell research and use. Students will be expected to read and critically analyze current literature, with an emphasis on the experimental bases from which our current understandings derive. Prerequisite: BIO 415 or BIO 301 and CHE 201 and 202.

BIO 509 Invertebrate Zoology Lec. 2./ Lab 2. /Credit 3.
Detailed study of important invertebrate phyla, with emphasis on the morphology, physiology, development, ecology, and phylogenetic relationships of marine invertebrates of mid Atlantic.
Prerequisite: BIO 220 or equivalent.

BIO 510 Histology Lec. 2./ Lab 4./ Credit 4.
Microscopic structures of normal animal tissues. Prerequisites: BIO 220 and 301 or consent of the department chair.

BIO 512 Cell Biology (1) Lec. 3./ Lab 2./ Credit 3.
Study of cell structure and function in prokaryotes and eukaryotes emphasizing their ultrastructure, biochemistry, cell physiology and interactions, nuclear control of cellular activity, as well as membrane trafficking. *Pre*requisite: BIO 415 or BIO 301 and CHE 201 and 202.

BIO 513 Immunology Lec. 2./ Lab 3./ Credit 3.
In-depth study of the immune system. Emphasis is placed on immunochemistry, humoral and cellular immunity, transplantation and tumor immunology. Prerequisite: BIO 415 or BIO 301 and CHE 201 and 202.

BIO 514 Virology Lec. 2./ Lab 3./ Credit 3.
In-depth study of bacterial, plant and animal viruses. Emphasis is placed on classification structure, replication and pathogenesis. Prerequisites: microbiology, genetics, organic chemistry and biochemistry. Prerequisite: BIO 415 or BIO 301 and CHE 201 and 202.

BIO 515 Parasitology Lec. 2./ Lab 3./ Credit 3.
Nature of parasitic relationships among animals; detailed consideration of protozoans, helminths, and arthropods known to exist in various symbiotic associations with human organisms and animals of economic importance. Prerequisite: BIO 415 or BIO 301 and CHE 201 and 20.

BIO 516 Marine Microorganisms Lec. 2./ Lab 3./ Credit 3.
Taxonomy, morphology, and physiology of bacteria, yeasts, filamentous fungi, protozoa, and related organisms. Special emphasis on microorganism distribution in the marine community, and their relation to problems in sanitation and stream pollution.
Prerequisites: Bio 304 or equivalent and CHE 202.

BIO 517/ MES 554 Marine Algae Lec. 2./ Lab 3./ Credit 3.
The taxonomy, morphology, and general ecology of marine algae, including planktonic, littoral and benthic forms. Field studies will include the collection of specimens for the herbarium.
Prerequisite: BIO 220.

BIO 518/ MES 518 Ichthyology Lec. 2./ Lab 4./ Credit 3.
The morphology, taxonomy, and embryology of marine fishes; some consideration of problems in speciation and economic productivity.
Prerequisite: BIO 305.

BIO 519/ MES 452 Marine Ecology Lec. 2./ Lab 3./ Credit 3.
Intensive study of marine organisms in relation to environment. Special emphasis is placed upon environmental factors, ecological succession, and the dynamics of interspecific relationships; various aspects of conservation and productivity included in the field studies. Prerequisite: Consent of department chair.

BIO 520 Biological Techniques Lec. 2./ Lab 4./ Credit 3.
Emphasis on techniques and instrumentation developed in recent years. Prerequisite: BIO 304 or BIO 311, and CHE 202.

BIO 521 Morphology and Physiology of Fungi
Lec. 2./ Lab 3./ Credit 3.
Intensive study of fungi involved in various biological interrelationships. Consideration of marine and medical mycology. Prerequisites: Basic preparation in plant and animal biology and at least one year of chemistry. Prerequisites: BIO 210 and CHE 202

BIO 522 Taxonomy of Vascular Plants
Lec. 2./ Lab 4./ Credit 4.
Classification and identification of vascular plants, primarily emphasizing phylogenetic relationships among the angiosperms. Laboratory and field work dealing primarily with local flora. Pre requisites: BIO 210 or equivalent.

BIO 523 Applied Microbiology Lec. 2./ Lab 3./ Credit 3.
Importance of microorganism in environmental pollution control, agriculture, medicine, food and chemical industries. Prerequisite: BIO 304 and CHE 202.

BIO 524 Protozoology Lec. 2./ Lab 3./ Credit 3.
A detailed study of the protozoa as a group, including cytology, enzymology, physiology, subcellular differentiation, ecology, use as pollution indicators, and economic importance. Laboratory emphasis is on identification cytology and pollution succession. Prerequisites: BIO 220.

BIO 525 Conservation Biology Lec. 3/ Credit 3.
The importance of biodiversity and threats to biodiversity. Examination of endangered, threatened, and vulnerable species. Conservation techniques for species, habitats, and ecosystems. Application of modern technologies to conservation in across disciplines including the geopolitical stage. Corequisite: MES 430 or equivalent.

BIO 526 Economic Botany Lec. 2./ Lab 2./ Credit 3.
Study of common wild and domesticated plant species of economic importance in major ecosystems of the world. Ethnobotany of different cultures. The course examines the history, classification, characteristics, diversification, cultivation, storage and uses of crops. Traditional versus modern agriculture. Relation between important crops and social structures of countries. Common crop diseases and their control. Herbal medicine. Prerequisite: BIO 210

BIO 538 Entomology Lec. 2/ Lab 2/ Credit 3.
The biology of Insects: ecology, taxonomy, morphology, reproduction, and development of representative groups. Consideration of insects of economic and medical importance and of beneficial insects and forensic entomology. Lab includes collecting and preservation of insects. Prerequisite: BIO 220 or equivalent.

BIO 540 Problems in Marine Biology Credit 3.
Research problems involving original work may be undertaken in special areas of marine biology with the consent of a faculty supervisor. Areas emphasized: Speciation in fishes, invertebrate physiology; taxonomic and ecological studies in phytoplanktonic and zooplanktonic organisms; taxonomy of algae; marine fungi; and parasitology. Prerequisite: Consent of the department chairperson.

BIO 541 Medical Entomology Lec. 2 /Lab 3./ Credit 3.
Arthropods of medical importance due to allergens, venoms, bites, and stings; vectors of human parasites and pathogens. Overview of disease ecology, taxonomy, insect/parasite life cycles, symptomology and treatment of arthropod-vectored diseases, and insect control. Prerequisite: BIO 220 or equivalent

BIO 542 Toxic and Venomous Animals
Lec. 2./ Lab 3./ Credit 3.
Marine and terrestrial invertebrate and vertebrate animals of medical importance due to allergens, venoms, bites and stings. Overview of basic systematics of animals, ecology and life cycles, symptomology and treatment of envenomation, etc. Prerequisite: BIO 220, or permission of instructor.

BIO 543 Poisonous and Medicinal Plants
Lec. 2./ Lab 3./ Credit 3.
Past, present, and possible future uses of plants in pharmacy, vermin control and medicine with particular emphasis on sources and properties of alkaloids, glycosides, steroids and antibiotics. Prerequisite: BIO 304 and CHE 202.

BIO 544 Medical Microbiology Lec. 2./ Lab 3./ Credit 3.
Pathogenesis, diagnosis, treatment and prevention of human pathogens, including bacteria, protozoa and fungi. Emphasis will be on current developments in diagnosis, microbial pathogenesis and treatment as well as emerging infectious diseases. Prerequisite: BIO 304 and CHE 202.

BIO 546 Experimental Plant Physiology
Lec. 2./ Lab 4./ Credit 4.
Study of effects of various chemical and physical factors upon growth and development of selected plants. Prerequisites: BIO 210 and CHE 202

BIO 550/ MES 500 General Ecology
Lec. 2./ Lab 3./ Credit 3.
Basic interrelations of plants and animals with physical and biotic factors of the environment. Prerequisites: Consent of department chair and graduate status.

BIO - Biology Graduate Only

BIO 601 Comparative Endocrinology Lec. 3./ Credit 3.
Chemical integration in animals, physiological action of hormones, role of hormones in growth and differentiation, with special reference to vertebrates.

BIO 602 Developmental Genetics
Lec. 2./ Lab 3./ Credit 3.
Lecture and laboratory course stressing role of genes and gene interactions as the basis for differentiation in the development of a variety of organisms; special emphasis on the teaching of human heredity.

BIO 605 Comparative Animal Physiology
Lec. 2./ Lab 4./ Credit 4.
Selected topics on physiology of various invertebrates and vertebrates. The laboratory work emphasizes experimental methods in demonstrating functional attributes of specific animals.

BIO 607-608 Modern Biology I-II Lec. 3./ Credit 3.
Basic concepts and principles applied to biology as an integrated science with particular emphasis upon molecular aspects and other major themes currently being stressed in modern biology courses. Prerequisites: Basic preparation in biology and graduate level standing. Especially recommended for in-service secondary school science teachers.

BIO 609 Advanced Human Anatomy and Physiology Lec. 2./ Lab 3./ Credit 3.
A comprehensive study of systemic human anatomy and physiology. Emphasis is placed on normal morphology, physiology and systems interrelationships as a basis for studying disease processes. Prerequisites: One year of chemistry and two years of biology to include an undergraduate course in anatomy and physiology or permission of instructor.

BIO 610 Plant Growth and Reproduction Lec. 3./ Credit 3.
Lecture course emphasizing basic factors related to growth and reproductive processes in higher plants.

BIO 612 Comparative Plant Morphology Lec. 2./ Lab 3./ Credit 3.
Consideration of basic developmental features in vascular plants; emphasis on phylogenetic trends exemplified in life cycles and in morphogenesis of selected plant groups.

BIO 616 Marine Microorganisms Lec. 2. / Lab 4./ Credit 3.
Taxonomy, morphology, and physiology of bacteria, yeasts, filamentous fungi, protozoa, and related organisms. Special emphasis on microorganism distribution in the marine community, and their relation to problems in sanitation and stream pollution. Prerequisites: Microbiology and general chemistry.

BIO 617/ MES 554 Marine Algae Lec. 2./ Lab 3./ Credit 3.
The taxonomy, morphology, and general ecology of marine algae, including planktonic, littoral and benthic forms. Field studies will include the collection of specimens for the herbarium.

BIO 618/ MES 518 Ichthyology Lec. 2./ Lab 3./ Credit 3.
The morphology, taxonomy, and embryology of marine fishes; some consideration of problems in speciation and economic productivity. Prerequisite: BIO 305.

BIO 619/ MES 452 Marine Ecology Lec. 2./ Lab 3./ Credit 3.
Intensive study of marine organisms in relation to environment. Special emphasis is placed upon environmental factors, ecological succession, and the dynamics of interspecific relationships; various aspects of conservation and productivity included in field studies. Prerequisite: Consent of department chair.

BIO 621 Helminthology Lec. 2./ Lab 3./ Credit 3.
Study of the worm parasites, including their life cycles, morphology, taxonomy and environmental relations; methods and techniques dealing with helminths.

BIO 650 Research Topics in Biology Credit 3-6.
Emphasis upon materials, techniques, and subject-matter content that may form the basis for a thesis problem. Prerequisite: Consent of department chairperson.

BIO 681 Thesis Credit 4.
This course documents completion of the written Master's thesis and oral defense of that thesis.

BIO 700 Thesis Registration Credit 1.
This course documents continuation of data analysis, interpretation, and progress toward completion of the Master's Thesis in Biology for students in absentia. Credit earned does not count toward degree requirements. S/U grading only. Prerequisite: Registration for BIO 681 (Master's Thesis).

BIO 701 Graduate Internship Credit 3-6.
A course integrating subject matter of a biological nature with practical work experience in an approved agency. Prerequisite: Consent of the department chair and graduate advisor.

BIO 702 Master's Comprehensive Examination Credit 1.
Required registration to take a comprehensive examination for the Master's degree. This credit does not count towards the degree. S/U grading only.

CDS (Communicative Sciences and Disorders)

CDS 201 Introduction to Communicative Sciences and Disorders Lec. 3./Credit 3.
An overview of the field of communicative sciences, including various speech, language and hearing disorders, professional organizations and journals, code of ethics, licensure and certification procedures. Also, a study of employment opportunities and legislation pertinent to the field of communicative sciences.

CDS 224 Phonetics (2) Lec. 3./Credit 3.
Recognition, analysis, and production of sounds in the English language. Transcription of normal and disordered speech. Application of phonetics to the treatment of speech problems.

CDS 227 Anatomy and Physiology of the Speech Mechanism (1) Lec. 3./Credit 3.
Discussion of the respiratory, phonatory, and articulatory mechanisms of speech production. In addition, a description of the various organic etiologies that lead to speech disorders.

CDS 228 Articulation Development & Disorders Lec. 3./Credit 3.
An in-depth study of the normal acquisition of speech from birth through young adulthood. Incorporation of the speech development of other cultures is an important consideration of the course. Students will study the available research on normative data and will compare these data with information on the disorders of articulation, and methods for assessment and treatment. Prerequisites: CDS 224 and 227.

CDS 300 Language Development Lec. 3./Credit 3.
A thorough study of language learning from birth to adolescence and its impact on the developing child. An investigation of language learning of children from other cultures, across North America and elsewhere. Students will carefully review the major theories of language acquisition and compare these theories with developing research.

CDS 301 Language Disorders in Children & Adolescents Lec. 3./Credit 3.
A study of the nature, causes and treatment of language disorders in children and adolescents. The impact of how other cultures view these disorders and the relationship of diagnosis and treatment in our culture. A survey of the new etiologies, i.e., alcoholism, drug abuse, etc., and how they impact language disorders.
Prerequisite: CDS 300.

CDS 305 Language Development II – School Aged and Adolescents Lec. 3./Credit 3.
This course will provide information about language learning and cognitive development in the school age and adolescent population. Students will examine the effects of linguistics, meta-linguistics and discourse on the communication of older children. Students will also study the role of academics and social competence on communication effectiveness. Prerequisite: CDS 300.

CDS 310 Clinical Observation Lec. 1./Credit 1.
Students will be given the opportunity to develop competent observation skills and acquire observation hours on a variety of case types. Information will be provided regarding practicum procedures and licensure and certification requirements. Must be taken concurrently with CDS 315.

CDS 311 Clinical Apprenticeship Lec. 1./Credit 1.
Students will increase their observation skills and acquire a total of 25 observation hours on a variety of case types. Opportunities will be provided to participate in ongoing evaluations and remediation sessions and to practice documentation procedures. Must be taken concurrently with CDS 316.

CDS 315 Diagnostic Methods in Speech/Language Pathology Lec. 3./Lab 3./ Credit 3.
An introduction to the diagnosis of communication disorders in children and adults. Discussions of the process of differential diagnosis, evaluation and selection of assessment instruments and an explanation of the concepts of delay, difference and disorder. Application of test administration techniques, interpretation of test results and report writing and documentation procedures are included. Laboratory required.

CDS 316 Treatment Methods in Communication Disorders Lec. 3./Lab 3./ Credit 3.
A study of the basic methods in the treatment of communication disorders in children and adults. Theories of learning and their effect on remediation procedures in communication disorders. Focus on the principles, methods and materials used in the remediation of communication disorders and sensitivity to multicultural issues during intervention. Emphasis on documentation for planning and executing therapy. Laboratory required. Prerequisite: CDS 315.

CDS 320 Fluency Disorders Lec. 3./Credit 3.
The study of the fluency disorders including stuttering and cluttering. Introduction to the theories of fluency disorders. Overview of the intervention methods used with both children and adults.

CDS 331 Introduction to Audiology I (1) Lec. 3./Lab 3./Credit 3.
An introduction to the profession of audiology, a review of the fundamentals underlying the principles of acoustics, the anatomy and physiology of the auditory system. Basic measurement of auditory function and interpretation of audiologic findings.

CDS 332 Audiologic Assessment and Management Lec. 3./Lab 3./Credit 3.
Identification of auditory pathologies and their associated audiological manifestations. Study and management of etiologies affecting the auditory system and assessment of special populations. Prerequisite: CDS 331.

CDS 418 Voice Disorders Lec. 3./Credit 3.
A study of the human voice and normal voice production. An investigation of the disorders that develop from the normal voice and the assessment and treatment of these disorders. A look at how other cultures view voice disorders with an investigation of the research from these cultures and their assessment and treatment principles.

CDS 425 Supervised Experience in Speech Pathology and Audiology I Lec. 4./Credit 4.
Experience in schools and clinics with emphasis on recognition, diagnosis and treatment of speech in diverse populations. Emphasis on report writing and sensitivity to cultural differences across caseloads. Students must accumulate supervised clock hours while demonstrating application of professional practices. Prerequisites: CDS 315 and 316.

CDS 426 Supervised Experience in Speech Pathology and Audiology II Lec. 4./Credit 4.
Experience in schools and clinics with emphasis on application of professional skills and knowledge of professional issues. Students must accumulate a minimum of 50 supervised clock hours.
Prerequisites: CDS 315 and 316.

CDS 429 Aural Rehabilitation Lec. 3./Credit 3.
Study of the effect of hearing loss and deafness in children and adults and approaches to the development of communicative skills necessary for their rehabilitation. Introduction to speech-reading techniques, auditory training, the use of hearing devices and assistive technology, speech training, and educational counseling.
Prerequisite CDS 332.

CDS 430 Adult Neurogenic Disorders Lec. 3./Credit 3.
Study of neuroanatomy affecting communication in the adult and geriatric populations. An exploration of normal aging in addition to the disorders of aphasia, dysarthria, apraxia, dysphagia and other disorders affecting the communication of adults. Consideration given to adult neurogenics in other cultures and an introduction to the approaches to remediation of this population. Prerequisite: one semester of anatomy and physiology or permission of the instructor.

CDS 431 Neuroscience for Students in Communicative Sciences and Disorders Lec. 3./Credit 3.
Structure and function of the nervous system mechanism concerned with speech and language. An examination of the disorders of the central nervous system, their location and effects on speech language and other behaviors. Prerequisite: CDS 227.

CDS 432 Speech and Hearing Seminar Lec. 3./Credit 3.
Discussions, readings, lectures, and independent study. Research and analysis in special problems in speech and hearing.

CDS 436 Differential Audiology Lec. 3./Credit 3.
In-depth study of specific topics in audiology, i.e., electrophysiologic measurements including impedance audiometry, ENG testing, auditory brainstem response and otoacoustic emissions. Review of recent literature and research in the field of audiology and clinical application. Prerequisites: CDS 331 and 332.

CDS 438 Introduction to Speech Science Lec. 3./Credit 3.
The study of the fundamental scientific principles underlying physiological speech production within each subsystem of the human mechanism. Pre-requisites: CDS 224, 227, 228.

CDS 499 Independent Study Ind./Credit 3.
Readings and research on approved topics. Prerequisite: Twelve (12) hours of CDS coursework at the 300 level and above.

CDS - Communicative Sciences and Disorders Undergraduate/Graduate

CDS 500 Introduction to Professional and Technical Communication Lec. 3./Credit 3.
This course will provide structured learning experiences so that students acquire oral and written communication skills needed for entry into the profession; including use of terminology, speaking styles and writing styles; and development of skill in report writing for research and clinical practices and oral communication for group and dyadic professional settings. Prerequisites: CDS 224, 227, 228, 300, 310, and 331.

CDS 501 Research Design in Speech and Hearing Science and Disorders Lec. 3./Credit 3.
Advanced study in speech, language and hearing sciences with experiences in evaluating research and developing a research proposal.

CDS 507 Stuttering and Other Fluency Disorders Lec. 3./Credit 3.
Students will examine contemporary interpretations of stuttering and other disorders of fluency. Students will gain knowledge and skills in prevention of fluency disorders, differential diagnosis, applications of learning theory concepts for treatment, and approaches to the scientific study of behavior modification. Prerequisites: CDS 224, 227, 228, 300, 310 and 331.

CDS 529 Advanced Aural Rehabilitation Lec. 3./Credit 3.
A study of procedures and techniques in hearing aid evaluation and fitting and in the rehabilitation of individuals with hearing impairment. Examination of the research in speech reading, auditory training, and cultural variables as well as legislation related to individuals with hearing impairment.

CDS - Communicative Sciences and Disorders Graduate Only

CDS 600 Scientific Principles of Acoustic and Physiological Phonetics Lec. 3./Credit 3.
Students will study the acoustic, physiological and cognitive properties underlying the human communication process. Students will gain hands-on laboratory experience with speech science equipment emphasizing both clinical and research applications. Prerequisites: CDS 224, 227, 228, 300, 331, 431, 438.

CDS 601 Neurophysiological Basis of Language Lec. 3./Credit 3.
Structure and function of the nervous system mechanism concerned with speech and language. An examination of the disorders of the central nervous system, their location and effects on speech language and other behaviors. Prerequisite: Undergraduate course work in anatomy and physiology of the speech mechanism.

CDS 602 Diagnostic Procedures in Speech and Language Pathology Lec. 3./Credit 3.
Clinical examination of persons with communication problems emphasizing the clinical interview, assessment tools and procedures, analysis and interpretation of clinical data, and the development of diagnostic recommendations. Registration by permission of the instructor. Prerequisite: Undergraduate coursework in diagnostic methods.

CDS 603 Neurolinguistic Disorders in Adults Lec. 3./Credit 3.
Students will examine scientific, theoretical, and clinical consideration of psycho-neurological disorders in the adult; symptomatology, prevention, diagnosis, and rehabilitation of disturbed processes in comprehension, spoken, and written language. Prerequisites: CDS 224, 227, 228, 300, 305, 310, 331, 431, 438.

CDS 606 Voice Disorders Lec. 3./Credit 3.
An in-depth study of the human voice, including characteristics of normal voice production, pathologies that produce voice disorders, theories and methods of research, diagnostics, and treatment. Registration by permission of the instructor.

CDS 607 Stuttering Lec. 3./Credit 3.
Study of contemporary interpretations of stuttering and methods of treatment, including differential diagnosis, applications of learning theory concepts, and approaches to the scientific study of behavior modification. Registration by permission of the instructor.

CDS 611 Seminar: Contemporary Topics in Speech and Language Pathology Lec. 3./Credit 3.
Detailed study of selected topics in speech and language pathology. Registration by permission of the instructor.

CDS 612 Articulation and Phonological Disorders Lec. 3./Credit 3.
Students examine the pathologies and malfunctions which produce articulation and/or phonological problems. Students evaluate current preventative, assessment and therapeutic procedures as well as pertinent research findings. Registration by permission of the instructor. Prerequisites: CDS 224, 227, 228, 300, 305, 310, 331, 431,438.

CDS 618 Advanced Clinical Practicum Cln./Lec. 3./Credit 1-3.
This course provides supervised experience in public schools, clinics and hospitals, with emphasis on screening, diagnosis, and treatment of speech, language and swallowing disorders. Coursework is presented in three modules over 3 semesters reflecting growth in clinical knowledge and skill. Course material includes the study of theories, principles and approaches used in prevention, evaluation, and treatment of communication disorders and application of evidence-based practice in speech/language intervention. Practicum experiences will take place in three distinct clinical settings, over a period of three or more semesters. Each student must minimally earn a total of 375 clinical clock hours in the prevention, evaluation and treatment of communication disorders among children and adults from diverse backgrounds. Clinical faculty will arrange all practicum hours. Initial clinical placement is dependent on a passing score on the clinical qualifying examination and completion of 25 hours of observation. Subsequent placements are dependent on successful participation in previous clinical placements. Prerequisites: CDS 224, 227, 228, 300, 305, 310 (a minimum of 25 clock hours of supervised observation), 331, 500, and 507; Co-requisites: CDS 612, 622, 625 and; CDS 603, 628 are prerequisites for externship placement within a healthcare facility.

CDS 620 Language Acquisition and Development (1) Lec. 3./Credit 3.
An in-depth study of language learning and its impact upon the developing child, with emphasis on problems of delay and the breakdown of language functions. An investigation of research related to normative data, language development and usage. Registration by permission of the instructor. Prerequisite: Undergraduate course work in normal language development.

CDS 621 Language Disorders in Children Lec. 3./Credit 3.
Study of current advances in the description and causes of language disorders in children and adults. A review of assessment and therapeutic approaches for language disorders. Registration by permission of the department chairperson.

CDS 622 Family Intervention Strategies in Communicative Sciences and Disorders Lec. 3./Credit 3.
Study of principles, theories and approaches to intervention with the communication disordered and their families. Students must participate in a supervised experience in counseling with parents/family members. Registration by permission of the instructor. Graduate level students only.

CDS 624 Readings in Communicative Sciences and Disorders Lec. 3./Credit 3.
An opportunity for detailed study of a topic of interest in speech, language, or hearing under the supervision of a faculty advisor. FOR MAJORS ONLY. Graduate level students only. Registration by permission of the instructor.

CDS 625 Motor Speech Disorders Lec. 3./Credit 3.
Course content will include a thorough study of the motor system, its components, its structure and its function. An intense evaluation of dysarthria and apraxia of speech, their etiologies, evaluation and specific treatment recommendations will be discussed. Management strategies for patients/clients of various ages from diverse backgrounds with diverse etiologies and characteristics will be reviewed, demonstrated and evaluated. Prerequisites: CDS 224, 227, 228, 300, 305, 310, 331, 431, and 438.

CDS 628 Diagnosis and Management of Swallowing Disorders in Neurologically Impaired Adults Lec. 3./Credit 3.
Assessment and treatment of swallowing disorders (dysphagia) in adults, including normal neurophysiology of deglutition, clinical and radiographic assessment and therapy management. Prerequisite: CDS 431 or equivalent course work in neurophysiology. Registration by permission of the instructor.

CDS 630 Augmentative and Alternative Communication Lec. 2./Credit 2.
The study of alternative and augmentative communication methods emphasizing evaluation and treatment strategies, device selection, AAC team dynamics and cultural-linguistic diversity across the lifespan. Registration by permission of the instructor.

CDS 632 Craniofacial and Other Organic Disorders of Speech and Swallowing Lec. 2./Credit 2.
Course content will include a study of craniofacial development, the mechanisms underlying developmental disruptions and the impact on communication and social-emotional development within various cultures across the lifespan. Evaluation and treatment of both communicative and feeding needs will be discussed. Registration by permission of the instructor.

CDS 633 Language and Literacy Disorders
Lec. 2./Credit 2.
This course will examine the relationships between spoken and written language with an emphasis on understanding language and literacy development in a wide variety of cultures. Students will also examine risk factors associated with language and literacy difficulties. Consideration will be given to principles and methods of prevention, assessment and intervention involved in the literacy education of individuals from early childhood through adolescence and adulthood. Registration by permission of the instructor.

CDS 634 Dialogues on Diversity Lec. 2./Credit 2.
This course will focus on key terms basic to cross-cultural training and steps in developing cultural competence and cross-cultural communication. Students will apply cultural skills and knowledge to engage in active case analysis involving clients from culturally and linguistically diverse backgrounds with communication disorders. Registration by permission of the instructor.

CDS 635 Clinical Practice in a Medical Setting
Lec. 2./Credit 2.
In this course, students will study medical conditions associated with speech, language or swallowing problems. Evaluation and treatment as it relates to clinical settings will also be discussed. Registration by permission of the instructor.

CDS 699 Independent Research I Ind./Credit 1.
This is the first course in a two-course sequence that provides students with opportunities to apply knowledge of research principles in the implementation of a pilot research project in communication sciences and disorders, and to expand their understanding of how scientific evidence is produced and utilized for defining and solving clinical problems. In this course, students, working under the direction of selected graduate faculty, write the proposal for the pilot study and obtain IRB approval, if needed. Prerequisites: CDS 500 and 501.

CDS 700 Independent Research II Ind./Credit 2.
This is the second course in a two-course sequence that provides students with opportunities to apply knowledge of research principles in the implementation of a pilot research project in communication sciences and disorders. In this course, students, working under the direction of selected graduate faculty, collect and analyze data, interpret results and write the final report of their pilot research project to demonstrate knowledge and skill in the attainment of scientific evidence for use in clinical practice. Registration by permission of the instructor.

CDS 702 Master's Comprehensive Examination Credit 1.
Prerequisites: Must have completed all coursework for the program of study and 300/375 supervised clock hours of clinical practicum.

CHE (Chemistry)

CHE 101-102 General Chemistry
Lec. 3./ Lab 3./Prb. 1./Credit 4.
A one-year course in general chemistry, organic chemistry, and biochemistry to meet requirements for persons not majoring in chemistry. Co-requisite MAT 109.

CHE 114 Introduction to Research Topics in Chemistry
Sem./Prj./Credit 1-6.
Designed for freshman level undergraduates. Emphasis will be placed upon introduction to areas of chemistry research, regular attendance at appropriate seminars, techniques of literature searches, and background study. This course may be taken twice. Prerequisite: Consent of the department chairperson.

CHE 150 General Chemistry Problem Solving
Lec. 3./Credit 3.
Emphasizes the development and/or improvement of students' analytical and quantitative skills.

CHE 201-202 General Chemistry and Qualitative Analysis
Lec. 3./Lab 3./Prb. 1./Credit 4.
Detailed consideration of compounds, chemical equilibrium, and elementary qualitative analysis. This course serves as a prerequisite course for all subsequent chemistry courses. Prerequisite: A grade of "C" or better is required in CHE 201 before enrolling in CHE 202. Corequisite: MAT 118

CHE 214 Basic Research Topics in Chemistry
Sem./Prj./Credit 1-6.
Designed for sophomore level undergraduates. Emphasis will be placed upon introduction to basic techniques of conducting research and literature review, regular attendance at selected seminars, and directed work on a research project in chemistry. This course may be taken twice. Prerequisite: Consent of the research mentor.

CHE 300 Cooperative Work-Study Credit 4-8.
Chemistry majors may participate in this program upon meeting requirements specified by the University and the department. Students may work in industrial or government laboratories. The University and the agencies involved jointly select participants from their program.

CHE 301-302 General Organic Chemistry
Lec. 3./Lab 6./Prb. 1./Credit 4.
Systematic study of the sources, nomenclature, properties and uses of carbon compounds. Prerequisite: CHE 201-202, with a grade of "C" or better in each course for chemistry majors. At least a "C" is required in CHE 301 before enrolling in CHE 302.

CHE 303-304 Introduction to Biochemistry
Lec. 3./Lab 3./Prb. 1. Credit 4.
A two-semester introductory course sequence focusing on the study of chemical principles as they relate to molecular biology. Emphasis will be placed on the study of general principles of biochemistry, including the structure, properties, function of biomolecules. The laboratory component will focus on the use of established biochemical techniques to study biochemical processes and related molecular biology principles. Prerequisite: CHE 301 with a grade of "C" or better in all four.

CHE 311 Environmental Chemistry Lec. 3./Credit 3.
The emphasis in this course is on the development of fundamental concepts of environmental chemistry.

CHE 313 Quantitative Analysis
Lec. 3./Lab 6./Prb. 1./Credit 4.
Covers fundamental laws and theories of chemistry as applied to volumetric, gravimetric, and some instrumental methods of analysis. Prerequisites: CHE 201-202 with a grade of "C" or better in each course, and MAT 117-118.

CHE 314-315 Introduction to Chemical Research
Proj. /Credit 3.
A two-semester course sequence designed to provide chemical research initiation and enrichment for junior chemistry and biochemistry majors. Emphasis is placed on the orientation of students to the general and specific objectives of research and to the use of research tools and techniques. Students will perform entry level research under close supervision. Prerequisite: Consent of chairperson.

CHE 401-402 Physical Chemistry
Lec. 3./Lab 3./ Prb.1./Credit 4.
Fundamental laws and theories of matter as applied to gases, liquids, solids, and solutions. Prerequisites: CHE 201-202, CHE 301302, MAT 151, PHY 201-202, or 203-204. A grade of "C" in CHE 401 is required before enrolling in CHE 402.

CHE 403 Radiochemistry Lec. 3./Credit 3.
Theory and practice of radiation measurements with emphasis on the use of radioisotopes as tools in scientific investigations. Prerequisites: CHE 201-202.

CHE 405 406 Chemistry Seminar Sem. 1./Credit 1.
Reports, study, and discussion of current literature in chemistry. Prerequisites: CHE 201, 202, 301, 302, 303, 304, 313, 401.

CHE 407 Intermediate Organic Chemistry
Lec. 3./Credit 3.
Reaction control techniques, product identification and purification techniques and certain special techniques will be presented. Emphasis will be placed on laboratory activities and experimentation. Prerequisites: CHE 301-302.

CHE 408 Advanced Analytical Chemistry
Lec. 3./Lab 6./Credit 4.
Emphasis placed on theory and techniques involved. Application of modern instrumental methods of analysis such as spectrochemical analysis, colorimetry, chromatography, polarography, and electrophoresis. Prerequisites: CHE: 313, 401.

CHE 410 Special Topics Lec. 3./Credit 3.
Critical studies of selected topics in chemistry. Prerequisites: CHE 401-402.

CHE 414-415 Chemical Research Applications
Pjt. 3./Credit 3.
A two-semester research course sequence for senior chemistry majors. The course offers a rigorous and comprehensive foundation in research fundamentals and techniques. Students who take one or both courses of the CHE 414-415 sequence must also write a research paper. Both CHE 414 and CHE 415 meet for a minimum of 6 hours per week for a period of 15 weeks.

CHE 419 Advanced Inorganic Chemistry
Lec. 3./Lab 3./Credit 4.
A modern approach to the behavior of chemical systems; a systematic study of the chemistry of the elements; aqueous and non-aqueous solutions; coordination compounds; noble gases and bonding theories. Prerequisites: CHE 201-202, 401-402.

CHE 420 Topics in Forensic Chemistry Lec. 3/Credit 3
Detailed discussion of current topics in forensic chemistry and forensic science. Required for forensic chemistry concentration. All others by instructor's permission. Prerequisites: CHEM 301-302, 313, 401-402.

CHEM 421 Physical Methods in Forensic Chemistry
Lec. 3/Lab 4/Credit 4
Examination, discussion, and study of the techniques, methods, and materials used in forensic chemistry. Prerequisite: CHE 420. Two three-hour Laboratory work is included.

CHE - Chemistry Undergraduate/Graduate

CHE 501-502 Biochemistry Lec. 3./Lab 3./Prb.1.Credit 3-4.
Chemistry and reactions of constituents of living matter, carbohydrates, lipids, proteins, nucleic acids, vitamins, coenzymes, and minerals. A comprehensive discussion of the bioenergies, transformations, degradative, and biosynthetic pathways of cellular constituents, metabolic regulations, and enzymatic reaction mechanism. Prerequisites: CHE 303-304. All undergraduate students enrolled in CHE 501 and 502 lectures must also take the corresponding laboratory concurrently. Labs are optional for graduate students.

CHE 503 Chemical Thermodynamics Lec. 3./Credit 3.
Basic principles of thermodynamics, non-electrolyte and electrolyte solutions, phase transitions, critical phenomena, chemical potential as a criterion of spontaneity and equilibrium in multicomponent systems. Partial molar quantities. Elective for graduate students. Undergraduates need approval of their advisor.

CHE 505 Molecular Spectroscopy Lec. 3./Credit 3.
Analysis of molecular structure by various spectroscopic techniques such as nuclear magnetic resonance, mass spectroscopy, and infrared spectroscopy, with an emphasis on recent advances in those fields. Undergraduates need approval of their advisor.

CHE 506 Physical Biochemistry Lec. 3./Credit 3
Physical biochemistry is a one semester course which surveys special topics in the use of physical methods to analyze biochemical problems. It investigates model systems and theory that explain observed behavior of biological systems. It examines widely used spectroscopic and a variety of other physical techniques in the study of structure and behavior of biomolecules. Emphasis will also be placed on the analysis of kinetic and thermodynamic principles that govern reactions and interactions of biomolecular systems.
Prerequisites: CHE 303-304, CHE 313 and CHE 401.

CHE 507 Chemical Kinetics Lec. 3./Credit 3.
In-depth study of reaction rates and mechanisms: homogeneous and heterogeneous reactions; determination of reaction orders and derivation of rate laws; catalysis; kinetic methods such as relaxation techniques (temperature jump, pressure-jump, flash-photolysis and pulse radiolysis); methodology and instrumentation for detection of short-lived intermediates; use of isotopes to study reaction rates and mechanisms. Undergraduates need approval of their advisor.

CHE 508 Bio-organic Chemistry Lec. 3./Credit 3
This course encompasses the application of chemical principles and practices to biological systems. The intersection between organic and biochemistry will be explored as it relates to biosynthesis, analysis of biological molecules using chemical instrumentation, chemical biology and an introduction to medicinal chemistry. Topics to be covered within the course include amino acids, nucleic acids, polypeptides, chemical inhibition, lipids, carbohydrates and drug design. Current trends in bio-organic chemistry will be surveyed and discussed as to their relevance to the frontier of research. Prerequisites: CHE 303-304, CHE 401.

CHE 509 Environmental Chemistry Lec. 3./Credit 3.
An intensive lecture course dealing with a study of the air, land, and sea environments; and the factors contributing to environmental pollution problems. Open to graduates and undergraduates. Prerequisite: CHE 313, otherwise seek and obtain approval of the instructor.

CHE 510 Polymer Chemistry Lec. 3./Credit 3.
Stresses synthesis, structure/property relationships and materials application of polymers. Prerequisite: CHE 301-302 with grade of "C" or better in both courses.

CHE 511 Surface Chemistry Lec. 3./Credit 3.
Capillarity, interfacial thermodynamics, electrical aspects of surface chemistry, electrical double layer, electrokinetic phenomena;absorption and monolayers, adhesion and cohesion, nucleation and crystal growth. Undergraduates need approval of their advisor.

CHE 512 Bio-inorganic Chemistry Lec.3/Credit 3
Biological inorganic chemistry (bio-inorganic chemistry) is an elective course that studies the "inorganic" elements as they are utilized in biology, and surveys the structure and functions of complexes and materials that are formed in the biological environment in the context of chemistry. It examines widely the interaction of metal ions with biological systems (structure and dynamics) and the important chemical properties they are able to exhibit and impart to an organism. The topics to be covered will include ligand binding, biochemical catalysts (enzymes), signaling, regulation, sensing, defense, and structural support. Prerequisites: CHE 303-304.

CHE 513 Qualitative Organic Chemistry Lec. 3./Credit 3.
Designed to teach methods by which organic compounds are identified. Elementary analysis, solubilities of classes of compound, chemical reactions, and physical measurements are employed and literature is surveyed. Prerequisites: CHE 302.

CHE 517 Modern Methods of Chemical Analysis
Lec. 3./Credit 3.
An overview of recent developments in chemical analysis techniques and methodologies. Undergraduates need approval of the instructor.

CHE - Chemistry Graduate Only

CHE 601-602 Modern Inorganic Chemistry
Lec. 3./Credit 3.
Survey of basic principles required for understanding of inorganic chemistry, including oxidation-reduction potentials, atomic and molecular structure, crystal structure, radioactivity, complex ions, and coordination compounds. Chemistry of elements and their compounds are also discussed from these viewpoints. Open to chemistry graduate students only.

CHE 605-606 Advanced Organic Chemistry
Lec. 3./Credit 3.
Principles of physical organic chemistry and their application in the study of reaction mechanisms. Critical evaluation of experimental evidence is emphasized. Recent advances in synthetic methods and topics in natural products chemistry. Open to chemistry graduate students only.

CHE 608 Techniques in Environmental Analysis
Lec. 3./Lab 1./Credit 4.
An Instrumental Analysis course for graduate students pursuing a degree in environmental science and related areas. Emphasizes applications of modern chemical instrumentation in environmental studies.

CHE 611 Advanced Analytical Chemistry Lec. 3./Credit 3.
Topics in chemical equilibria: aqueous acid-base equilibria, nonaqueous acid-base equilibria, complexation equilibria, and solubility of precipitates; classical methods of chemical analysis: gravimetric methods, volumetric methods, and liquid-liquid extractions; modern methods of chemical analysis; atomic and molecular spectroscopy, electroanalytical methods, mass spectrometry, and chromatographic techniques (gas, ion, liquid, and thin layer chromatography). Open to chemistry graduate students only.

CHE 613-614 Advanced Physical Chemistry
Lec. 3./Credit 3.
A detailed presentation of physiochemical systems, energetics, entropy and free energy kinetic theory, and statistical mechan ics. Other aspects will cover changes of state, solutions, chemical affinity, chemical reaction rates, electrochemistry, interfaces, quantum mechanics and atomic structure, the chemical bond, spectroscopy and photochemistry, and macromolecules. Open to chemistry graduate students only.

CHE 615-616 Graduate Seminar Credit 1.
Review of current topics in the chemical literature. Open to chemistry graduate students only.

CHE 650 Thesis Research Credit 6. (minimum)
Emphasis upon materials, techniques, and subject-matter content that may form the basis for a thesis problem. Prerequisite: Consent of department chair.

CHE 681 Thesis Credit 4.
This course documents completion of the written Master's thesis and oral defense of that thesis.

CHE 700 Thesis Registration Credit 1.
Graded on S/U basis only.

CHI (Chinese)

CHI 101 Elementary Chinese I Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

CHI 102 Elementary Chinese II Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication stressed. Prerequisite: CHI 101 or the equivalent.

CHI 201 Intermediate Chinese I Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: CHI 102 or the equivalent.

CHI 202 Intermediate Chinese II Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: CHI 201 or the equivalent.

CHI 301-302 Advanced Chinese Conversation I-II Lec. 3./Credit 3.
These courses will review basic Chinese grammar, vocabulary and written characters to improve speaking, writing and reading while gaining knowledge of the culture and the society. Emphasis is on communicative competence.

CHI 303-304 Advanced Chinese Reading I-II Lec. 3./Credit 3.
This course exposes students to authentic materials relating to current issues, political, cultural and economic as well. Introduces students to elements of discussion.

CHI 320 Ancient Chinese Civilization and Culture Lec. 3./Credit 3.
Introduces students to ancient Chinese civilization and culture.

CHI 321 Topics in Chinese Literature and Culture Lec. 3./Credit 3.
This course exposes students to important issues through the study of works of important writers of the twentieth century.

CHI 440 Experiential Learning Lec. 3./Credit 3.
Can include study abroad, research abroad, domestic or international internships.

CHO (Choir)

CHO 101 Major Ensemble-University Choir Credit 1.
University Choir is offered in the Fall and Spring semesters for one hour of academic credit each. This organization performs on campus. Performance auditions are used as a means of placement within the ensemble.

CHO 102 Major Ensemble-Concert Choir Credit 1.
Concert Choir is offered in the Fall and Spring semesters for one hour of academic credit each. This organization performs at various concerts in the area and around the country. Membership in this ensemble is achieved by successful completion of an audition and/or by permission of the instructor.

CHO 103 Ensemble-Gospel Choir Credit 1.
Gospel Choir, His Chosen Sounds, is offered in the Fall and Spring semesters for one hour of academic credit each. This organization performs at various concerts in the area and around the country. Membership in this ensemble is achieved by successful completion of an audition and/or by permission of the instructor.

CIS (Computer Information Systems)

CIS 310 Information Systems in Organizations (MGT 323) Lec. 3./Credit 3.
Establishes foundation for understanding and analyzing information in organizations. Includes management information systems; relating systems and information to organizational objectives; organizational structure and management; systems, information, and decision theory; information system applications; and system evaluation and selection. Prerequisite: CSC 251.

CIS 320/MIS 309 Information Analysis Lec. 3./Credit 3.
An overview of the systems development life cycle. Emphasis on analyzing information needs and specifying application system requirements. Includes information gathering and reporting techniques. Approaches for the transition from analysis to object-oriented design and development.
Prerequisite: CIS 310.

CIS 410/MIS 406 System Design Process Lec. 3./Credit 3.
Introduction to the formalization of the information design process. Emphasis on application of object-oriented techniques in the analysis, design, development, and implementation of information systems. Prerequisites: CIS 320 and CSC 570.

CIS 420 Information Systems Project Pjt./Credit 3-6.
Actual experience in analyzing, designing, implementing, and evaluating information systems. Project assignment involves part or all of the system development cycle. Work done in teams for acquiring practical experience in such projects; includes behavioral considerations in systems development. Prerequisite: CIS 410.

CME (Chemical Engineering)

CME 201 Chemical Engineering Calculations I
Lec. 4./Credit 4.
An introduction to Chemical Engineering. Treatment of system of units, unit conversions, stoichiometric and composition relation ships; material balances in nonreactive and reactive systems; gas behavior; multiphase systems, vapor pressure and solubility. Concept of energy, introduction to first law of thermodynamics; energy balances in non-reactive and reactive processes; applications in simultaneous material and energy balances; transient processes; introduction to commercial process simulators. Corequisite: CHE 202, MAT 152 and knowledge of a programming language.

CME 202 Chemical Engineering Calculations II
Lec. 3./Credit 3.
Concept of energy, introduction to first law of thermodynamics; energy balances in non-reactive and reactive processes; applications in simultaneous material and energy balances; transient processes; introduction to commercial process simulators. Prerequisite: CME 201.

CME 301 Staged Operations Lec. 3./Credit 3.
Unified treatment of equilibrium-stage processes and mass transfer operations. Introduction of mass transfer separation operations used in countercurrent multistage equipment for distillation, extraction, leaching and absorption. Corequisite: CME 304 and CME 402.

CME 302 Transport Phenomena Lec. 3./Credit 3.
This course expands the student's understanding of transport phenomena. Particular emphasis is placed on developing and applying differential and integral balances. Prerequisite: EGR 216, CME 305.

CME 303-304 Transport Phenomena I-II Lec. 3./Credit 3.
This course sequence introduces the student to the general property balance equation and to various transport mechanisms for momentum, energy, and mass. Differential and integral momentum, energy, and mass balances will be derived and applied to engineering problems involving steady and transient transport. Prerequisites: PHY 204, MAT 260 and CME 201 for CME 303. Prerequisites: CME 202 and CME 303 for CME 304. A grade of "C" or better is required in CME 303 before enrolling in CME 304.

CME 305 Chemical Engineering Calculations
Lec. 4./Credit 4.
This course provides an introduction to chemical engineering. The concepts introduced in EGR 215 and EGR 216 are applied to chemical processes to obtain stream properties. Prerequisite: EGR 216.

CME 306 Separation Operations Lec. 4./Credit 4.
This course provides an introduction to equilibrium stage and continuous contact mass transfer operations. Design and operation of gas absorption, distillation, extraction, and membrane separation equipment are emphasized. Prerequisite: CME 202, 304 and 307.

CME 307 Chemical Engineering Thermodynamics
Lec. 4./Credit 4.
This course covers the application of thermodynamics to fluid mixtures, solutions, phase equilibria and chemical reaction equilibria. Second law and production of power from heat is also covered. Prerequisite CME 303.

CME 308 Chemical Reaction Engineering Lec. 3./Credit 3.
This course covers the acquisition and analysis of kinetic data for chemical reactions and the design of reactors of multiple reactor systems to carry out industrial reactions. Prerequisite: CME 307. Corequisite: CME 302.

CME 311-312 Unit Operations I-II Lec. 1./Lab 6./Credit 3.
Fundamental principles underlying Chemical Engineering operations and processes involving the transfer of momentum, heat and mass. Application of these concepts in the Chemical Engineering laboratory to realistic problems. Momentum transfer fluid flow in pipes and motion of particles in fluids. Heat transfer evaporation and heat exchange by conduction, convection and radiation, heat exchange equipment. Mass transfer equilibrium stage and differential mass transfer concepts. Prerequisite: CME 303 and CME 304, respectively.

CME 401 Engineering Thermodynamics I Lec. 2./Credit 2.
Basic definitions and development of the first law and second law of thermodynamics as it applies to non-flow and steady-flow processes; pressure-volume, temperature behavior of fluids; power and refrigeration processes. Prerequisite: CME 202, MAT 152, and CHE 402.

CME 402 Engineering Thermodynamics II Lec. 3./Credit 3.
Application of thermodynamics to fluid mixtures, solutions, vapor-liquid equilibrium, phase diagrams and chemical reaction equilibrium. Prerequisite: CHE 401.

CME 403 Chemical Reactor Design Lec. 3./Credit 3.
Homogeneous reactions; derivation of rate expressions from experimental data; design of ideal reactors for isothermal and nonisothermal operations; applications of reactor design to multiple reactor and reaction systems; heterogeneous catalysis. Prerequisites: CME 304 and CME 402.

CME 405 Process Control Lec. 3./Credit 3.
This course involves the analysis and design of chemical process control systems; feedback and feed forward controllers for a single process; stability, tuning and simulation of PID controllers. Prerequisites: CME 304, EGR 208.

CME 407-408 Chemical Process Design I and II
Lec. 2./Lab 3./Credit 3.
This two-course sequence introduces the systems viewpoint in process design and discusses process synthesis and analysis, screening of alternatives, and economic decision making. Special emphasis is placed on process simulation and use of commercial process simulators in process design. Several small exercises and one comprehensive design project. Prerequisites: CME 202, CME 304, CME 306, CME 308 for CME 407. A grade of "C" or better is required before enrolling in CME 408.

CME 409 Data Analysis and Design of Experiments
Lec. 1./Credit 1.
This course introduces the student to the application of several statistical topics of practical interest. Prerequisite: CME 308.

CME 411-412 Chemical Engineering Labs I-II
Lab 6./Credit 2.
This is a two-semester laboratory course sequence involving experiments covering the application of fundamental principles of chemical engineering to unit operations, chemical reaction engineering, and process control. Prerequisite: CME 304, CME 306, CME 308. Corequisite: CME 405, CME 409.

CME 420 Chemical Engineering Seminar Lec. 1./Credit 1.
Presentation and discussion of selected topics in chemical engineering, professionalism, career and graduate school. Each student is assigned topics of current importance to chemical engineering to prepare and present a seminar. Prerequisites: CME 304, CME 308. CME Undergraduate/Graduate

CME 503 Heterogeneous Catalysis and Reaction Engineering Lec. 3./Credit 3.
To introduce the principles and applications of heterogeneous catalysis. Catalyst preparation and characterization. Adsorption; heterogeneous kinetics. Diffusion and reaction in porous catalyst particles. Applications to design of catalytic chemical reactors. Industrial catalytic processes. Prerequisites: CME 304, CME 403 (or CME 302, CME 308).

CME 506 Fundamentals of Combustion Lec. 3./Credit 3.
To teach fundamental processes occurring in combustion and related phenomena. Topics covered include a review of thermodynamics, kinetics and compressible gas dynamics, equations of the flow of reactive gas mixtures, chain reactions, chemical aspects of explosions, detonations and deflagrations, premixed flames (structure and propagation of laminar and turbulent flames, ignition, quenching, flashback and flowoff), laminar and turbulent diffusion flames, fluidized combustion, combustion safety. Prerequisites: CME 303, CME 402 (or CME 302, CME 307).

CME 507 Biochemical Engineering Lec. 3./Credit 3.
To impart an integrated knowledge of biological properties and principles, and of Chemical Engineering methodology. Topics covered include basics of microbiology and biochemical, enzyme technology, immobilized enzymes, metabolic stoichiometry and energetics, molecular genetics, mathematical models for single species, structured models, transport phenomena in bioprocess systems, bioreactors, product recovery operations, control of biochemical processes, models of mixed populations of cells. Prerequisite: CME 301 (or CME 306); Corequisite: CME 308 (or CME 403).

CME 510 Modeling of Chemical Engineering Processes
Lec. 3./Credit 3.
A unified approach to mathematical description of Chemical Engineering systems. Classification of resulting models. Solution by various analytical methods. Determination of numerical values of model parameters. Prerequisite: CME 302 (or CME 304); Corequisite: CME 308 (or CME 403).

CME 512 Optimization Lec. 3./Credit 3.
To teach mathematical programming techniques and their application to Chemical Engineering. Topics covered include modeling and formulation of optimization problems, basics of optimization theory and methods (linear and constrained nonlinear programming, unconstrained optimization, optimization of discrete processes), applications of optimization (heat exchanger and separation networks, chemical reactor optimization, optimization in large-scale plant design and operation), easy-to-use computer packages and optimization with a process simulator. Corequisite: CME 407.

CME 521 Coal Science and Application Lec. 3./Credit 3.
Physical and chemical properties of coal, methods of analysis and characterization. Industrial processes for cleaning, gasifying and liquefying coal to produce cleaner fuels. Prerequisite: CME 302 (or CME 304); Corequisite: CME 308 (or CME 403).

CME 522 Polymer Science Lec. 3./Credit 3.
Synthesis, properties and fabrication of polymeric materials of industrial importance. Prerequisite: CME 302 (or CME 303).

CME 523 Industrial Pollution Control Lec. 3./Credit 3.
Study of water, air and thermal pollution control methods. Application to solution of pollution problems in chemical industry. Corequisite: CME 302 (or CME 304).

CME 524 Safety and Loss Prevention Lec. 3./Credit 3.
To increase awareness, interest, motivation, and knowledge in safety and loss prevention. Topics covered include case histories, management for safety, designing for safety, hazard identification, hazard assessment, hazard warning structure, reliability engineering, pressure systems, emission and dispersion, toxicity and toxic release, fire models and fire protection, fault propagation, safety in plant operation, personal safety. Corequisite: CME 407.

COM (Communication)

COM 103 Oral Communication Lec. 3./Credit 3.
A one-semester course in Speech Communication involving a participative learning experience. Emphasis will be placed on intrapersonal, interpersonal and public communication. Class projects, situational exercises, public speaking, group discussion and dyadic and nonverbal communication are used as reinforcement material. Passing grade is "C."

COM 121 Voice and Diction Lec. 3./Credit 3.
A study and application of proper techniques for achieving effective voice and diction. Topics include vocal quality, articulation, loudness, expressiveness and pitch. Class sessions include lectures, in-class presentations and exercises. In addition, students will monitor their progress through audio recordings made during the semester.

COM 226 Masterpieces of Oratory Lec. 3./Credit 3.
An examination of models of eloquence from antiquity to the present. Emphasis will be placed on understanding and appreciating the persuasive impact of the spoken word. Orators who may be examined include: Mark Anthony, Cicero, Sir Winston Churchill, Mahatma Gandhi, Adolf Hitler, Daniel Webster, Abraham Lincoln, John F. Kennedy and Dr. Martin Luther King, Jr.

COM 227 Interviewing Lec. 3./Credit 3.
A study of the interviewing process and its components. Practical training and experience will be provided in conducting different types of interviews (e.g., the information, research, selection, counseling and persuasive interviews).

COM 236 Public Speaking Lec. 3./Credit 3.
A study of the principles and methods of preparing and presenting public speeches. Special emphasis is given to informative, persuasive, and special occasion speeches.

COM 237 Rhetorical Theory Lec. 3./Credit 3.
An analysis of selected theories of public address and rhetoric. Emphasis will be placed on the major contributors who are of historical or contemporary importance.

COM 242 Business and Professional Communication Lec. 3./Credit 3.
A study of theory, research and application strategies—focusing on communication problems, patterns, and practices in business, government and professional organizations.

COM 247 Transcultural Communication Lec. 3./Credit 3.
An examination of the similarities and the differences that influence communication across social and cultural boundaries.

COM 366 Nonverbal Communication Lec. 3./Credit 3.
A comprehensive analysis of the theoretical and empirical factors of nonverbal behaviors. Emphasis is on the complexities of the verbal and nonverbal linguistic code in the process of encoding and decoding messages. Research projects relating to Afro-American nonverbal behavior are executed.

COM 249 Communication Education Lec. 3./Credit 3.
A study and development of skills in classroom communication by analyzing teacher-student and student-student verbal and nonverbal interaction. The design, development and use of teaching materials, instructional media and workshops will also be covered.

COM 250 Interpersonal Communication Lec. 3./ Online/Credit 3.
A survey of the theories and principles which explain how people relate to and interact with each other on a one-to-one basis. Methods for developing, improving, and ending relationships will be explored.

COM 297 Special Topics Lec. 3./Credit 3.
A series of courses offered periodically to allow students to explore, indepth, a comparatively narrow subject in Speech Communication. Offerings include: Gender Communication, Communication for Health, and Allied Professions and Telemarketing.

COM 300 Strategies of Persuasion Lec. 3./Credit 3.
A study of the theory and practice of persuasion communication in the democratic society, including formal and informal persuasive speaking, types of proof and the ethics of persuasion. Emphasis will be placed on practicing the preparation and presentation of persuasive speeches.

COM 322 Small Group Communication Lec. 3./Credit 3.
A course designed to give an overview of small group communication processes and practical advice on effective small group participation. Topics include small group formats and methods of discussion, problem solving and conflict management.

COM 323 Argumentation and Debate Lec. 3./Credit 3.
Basic forms of logic and rules of evidence. Briefing, persuasion, audience analysis and public speaking will be taught. Debates, discussions and other meetings will be required.

COM 350 Research Methods in Theatre Arts Lec. 3./Credit 3.
Involves basic research methods and procedures and critical analysis of selected research documents. Presents basic research designs in communication, including statistical and computer procedures for analyzing data.

COM 360 Communication for Radio and Television Lec. 3./Credit 3.
A course providing practical experience in radio and television announcing. Projects include interpreting copy, speaking ad lib, commercial and PSA announcing, conducting interviews and presenting newscasts.

COM 368 Theories of Communication Lec. 3./Credit 3.
An examination of the function, structure and processes of human communication by comparing and contrasting various communication theories.

COM 369 Rhetorical Criticism Lec. 3./Credit 3.
A study of the principles of rhetorical criticism and selected rhetorical critiques. Students will also select, complete and defend an analysis of historical or contemporary discourse.

COM 372 Political Communication and Public Opinion Lec. 3./Credit 3.
A study of the nature, function and influence of rhetoric in American society. Students will examine various movements, issues and events to identify the peculiar characteristics of public dialogue which reflect, reinforce and alter public opinion.

COM 426 Seminar in African American Oratory Lec. 3./Credit 3.
A historical/critical review of, and conceptual framework for, African American rhetoric. In addition to the readings, films and audio recordings, oral presentations will be given. Students are required to select, prepare and defend an analysis of African American rhetoric. Speakers to be examined include Prince Hall, Maria Stewart, Sojourner Truth, Frederick Douglas, Martin R. Delaney, Booker T. Washington, W. E. B. DuBois, Marcus Garvey, Richard Cain, Rev. Martin Luther King, Jr., Malcolm X, Angela Davis, Barbara Jordan, Jesse Jackson and Louis Farrakhan.

COU (Counseling) Graduate Only

COU 602 Abnormal Behavior and Psychopathology
Lec 3./Credit 3.

An introductory study of principles of mental health, including prevention, intervention, consultation, education, and advocacy. Discussion of causes and processes in the development and treatment of mental disorders. Specific principles and models of biopsychosocial assessments, case conceptualization, and theories of human development and concepts of psychopathology leading to diagnoses and appropriate treatment plans will be discussed. Basic classifications, indications, and contraindications of psychopharmacological medications will be discussed.

COU 603 Counseling with Diverse Populations
Lec 3./Credit 3.

Addresses the effects of racism, sexism, power, privilege, culture, age, religion, disability, and ethnicity on personality development and behavior with implications for seeking clinical mental health counseling. Discusses multicultural and pluralistic trends to include attitudes, beliefs, understandings, and acculturative experiences to include spirituality. Counselors' roles in social justice, advocacy and conflict resolution, cultural self-awareness, the nature of biases, prejudices, processes of intentional and unintentional oppression and discrimination, and other culturally supported behaviors that are detrimental to the growth of the human spirit, mind, or body will be discussed.

COU 604 Life Span Development Lec 3./Credit 3.

Theories of individual and family development and transitions across the life span will be discussed. Topics will include human behavior, neurobiological behavior, personality, and strategies for facilitating optimum development. Theories and models of individual, cultural, couple, family, and community resilience will be discussed.

COU 605 Human Sexuality Counseling Lec 3./Credit 3.

Provides an understanding of basic treatment techniques for sexual dysfunction, sexual disorders, and sexual diseases. Human sexuality issues and their impact on family and couple functioning, and strategies for their resolution will be discussed. Attention given to legal and ethical issues in the areas of sexual function and reproduction rights.

COU 606 Treating the Substance Abuser Lec 3./Credit 3.

Theories and etiology of addictions and addictive behaviors will be discussed. An overview of issues to include spirituality and self-help groups relating to treating addictions is provided. Common drugs of abuse, symptoms of abuse and dependence, assessment tools, and treatment methods are examined. History and development of addiction counseling and the importance of vocation, family, and social networks will be discussed. Specific ethical and legal standards will be discussed.

COU 610 Identity, Ethics and Legal Aspects of Counseling
Lec 3./Credit 3.

Provides an overview of the history and philosophy of the counseling profession, including significant events, professional roles, professional organizations and credentialing, advocacy, and ethical and legal standards. Provides an understanding of counseling and consultation processes to include characteristics and behaviors to influence helping processes, introduction to counseling theories and system perspectives along with legal perspectives. Counseling supervision models, practices and processes will be introduced and discussed. Discusses the integration of technological strategies and applications within counseling and consultation processes. Examines current system of intervention and engages students in analysis from the perspective of its usefulness to counseling. This course will include reflective exercises for self-assessment, experiential experiences with counselors, and a growth model for professional development.

COU 611 Pastoral Helping Relationship Lec 3./Credit 3.

Introduces the student to counseling skills necessary for pastoral care situations. Such counseling skills as attending, responding, and initiating skills are discussed. An introduction to spiritual direction and an experience with a spiritual director will be provided. Legal and ethical issues will be discussed.

COU 612 Career Development Lec 3./Credit 3.

An introduction to career development theory and practice, and assessment measures utilized in career counseling is provided. Interrelationships among and between work, family, and other life roles and factors including the role of diversity and gender in career development will be discussed. Transitions throughout life will be discussed. Career development program planning, resources, information systems, and techniques will be discussed. In addition, factors influencing career choice and job satisfaction, occupational trends, changes in the workplace, and appropriate counseling interventions are discussed. Also, a specific focus will be provided for legal and ethical issues facing all counselors.

COU 613 Diagnosis and Treatment to include Addictions
Lec 3./Credit 3

Discussion of the history, philosophy, and trends in clinical mental health counseling to include professional organizations, preparation standards and credentials. Development of an understanding of general principles and methods of case conceptualization, assessment, and/or diagnoses of mental and emotional status with a specific emphasis on substance abuse and addictions. Strategies for selecting, administering, and interpreting assessment and evaluation instruments will be discussed. Procedures for conducting intake interviews, mental status examinations, and psychological assessments will be demonstrated. Management of mental health services and programs will be discussed. Clinical supervision, ethical and legal considerations of mental health counseling will be discussed.

COU 614 Community Mental Health and Welfare Services
Lec 3./Credit 3

Introduction of professionals to community social welfare and other agencies (private and public) functioning in the areas of family service, public and private assistance, mental hygiene, protective and correctional care, pastoral care, and health services. Application of research and program evaluation will be discussed. Course will focus on visiting and experiencing these diverse functions.

COU 616 Theory and Practice of Counseling and Psychotherapy Lec 3./Credit 3.

A detailed introduction and critical evaluation of contemporary. theories of counseling used to address educational, vocational, and personal problems. Behavioral, solution-focused/brief therapy will be focused upon to meet the needs of contemporary society. Aspects of crisis management will form the focus of the brief therapy. Interviewing and counseling skills, system perspective, and consultation will be discussed. This course is designed for counselors, teachers, administrators, clergymen, and others who counsel individuals in a variety of settings. Specific ethical and legal standards will be discussed. The student will perform 10 hours in a community setting observing counseling practices.

COU 618 Counseling Practicum Tutorial 3./Credit 3.

Students must complete supervised practicum experiences that total a minimum of 100 clock hours. The practicum provides for the development of counseling skills under supervision. This practicum includes direct service with clients both in individual counseling and group work. Weekly interaction that averages one hour per week of individual and/or triadic supervision by a program faculty, a student supervisor, or a site supervisor who is working in biweekly consultation with a program faculty member. Audio/video recordings or live supervision of the student's interaction with clients must be conducted. A formal evaluation will be conducted. Classes will be limited to approximately 12 students. Specific ethical and legal standards will be discussed. This course may be taught in conjunction with internship courses. Prerequisite: COU 619.

COU 619 Group Process in Counseling
Lec 3./Credit 3.

This is an experiential course on the leadership, dynamics, methods, theories and techniques used for group counseling. Planning and implementing groups for a variety of populations and purposes, developing group facilitation skills, and increasing self-awareness are emphasized. Didactic focus is on psycho-educational groups. The student will perform 10 hours in small group settings.

COU 620 Marriage and Family Counseling
Lec 3./Credit 3.

A course in which the theories and techniques of marriage and family counseling are studied and the techniques are practiced. Provides an overview of the history of marital, couple, and family counseling/therapy. A systems perspective that provides an understanding of family and other systems theories and major models of family and related interventions will be introduced. Implications of family, social networks, and community systems in the treatment of mental and emotional disorders will be discussed.

COU 621 Advanced Group and Family Counseling
Lec 3./Credit 3.

Development of group leadership skills through group experiences in class and in the field. In depth studies of group counseling theories. Develop a systems perspective that provides an understanding of family and other systems theories and major models of related interventions. Systems theory and consultation will be discussed as it relates to the group setting.

COU 622 Assessment and Appraisal in Counseling
Lec 3./Credit 3.

Survey of tests of ability, interest, aptitude and personality that are most useful to the counselor will be introduced with a specific emphasis on addictions and substance abuse. A historical perspective concerning the nature and meaning of assessment will be provided. Statistical concepts to include scales of measurement, measures of central tendency, reliability and validity will be introduced. Norm-referenced and criterion-referenced tests will be discussed. Assessment and evaluation will be approached from both the individual and group perspective.

COU 624 Theories of Learning, Personality and Temperament Lec 3./Credit 3.

Evaluation of major learning, personality, and temperament developmental theories across the lifespan, cultures, ethnicities, race, socioeconomic status, and gender. Specific focus will be given to environmental factors influence on development and their influences on developmental outcomes such as behavior problems and cognitive development. Strategies for facilitating optimum development will be discussed.

COU 626 Crisis Intervention and Grief Counseling
Lec 3./Credit 3.

An overview of issues relating to crisis situations to include initial interventions through grief counseling. The course will discuss assessing and reacting to various crises involving suicide, homicide, intimate partner violence, sexual assault/abuse, bereavement/grief, substance abuse, natural disasters, war, and terrorism. Roles and responsibilities as a member of an interdisciplinary management response team will be discussed. Ethical issues will be discussed.

COU 630 Analysis of Behavioral Data Lec 3./Credit 3.

Inferential procedures in treatment of research data. The use of existing national data sets will be emphasized. The importance of research and opportunities and difficulties in conducting research in the counseling and health professions will be discussed. The use of research to improve counseling effectiveness and health programs will be discussed. This course will use statistical software packages to exploit data analyses. This course will be taught in conjunction with NUR 670.

COU 631 Foundations of School Counseling, Ethics, and Techniques Lec 3./Credit 3.

History, philosophy, and current trends in school counseling and educational systems. Role, function, and professional identity of the school counselor in relation to the roles of other professional and support personnel in the school will be discussed. Effects of atypical growth and development, health and wellness, language, ability level, multicultural issues, sexual orientation, and factors of resiliency on student learning and development will be discussed. Models of school counseling programs will be discussed. Critical analysis of techniques that are applicable to the school setting will be investigated. Research, program evaluation, outcome assessment specific to the school setting will be discussed. Ethical and legal considerations related specifically to the practice of school counseling will be discussed.

COU 633 Contextual Dimensions of School Counseling Lec 3./Credit 3.

Advocacy for all students and for effective school counseling programs will be discussed. Coordination, collaboration, referral, and team-building efforts with all involved participants to promote and facilitate successful student development. Develop knowledge and understanding of community and institutional opportunities that enhance, as well as barriers that impede student academic, career, and personal/social success. The course will discuss assessing and reacting to various crises involving suicide, homicide, intimate partner violence, sexual assault/abuse, bereavement/grief, substance abuse, natural disasters, war, and terrorism. Counseling techniques and advocacy programs will be discussed.

COU 634 School Counseling Classroom Management Lec 3./Credit 3.

Effective classroom management strategies will be discussed, demonstrated and practiced with an emphasis on designing, implementing and evaluating strategies. Conscious discipline and differentiated instructional strategies will be discussed along with preventive, supportive and corrective discipline. The course addresses diverse approaches based upon behavioral, cognitive, affective, social and ecological theory and practice. Students will be expected to develop their own personal system of discipline.

COU 635 School Counseling Classroom Management, Curriculum Design and Lesson Plan Development Lec 3./Credit 3.

Design of the curriculum, development of lesson plans, and differentiated instructional strategies will be discussed along with the principles of curriculum construction and their significance to curriculum planners. The relationship of the school counseling program to the academic mission of the school will also be discussed. Students will select and apply a model of curriculum evaluation. Effective classroom management strategies will be discussed, demonstrated and practiced with an emphasis on designing, implementing and evaluating strategies. Conscious discipline and differentiated instructional strategies will be discussed along with preventive, supportive and corrective discipline. The course addresses diverse approaches based upon behavioral, cognitive, affective, social and ecological theory and practice. Students will be expected to develop their own personal system of discipline.

COU 639 School Counseling Internship Tutorial 3./Credit 3.

Students must complete a supervised internship of 600 clock hours that will only begin after completion of the required practicum. These clock hours will have a minimum of 300 hours in K-12 grades. This internship will include a minimum of 120 clock hours of direct service with clients with supervision at an approved site. A formal evaluation will be performed. Classes will be limited to approximately 12 students. Specific ethical and legal standards will be discussed. This course may be taught in conjunction with practicum and/or internship courses. This is a pass/fail course. Prerequisite: COU 618.

COU 640 School Counseling Lec 3./Credit 3.

Experiential course in individual and small group counseling approaches that promote school success; approaches to peer facilitation to include peer helper, peer tutor, and peer mediation programs; and issues that may affect the development and functioning of students. Developmental approaches to assist all students and parents at educational transition points and approaches to recognizing and assisting children and adolescents who may use alcohol or other drugs will be discussed. Leadership within the school building will be discussed.

COU 641 College Student Development, Ethics, and Techniques Lec 3./Credit 3.

Development, management and provision of personnel counseling services facilitating the growth and development of students during their college experience. Topics will include history and philosophy of student affairs; the purpose and function of student affairs in higher education; historical and contemporary theories of student affairs; characteristics of traditional and nontraditional students; and methods of needs analysis that are applicable to college student populations. Multicultural issues along with ethical and legal considerations will be discussed. Emergency management plans and crises will be discussed. Experiential focus will be provided.

COU 642 Student Affairs Program Lec 3./Credit 3.

Theories and models of organizational behavior along with leadership and approaches to organizational change will be discussed. Development of student leaders and procedures for promoting positive interpersonal relationships will be discussed. Discussion and development of models for designing, managing, and evaluating student affairs programs, including the use of technological applications and systematic assessment techniques that can be used in a higher education environment. Multicultural issues along with ethical and legal considerations will be discussed. Experiential focus will be provided.

COU 649 College Student Development Counseling Internship Tutorial 3./Credit 3.

Students must complete a supervised internship of 300 clock hours that will only begin after completion of the required practicum. This internship will include a minimum of 120 clock hours of direct service with clients with supervision at an approved site. A formal evaluation will be performed. Classes will be limited to approximately six students. Specific ethical and legal standards will be discussed. This course may be taught in conjunction with practicum and/or internship courses. This is a "pass/fail" course.

COU 659 Community Mental Health Internship Tutorial 3./Credit 3.

Students must complete a supervised internship of 300 clock hours that will only begin after completion of the required practicum. Students must complete a supervised internship of 300 clock hours that will only begin after completion of the required practicum. This internship will include a minimum of 120 clock hours of direct service with clients with supervision at an approved site. A formal evaluation will be performed. Classes will be limited to approximately six students. Specific ethical and legal standards will be discussed. This course may be taught in conjunction with practicum and/or internship courses. This is a pass/fail course.

COU 661 Integrative Issues in Spiritual Counseling Lec 3./Credit 3.

Provides an overview of how the helping profession within a spiritual foundation can aid in the healing of individuals, families, and our communities and neighborhoods. A focus will be provided on application of existential and biblical principles to psychological theories and counseling methodologies.

COU 662 Spiritual Direction Lec 3./Credit 3.

Introduction to the ministry of spiritual direction: nature of spiritual direction; preparation and role of spiritual director, relationship of spiritual direction to counseling, and current issues in spiritual direction. Formulation of personal approach to spiritual direction. Lecture will include personal experience format.

COU 664 Community Mental Health Internship Tutorial 3./Credit 3.

Students must complete a supervised internship of 300 clock hours that will only begin after completion of the required community agency internship. This internship will include a minimum of 120 clock hours of direct service with clients with supervision at an approved site. A formal evaluation will be performed. Classes will be limited to approximately five students. Specific ethical and legal standards will be discussed. This course may be taught in conjunction with practicum and/or internship courses. This is a pass/fail course.

COU 669 Pastoral Community Mental Health Counseling Internship Tutorial 3./Credit 3.

Students must complete a supervised internship of 300 clock hours that will only begin after completion of the required practicum. Students must complete a supervised internship of 300 clock hours that will only begin after completion of the required practicum. This internship will include a minimum of 120 clock hours of direct service with clients with supervision at an approved site. A formal evaluation will be performed. Classes will be limited to approximately six students. Specific ethical and legal standards will be discussed. This course may be taught in conjunction with practicum and/or internship courses. This is a pass/fail course.

COU 671 Introduction to Research and Program Evaluation Lec 3./Credit 3.

Introductory course that provides an understanding of research methods, statistical analyses, needs assessment, and program evaluation. The course includes discussions regarding the importance of research in the counseling profession, research methods, the use of technology and statistical methods, needs assessment, and the use of research to improve counseling effectiveness. Ethical and legal aspects of research will be discussed.

COU 672 Addiction Counseling Lec 3./Credit 3.

Roles and settings of addiction counselors especially with special populations to include adolescents, women, ethnic groups and the elderly will be discussed. Risk factors, co-occurring disorders, and education programs will be discussed. A focus will be provided on classifications, indications, and contraindications of commonly prescribed psychopharmacological medications for referrals and consultation. Professional organizations, preparation standards, and credentials relevant to the practice of addiction counseling will be identified.

COU 673 Addictions Lec 3./Credit 3.

Theories and models of addiction related to substance use to include evaluation and treatment planning will be discussed. Cultural factors relevant to addiction and addictive behavior to include legal ethical procedures will be discussed. Factors that increase the likelihood for a person, community, or group to be at risk for or resilient to psychoactive substance use disorders will be identified.

COU 674 Addiction Counseling Practicum Tutorial 3./Credit 3.

Students must complete supervised addiction counseling practicum experiences that total a minimum of 100 clock hours. The practicum provides for the development of addiction counseling skills under addiction counselor supervision. This practicum includes direct service with clients both in individual counseling and group work, weekly individual and group interaction with a supervisor, and a formal evaluation. Classes will be limited to approximately six students. Specific ethical and legal standards will be discussed. This course may be taught in conjunction with other practicum and/or internship courses.

COU 675 Addiction Counseling Internship
Tutorial 3./Credit 3.
Students must complete a supervised internship of 300 clock hours that will only begin after completion of the required addiction counseling practicum. This internship will include a minimum of 120 clock hours of direct service with clients with supervision at an approved site. A formal evaluation will be performed. Classes will be limited to approximately six students. Specific ethical and legal standards will be discussed. This course may be taught in conjunction with internship courses. This is a pass/fail course.

COU 698 Counseling Internship Tutorial 3./Credit 3.
Students must complete a supervised internship of 300 clock hours that will only begin after completion of the required practicum. This internship course will be used as an addendum to other Internship courses to allow the student flexibility in attaining the required 600 clock hours and the 6 semester hour credits. The internship will include a minimum of 120 clock hours of direct service with clients with supervision at an approved site. A formal evaluation will be performed. Classes will be limited to approximately five students. Specific ethical and legal standards will be discussed. This course may be taught in conjunction with practicum and/or internship courses. This is a pass/fail course. Prerequisite: COU 618.

COU 699 Independent Study Credit 3-6

COU 702 Master's Comprehensive Examination Credit 1
This examination is "pass/fail."

COU 710 Identity, Ethics and Legal Aspects of Counseling
Lec 3./Credit 3.
Provides an overview of the history and philosophy of the counseling profession, including significant and events, professional roles, professional organizations and credentialing, advocacy, and ethical and legal standards. Provides an understanding of counseling and consultation processes to include characteristics and behaviors to influence helping processes, introduction to counseling theories and system perspectives along with legal perspectives. Counseling supervision models, practices and processes will be introduced and discussed. Discusses the integration of technological strategies and applications within counseling and consultation processes. Examines current system of intervention and engages students in analysis from the perspective of its usefulness to counseling. This course will include reflective exercises for self-assessment, experiential experiences with counselors, and a growth model for professional development.

COU 721 Advanced Group and Family Counseling
Lec 3./Credit 3.
Development of group leadership skills through group experiences in class and in the field. In depth studies of group counseling theories. Develop a systems perspective that provides an understanding of family and other systems theories and major models of related interventions. Systems theory and consultation will be discussed as it relates to the group setting. This course will be taught in conjunction with COU 621.

COU 722 Advanced Counseling Theory and Techniques
Lec 3./Credit 3.
Foundations of mental health counseling will be discussed to include ethical and legal considerations (AMHCA Code of Ethics). Critical review of theories and practice of the techniques and principles of counseling will be conducted. Career development, group work, crisis/disaster response, systems and consultation will be discussed. Evaluation of counseling effectiveness will be discussed.

COU 725 Grant Writing Lec 3./Credit 3.
This course focuses on the mechanics of grantsmanship, including public and private sources. Students will conduct Internet searches weekly as they determine a myriad of different funding sources. Students will explore the "how-to" of writing research, training and demonstration grants. A completed proposal suitable for submission will be required of all enrollees. Peers and selected faculty members will conduct critiques of the proposals. This course will be taught in conjunction with NUR 725.

COU 799 Independent Study Credit 3-6

COU 801 Counseling Leadership and Advocacy
Lec 3./Credit 3.
Theories, skills, and models of counseling leadership and advocacy will be discussed. Multicultural issues as they relate to social change theories, and current topical and political issues in counseling will be discussed.

COU 805 Human Sexuality Counseling Lec 3./Credit 3.
Provides an understanding of basic treatment techniques for sexual dysfunction, sexual disorders, and sexual diseases. Human sexuality issues and their impact on family and couple functioning, and strategies for their resolution will be discussed. Attention given to legal and ethical issues in the areas of sexual function and reproduction rights.

COU 816 Qualitative Methods of Research Lec 3./Credit 3.
This course focuses on qualitative methods of research. Emphasis is placed on the collection and analysis of qualitative data by using case study, survey, phenomenologic, grounded theory; and ethnographic, and historical methods of inquiry. This course will be held simultaneously with NURO 716.

COU 824 Theories and Practice of Counseling Supervision
Lec 3./Credit 3.
Topics will include theories and practice of counselor supervision to include ethical and legal considerations. Supervision of the Masters level practicum will form an integral part of the course.

COU 826 Research and Program Evaluation
Lec 3./Credit 3.
The focus of the course will be needs assessment. Single-case designs, action research, quantitative and qualitative research methods will be discussed. Introduction to program evaluation and outcome-based research will be provided. The course will be experiential in developing a program evaluation within the community.

CRJ (Criminal Justice and Criminology)

CRJ 301 US Cyber Security Law and Policy Seminar
Lec. 3/Credit 3.

The objective of this course is to understand the U.S. national cyber security strategies and the legal framework of combating cybercrime. Students will learn the roles and responsibilities of the President and Congress in developing cyber security policy strategies; critically examine the information security laws and policies of the United States since 1965; and study the Supreme Court decisions on the nature of electronic evidence and Fourth Amendment issues on computer search and privacy.

CRJ 302 Global Cyber Security Law and Policy Seminar **Lec. 3/Credit 3.**

This course will provide an understanding of the global institutions such as the United Nations, Council on European Convention on Cyber Crime, NATO, OECD, the European Union (EU), International Telecommunications Union (ITU), and the INTERPOL and their influence on international cyber security laws and standards.

CRJ 303 Cyber Security and Ethics Seminar
Lec. 3/Credit 3.

This course will provide an understanding of the ethical principles related to cyber security, cyber investigation and cyber prosecution. The course will focus particularly on three principles: respect for persons, beneficence, and justice.

CRJ 304 Cyber Security in Public Organizations
Lec. 3/Credit 3.

This course will provide an understanding of cyber security issues and principles related to large governmental organizations such as the DOD, DHS, FBI, CIA, DHHS, DOE, and the DOS. Students will learn to assess all domains of security interact to achieve effective system-wide security at the enterprise level.

CRJ 305 Criminal Justice System Lec. 3./Credit 3.

An overview and introduction to the criminal justice system. The major components of police, courts and corrections are examined. The course focuses on the various processing stages, practices and personnel of the criminal justice system. Examines historical and contemporary core elements of the criminal justice system; including the police, courts, corrections and juvenile and adult justice systems.

CRJ 306 Fundamentals of Criminal Law and Procedure
Lec. 3./Credit 3.

Examines the historical, constitutional, and legal principles applicable to substantive criminal law. Analyzes the definition of criminal law, elements of major crimes, general principles of criminal responsibility, punishment, and the conditions that may excuse an individual from criminal liability or mitigate punishment. Also, this course provides an overview of the general body of the procedures used by law enforcement, prosecutors and the court system to prosecute violations of the law, covering relevant Federal and state constitutional and statutory provisions along with the structure of the courts.

CRJ 307 Cyber Espionage, Cyber Terrorism and Hacktivism Lec. 3/Credit 3.

This course will provide an understanding of the meanings of the concepts of cyber terrorism, cyber espionage, and hacktivism as they are related to issues of criminal justice and cyber security. Students will be able to understand the political nature and dimensions of cyber war and cyber security and the challenges they bring for US national security, defense, and homeland security.

CRJ 332 Corrections Lec. 3./Credit 3.

The course demonstrates an understanding of the operations of the correctional institution; discusses various alternatives to incarceration; the treatment and rehabilitation of offenders; explores current and future trends in institutional corrections; and addresses the need for correctional systems in today's society. The focus of this course is to introduce the student to correctional systems. Emphasis is placed on the historical development of correctional systems and practices, treatment of offenders, goals of corrections, and special needs of offenders in today's systems.

CRJ 333 Race, Class, and Crime in America
Lec. 3./Credit 3.

Analysis of the politics of racism and classism in the United States through the examination of major court decisions and of legislations affecting minority groups. Treatment of racial minority groups in the criminal and civil justice systems, and by courts, police and prisons will be included. Examines the controversies between race, class and crime in America, and discusses the competing definitions of race, class, crime and violence. The course investigates the legacy of slavery and the impact of restrictive immigration laws.

CRJ 335 Substance Abuse and Crime in America
Lec. 3./Credit 3.

This course focuses on the nature and scope of the relationship between drugs (including alcohol) and crime and violence, and the effect of drug legislation on the criminal justice system. The variety of theoretical and research literature on the drugs-crime relationship will be examined. Various methodological techniques for conducting research on the drugs-crime relationship are also reviewed.

CRJ 340 Juvenile Justice Lec. 3./Credit 3.

The course will provide an orientation to the issues, policies and procedures which make up our system of justice for children. The function and legal responsibilities of the Police, probation, Juvenile Court and corrections system will be studied. Emphasis will be on societal forces that bring children into the Justice System including child abuse, and gang participation as well as the legal response of mandated agencies.

CRJ 406 Cyber Intelligence and National Security
Lec. 3/Credit 3.

This course is an introduction to the role of intelligence in cyber security and in combating cybercrime. Students will gain an understanding of the key US intelligence agencies such as the Central Intelligence Agency (CIA), Defense Intelligence Agency (DIA), FBI, Homeland Security and the Department of State and their respective cyber security programs and strategies. Students will learn the art and science of intelligence analysis as applied and relevant to cyber security.

CRJ 407 Crime Scene Investigation Lec. 3./Credit 3.

This course examines the basic concepts of forensic science through advanced scientific crime solving techniques such as establishing identity through human remains. Topics include forensic anthropology; odontology; radiology; serology; DNA tracing; medical examiner procedures; wound ballistics; and trauma examinations. Emphasis is placed on physical evidence, information sources, interviews and interrogations, eyewitness identifications, crime scene reconstruction, homicide investigations, burglaries, robberies, sex crime investigations, specialized investigations, and managing criminal investigations.

CRJ 408 Cyber Crime and Homeland Security
Lec. 3/Credit 3.

This course will introduce students to different policy strategies taken by the Cyber Security Division of the Department of Homeland Security to control and combat cybercrime and cyber terrorism. Students will understand the role of new technologies, tools and techniques used by the Department of Homeland Security to secure cyberspace.

CRJ 409 The Criminalistics of Cybercrime
Lec. 3./Credit 3.

This course provides an exploration of the links between computers, deviance, and social control. Topics will include: an analysis of the technological, social, and geo-political context from which cybercrime and information warfare have emerged and the nature, extent and causes of digital deviance, such as hacking and cyberterrorism.

CRJ 410 Issues in Law Enforcement Lec. 3./Credit 3.

This elective course is a study of the organization, management, and administration of law enforcement agencies. Topics include police administration in the political arena, organizational theory, police organizational structure, leadership, organizational communication, police subsystem tasks, decision-making, performance evaluation, and organizational improvement. (i.e. racial profiling, police discretion, police brutality, police corruption).

CRJ 411 Homeland Security Lec. 3./Credit 3.

This course is an overview of the cyber security policies and orga nizations of the Department of Homeland Security (DHS). The combating of cybercrime and securing the cyber space related particularly to nation's critical infrastructures is presently one of the major functions of the DHS. The DHS's National Cyber Security Division is responsible for developing and deploying a nation-wide National Cyber Security Protection System for intrusion detention, advanced analytics, information sharing, and intrusion detention capabilities of the key federal agencies. Students in this course will learn how the DHS's National Cyber Security Protection System and other cyber security programs work, how they are organized, what techniques for cyber security they employ, and the legal framework within which they evolve.

CRJ 414 Cyber Security and Global Cyber War
Lec.3/Credit 3.

This course is an introduction to the nature and extent of cyber threats both in public and private sector organizations. The course will examine the nature of Internet penetration in different regions of the world and the way that cyber threats are accelerated. Students will learn different methods of cyber threat assessment and risk assessment.

CRJ 416 Terrorism and National Security Lec.3/Credit 3.

This course is designed to address issues in national security management. Topics introduced will include: worldwide terrorism, terrorist violence, governmental reaction to specific demands and threats with the objective of weakening established governments. The course will also identify various terrorist groups worldwide that are intent on destroying life and property by the use of explosives, weapons and other violent means.

CRJ 417 Law Enforcement in Security Lec. 3./Credit 3.

This course provides a survey of objectives and tactical issues and methods employed by those persons empowered to establish and enforce security programs. Emphasis is placed on the enforcement of required security programs involving transportation, including airports and air carriers. Specific subjects covered include the role of the law enforcement officer in security, and in emergency response, counter-terrorism, and witness interviewing.

CRJ 418 Emergency Preparation and Security Management Lec. 3./Credit 3.

This course studies the various elements involved with planning for and responding to workplace, transportation, and natural disasters and emergencies. This course will adopt an all hazards approach to the general and technical aspects of disaster planning and response including the incident management system, alarm, warning, and communications systems, evacuation, medical response, search and rescue, media and information management, and business recovery. Consideration of the security survey; communication and surveillance systems; control of personnel and visitors; the use, supervision, and training of security forces; handling civil disturbances in public buildings; and other emergencies is given.

CRJ 419 Cyber Security in Private Organization
Lec. 3/Credit 3.
This course examines the nature of cyber threats and cyber-attack in private companies and non-governmental organizations. Students will learn about the national law and federal policy strategies to protect the private sector industries from cyber-attack. Various private sector technological innovations and policies for cyber security will also be discussed.

CRJ 422 Probation and Parole Lec. 3./Credit 3.
A historical review of trends in probation and parole such as the community-based programs in work release, half-way house contract program planning, therapeutic community, and treatment team concepts in probation and parole are examined. Modern trends, such as the justice model, determinate sentencing, restorative justice, "broken windows" supervision, and intensive supervision in the adult and juvenile system are also examined. Also discussed are the role of the probation/parole officer; pre-sentence investigation; selection, supervision, and release of probationers and parolees; halfway houses, work release programs and parole clinics; reintegration of offenders in society; and future trends.

CRJ 425 Hate Crimes Lec. 3./Credit 3.
This course is intended to gain insight on the issues of hate crimes within American society and beyond; asking questions regarding its origins, and it's evolving legal concept and public policy in the criminal justice system. Furthermore, the course will pull from contemporary theories in sociology, social psychology, and psychology to develop an integrated perspective on the causes of hate and the reasons why society has not always been effective in its elimination.

CRJ 426 Cyber Security in Public Organizations
Lec.3/Credit 3.
This course will provide an understanding of cyber security issues and principles related to large governmental organizations such as the DOD, DHS, FBI, CIA, DHHS, DOE, and the DOS. Students will learn to assess all domains of security interact to achieve effective system-wide security at the enterprise level.

CRJ 427 Gender and Human Trafficking Lec. 3./Credit 3.
The course aims to provide students with a definition of trafficking in human beings as distinguished from related phenomena, and a basic understanding of the extent of trafficking in human beings at both the global and the European levels. Students will also be provided with an overview of current responses in legislation, policy and practice at the international, European and national levels. Attention will be paid to trafficking in various forms as a violation of several fundamental rights of the individual and measures to protect the human rights of trafficked persons.

CRJ 428 Child Abuse and Neglect Lec. 3./Credit 3.
This course investigates in detail the causes, consequences, and contextual factors associated with child maltreatment (abuse and neglect) and interventions for children and families. The course considers maltreatment within an ecological context and examines issues of culture and diversity (e.g., race, gender, ethnicity, socioeconomic status, sexual identity, family structure) in relation to maltreatment. It is designed for students with prior coursework in psychological research methods and child psychology or equivalent.

CRJ 499 Senior Practicum Lec. 3./Credit 3.
Capstone course designed to provide students with an opportunity to demonstrate their knowledge and apply theory to practice through a practical experience in a professional environment.

CSC (Computer Science)

CSC 100 Problem Solving in Computer Science
Lec. 3./Credit 3.
Explores the role of software, software paradigms, and software systems. Emphasis on specification and analysis of problems, designing solutions to problems, and the testing of problem solutions. Introduces fundamental concepts of computer organization and operation. Examines hardware (processor, keyboard, disk drives, and printers), operating systems, and editors.

CSC 110 BASIC Programming Lec. 3./Credit 3.
Logical basis of digital computer systems, algorithms, flow charts, programs, and program structure. Emphasis on computer knowledge using BASIC as a programming language. Application to contemporary problems. Prerequisite: Permission of the Department Chair.

CSC 120 Introduction to Computers
Lec. 3./Online/Credit 3.
This course helps the student understand how computers can be used to enhance his or her personal, academic or professional life. A hands-on approach is used to introduce students to various software packages for word processing, spreadsheet applications, and database management.

CSC 151 Computer Programming Lec. 3./Lab 1./Credit 4.
Computer basics; goals of quality software; concepts of input/output, constants, variables, expressions; program control structures including iterations, sequence, selection; concepts of object oriented programming; use of a high level language; concepts of event-driven programming; introduction to Graphical User Interface components; introduction to input/output for files; introduction to arrays; ethical principles in computing. Corequisite: MAT 117 or above.

CSC 152 Computer Programming II Lec. 3./Credit 3.
Problem solving techniques. Principles of good programming style, documentation, and robustness. Introduction to Data Structures. Object-Based and Object-Oriented Programming. Exception Handling. Files and Streams. Ethical Issues in Computing. Prerequisite: CSC 151.

CSC 191 Introduction to Research Topics in Computer Science Pjt. 3./Credit 1-3.
Designed for freshman level undergraduates. Emphasis will be placed upon introduction to areas of computer science research, regular attendance at appropriate seminars, techniques of literature searches, and background study. This course may be taken twice. Prerequisite: Permission of the Department Chair.

CSC 200 Introductory COBOL Programming Lec. 3./Credit 3.
Introduction to computer programming for business applications. Emphasis on algorithm development, structured program design, testing, implementation, and documentation of business-oriented problems using COBOL as a language. Includes syntax, data and file structures, I/O media, and operating system facilities for implementing programs for report generation, data editing, table processing, and sequential file creation and access. Prerequisite: CSC 152.

CSC 202 Assembly Language Lec. 3./Credit 3.
Computer structure. Machine language and instruction sets. Assembly coding. Addressing techniques. Binary arithmetic. Storage allocation. Subroutine linkage. Relocatability and program segmentation, bit manipulation. System I/O. Macros. Prerequisite: CSC 152.

CSC 204 Computer Architecture, Systems and Organization I Lec. 3./Credit 3.
Binary number representation and arithmetic. Computer structure. Addressing techniques. Storage allocation. Subroutine linkage. Relocatability and program segmentation, bit manipulation. Operating system supplied I/O routines and interface using a systems programming language and assembly language. Macros. Prerequisite: CSC 152 and MAT 117 or above.

CSC 205 Computer Architecture, Systems and Organization II Lec. 3./Credit 3.
Intermediate logic design including truth tables, logic diagrams, Boolean functions and Karnaugh maps. Computer architecture including CPU design, memory organization, I/O processing including programmed I/O, interrupt I/O, and direct memory access. Coding. Prerequisite: CSC 204.

CSC 210 C++/Unix Programming Language Lec. 3./Credit 3.
A study of C++ programming techniques and applications. Topics include arrays, functions, character strings, pointers, bit operations, records, preprocessor, and file handling.
Prerequisite: CSC 152.

CSC 213 Introduction to Ada Programming Lec. 3./Credit 3.
Ada constructs for data types, branching, looping, arrays, subprograms, functions and procedures, recursion, fixed records, linked lists and tree structures. Basic concepts for packages, separate compilation, exceptions, and file I/O. Prerequisite: CSC 152.

CSC 215 Discrete Structures Lec. 3./Credit 3.
Set theory, logic and combinatorics. Relations and functions. Proof techniques, including mathematical induction. Introduction to graph theory. Ethical principles in computing. Prerequisite: CSC 152 and MAT 117 or above.

CSC 220 LISP Lec. 3./Credit 3.
Topics include LISP data structures, built-in LISP functions including mapping functions. LISP programming techniques are illustrated with examples from artificial intelligence and symbolic manipulation application areas. Prerequisite: CSC 152 and MAT 117 or above.

CSC 221 FORTRAN Programming Lec. 3./Credit 3.
Study of FORTRAN language with emphasis on data representation. Control structures and iteration, block structures, subprograms, and debugging. Scientific and mathematical problem formulations. Corequisite: MAT 117 or above.

CSC 251 Data Structures and Algorithm Analysis I Lec. 3./Credit 3.
Representation of compiler-defined data structures. Contiguous, linked, and hashed representations. Empirical and abstract analysis of time and space of competing representation. Space optimization. Specification, design, implementation, and verification of linear and hierarchical; abstract data types, including stacks, lists, queues, and trees. Basic techniques to algorithm design and analysis; ethical principles in computing. Prerequisite: CSC 152. Corequisite: CSC 215.

CSC 252 Data Structures and Algorithm Analysis II Lec. 3./Credit 3.
An in-depth survey of data structures and algorithms, exploring their design, running efficiency, and applications. Advanced methods for internal and external sorting and searching. Implementation of relational data types including directed and undirected graphs. Advanced algorithms, which may include parsing, breadth-first and depth-first graph traversals, minimum weighted paths and information flow analysis; ethical principles in computing.
Prerequisites: CSC 204, CSC 215, and CSC 251.

CSC 291 Basic Research Topics in Computer Science Sem./Pjt./Credit 1-6.
Designed for sophomore level undergraduates. Emphasis will be placed upon introduction to basic techniques of conducting research and literature review, regular attendance at selected seminars, and directed work on a research project in computer science. This course may be taken twice. Prerequisite: Permission of the instructor.

CSC 300 Co-op Work-Study Experience Credit 3-12.
Employment or training program in government or industry in which student makes significant use of computer science skills. Prerequisites: CSC 205, CSC 252, and/or Permission of the Department Chair.

CSC 301 Operating Systems I Lec. 3./Credit 3.
Introduction to file systems with an emphasis on file organization techniques. Multiprogramming and CPU scheduling. Memory management and virtual memory concepts. Deadlocks and recovery techniques. Process synchronization and interprocess communication. Prerequisite: CSC 205 and CSC 251.

CSC 308 Organization of Programming Languages Lec. 3./Credit 3.
Language definition structure. Data types and structures. Control structures and data flow. Run-time environments. Interpretive languages. Lexical analysis and parsing.
Prerequisites: CSC 205 and CSC 252.

CSC 310 Simulation and Modeling Lec. 3./Credit 3.
Discrete, continuous, and hybrid simulation models. Random number generation, distribution and transformation. Model validation. Problems illustrative of the models will be solved using simulation programming languages. Prerequisite: CSC 152 and MAT 305.

CSC 316 Advanced COBOL Programming Lec. 3./Credit 3.
Structured methodology of program design, development, testing, implementation, and documentation of typical business applications. Includes file organization and access techniques, processing techniques, and the development of programs and systems of programs for batch and interactive environments. Prerequisite: CSC 200 or comparable experience in COBOL programming.

CSC 317 Microprocessors Lec. 3./Credit 3.
History and applications of microprocessors. Basic electronic principles. Logic elements, review of binary, octal, hexadecimal arithmetic. Study of the addressing modes and the instruction set for a specific chip. Machine language programming. Microprocessor hardware. Microcomputer architecture. Prerequisite: CSC 205.

CSC 323 Database Management Systems Lec. 3./Credit 3.
Introduction to database concepts. Hierarchical, network, and relational models. Data normalization. Data description languages. Query facilities. File organization. Index organization. File security. Data integrity and reliability. Not for Computer Science or Computer Information Systems majors. Prerequisites: MAT 105 or 109 or above and CSC 120.

CSC 324 Advanced Ada Programming Lec. 3./Credit 3.
Treatment of types, attributes, tasks, concurrency of taskings, packages, encapsulation/data abstraction, dynamic allocation, generics, generic facilities, exception handling, program structure and separate compilation, representation clauses and implementation features. Prerequisite: CSC 213.

CSC 325 Data Communications Lec. 3./Credit 3.
Topics include basic communication concepts, data encoding and transmission methods, OSI layers and data link control protocols, multiplexing, common carrier services, networking and switching concepts. Not for Computer Science or Computer Information Systems majors. Prerequisites: MAT 105 or 109 and CSC 120.

CSC 382 Introduction to Information Assurance Lec. 3./Credit 3.
An introduction to the various technical and administrative aspects of Information Security and Assurance. This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. The purpose of the course is to provide the student with an overview of the field of Information Security and Assurance. Students will be exposed to the spectrum of Security activities, methods, methodologies, and procedures. Coverage will include inspection and protection of information assets, detection of and reaction to threats to information assets, and examination of pre- and post-incident procedures, technical and managerial responses and an overview of the Information Security Planning and Staffing functions.

CSC 391 Intermediate Research Topics in Computer Science Sem./Pjt./Credit 1-9.
Designed for junior level undergraduates. Emphasis will be placed upon conducting directed research in computer science with a designated research mentor and regular attendance at selected seminars. Review basic literature search techniques. This course may be taken twice. Prerequisite: Permission of the instructor.

CSC 395 Special Topics Credit 1-4.
A treatment of advanced topics of interest in Computer Science or Mathematics not routinely covered by existing courses. May be repeated when topics vary. Prerequisite: Permission of the instructor.

CSC 400 Operating Systems II Lec. 3./Credit 3.
Concurrent processing. Problems of determinacy, deadlock, mutual exclusion, and synchronization. Resource allocation. Queuing and network control policies. Concepts of system balancing and thrashing. Protection. Advanced architecture and operating systems implementations. Introduction to telecommunications, networks, and distributed systems. Prerequisite: CSC 301.

CSC 402 Computer Architecture Lec. 3./Credit 3.
Microprocessor, minicomputer, and mainframe architecture. Memory and storage organization, I/O organization, stack computers, parallel computers, overlap and pipeline processing systems, operating system architecture. Prerequisite: CSC 301.

CSC 403 Algorithms Lec. 3./Credit 3.
Basic principles and techniques of computational complexity. Algorithms presented may include those from graph theory, pattern matching, polynomial and matrix arithmetic. Recurrence relations and dynamic programming. Emphasis on comparing algorithms.
Prerequisite: CSC 308 and MAT 152

CSC 404 Software Design and Development I
Lec. 3./Credit 3.
Introduction to software design paradigms, project management, system and software requirements, computer aided software engineering, and software design fundamentals using existing documentation for a proposed system. In-depth survey of data flow-oriented, object-oriented, data-oriented, and real-time design. Team project involving the implementation of the proposed system using structured programming, information hiding, and strength and coupling measures. Software reviews. Software testing techniques and strategies. Software maintenance. Each student will be required to make an oral presentation as part of the team project. Prerequisite: CSC 252 and Senior Standing within the major.

CSC 405 Software Design and Development II
Lec. 3./Credit 3.
Team project involving the development of a project's documentation from the Software Plan to a high-level design, using modern Software Engineering principles. CASE: tool use will be thoroughly integrated in documentation preparation. Various analysis methods, techniques, and formal methods will also be addressed. Each student will be required to make an oral presentation as part of the team project. Prerequisite: CSC 404.

CSC 406 Compiler Construction Lec. 3./Credit 3.
Review of languages and their syntax and semantics. Concepts of parsing and ambiguity. Finite state grammars and recognizers. Lexical scanners. Implementation of symbol tables. Theory and examples of context-free parsing techniques such as recursive descent, LL(k), precedence, LK(k), and SLR(k). Techniques of machine-independent code generation and improvement. Inherited and synthesized attributes. Syntax directed translation schema. Prerequisites: CSC 308 and CSC 215.

CSC 408 Switching Theory Lec. 3./Credit 3.
Axiomatic development of Boolean algebra and its application to switching circuits. Combinatorial circuits using logic connectives, different methods for the minimization of switching functions. Introduction to sequential machines, state diagrams, and flow tables. Prerequisites: CSC 301 and CSC 215.

CSC 410 Special Projects Pjt./Credit 3-6.
Introduction to research problems in special areas of computer science. Prerequisite: Advanced Standing and Permission of the Department Chair.

CSC 411 Research Problems Pjt./Credit 3-6.
Participation in research projects in collaboration with faculty supervisor, or original independent research problem. Prerequisite: Advanced Standing and Permission of the Department Chair.

CSC 421 Applications of Microcomputers
Lec. 3./Credit 3.
Introduction to using microcomputers and major software packages such as spreadsheet, word processing, database management, graphics. Students will learn at least two different micro-computer systems. Prerequisite: CSC 120 or Permission of Instructor.

CSC 425 Senior Seminar Lec. 2./Credit 2.
Topical discussion on current trends in computer science. Includes reports, guest lecturers, field trips, and technical writing skills. Prerequisite: Senior Standing within the major.

CSC 426 Automata, Computability, and Formal Languages
Lec. 3./Credit 3.
Finite state concepts. Sequential machines and finite state transducers. State minimization. Formal grammar including Chomsky hierarchy grammars. Pushdown acceptors and linear bounded automata. Closure properties and algorithms of grammars. Computability and Turing Machines. Computable and non-computable functions. Prerequisite: CSC 308.

CSC 430 Artificial Intelligence Lec. 3./Credit 3.
Survey of the field of artificial intelligence. Problem solving methods and searches through solution space. Predicate calculus for logic based systems. Expert systems. Knowledge representation. Machine learning. Computer vision.
Prerequisite: CSC 252.

CSC 483 Advanced Computer and Network Security
Lec. 3./Credit 3.
Introduction to security problems in computing and networking. Information Security Models. Encryption and decryption techniques. Cryptographic protocols and practices. Operations Security. Program Security. Security in networks and distributed systems. Database Security. Electronic commerce security. Legal and ethical issues in computer and network security. Prerequisite: CSC 382.

CSC 484 Systems Security Administration, Management, and Certification Lec. 3./Credit 3.
Outlines the principles of systems security administration, management, and certification. Provisioning, procurement and installation of network, hardware and software systems for mission critical enterprises. System configuration and maintenance. Incident handling and response. Facilities Management. Contingency Plans. Law, standards of contract. Operations Management. System certification, testing and validation. Prerequisite: CSC 382.

CSC 485 Risk Management Lec. 3./Credit 3.
Outlines the aspects of computer security and risk management. Accreditation, implementation, extension, and operation principles for secure information systems. Security policy and plan development. Contingency, continuity and disaster recovery planning. Incident handling and response. Prerequisite: CSC 382.

CSC 486 Systems Security for Senior Management
Lec. 3./Credit 3.
Develops the knowledge necessary for senior security management to analyze and judge the reported systems for validity and reliability to ensure such systems will operate at a proposed trust level. Topical review and discussion on current trends in cybersecurity standard. Includes grant final approval to operate, grant review accreditation, verify compliance, ensure establishment of security controls, ensure program managers define security in acquisitions, assign responsibilities, define criticality and sensitivity, allocate resources, multiple and joint accreditation, assess network security. Prerequisite: CSC 382.

CSC 491 Senior Research Topics in Computer Science Sem./Pjt./Credit 1-12.
Designed for senior level undergraduates. Emphasis will be placed upon participating in an independent research project or making a major contribution to departmental research with a designated research mentor. The student will produce a publication quality research report or thesis. Regular attendance at the computer science seminar series is also required. This course may be taken twice. Prerequisite: Permission of the Department Chair.

CSC - Computer Science Undergraduate/ Graduate

CSC 501 Programming Lec. 4./Credit 4.
Problem solving using a high-level language. Problem analysis, top-down design and stepwise refinement. Programming language concepts of input/output, data representation, data types, iteration, recursion, subroutines, and parameter passing. Aspects of syntax and semantics of a high level programming language.

CSC 502 Advanced Programming Lec. 3./Credit 3.
Data structuring mechanisms. Recursive functions and procedures. Abstract data types. Traversal algorithms. Principles of good programming style. Introduction to sorting, searching and algorithm analysis. Prerequisite: CSC 501 or Permission of the Department Chair.

CSC 504 Computer Systems Lec. 3./Credit 3.
Binary number representations. Computer structure. Addressing techniques. Storage allocation. Subroutine linkage. Relocatability and program segmentation. Systems programming at various levels. Macros.

CSC 506 Advanced Programming and Data Structures Lec. 4./Credit 4.
Review of structured programming. Definitions and implementation of data structures, such as stacks, queues, lists, trees, graphs, strings, and files. Data abstraction, algorithms, recursion, and iteration. Relations among data structures, algorithm structures, and analysis of algorithms. Prerequisite: CSC 502 or Permission of the Department Chair.

CSC 507 Architectures and Operating Systems Lec. 4./Credit 4.
Principles of computer design, processor and storage organization, I/O organization. Microcomputer, minicomputer, and mainframe architectures. Assembly languages and functions of operating systems, such as I/O functions, file management, resource allocation. Deadlocks and recovery techniques. Multiprogramming, multiprocessing, and distributed systems.

CSC 508 Programming Languages Lec. 4./Credit 4.
Chomsky hierarchy and programming languages. Language definitions. Data types and structures. Control structures and data flow. Syntax, semantics, design, and implementation of programming languages. Lexical analysis, parsing and code generation.

CSC 510 Mathematical Foundations Lec. 3./Credit 3.
Propositional and Predicate Calculus. Proof techniques. Queuing theory. Mathematical formulations of data structures. Basic models of computation expressions and grammars. Prerequisite: CSC 215 and CSC 252.

CSC 512 Theoretical Foundations Lec. 3./Credit 3.
Automata theory, models of computation, computability, introduction to complexity theory. Prerequisite: CSC 510.

CSC 513 Graphics Lec. 3./Credit 3.
Basic graphics programming and graphics packages. Graphics hardware. Transformations, 3D graphics, modeling, shading, intensity, hidden elements, color. Prerequisite: CSC 205, CSC 252 and MAT 152.

CSC 519 Topics in Mathematical Foundations Lec. 3./Credit 3.
A treatment of topics in mathematical foundations not routinely covered by other courses. Prerequisite: CSC 510 or Permission of the instructor.

CSC 529 Topics in Parallel Programming Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: Permission of the instructor.

CSC 539 Topics in Intelligent Systems Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: Permission of the instructor.

CSC 542 Object Oriented Programming Lec. 3./Credit 3.
An overview of object oriented programming foundations and styles: reusability and object oriented analysis, design, and coding. Detailed investigation of object oriented programming concepts such as objects, classes, inheritance, messages, encapsulation.

CSC 544 Software Tools Lec. 3./Credit 3.
Introduces various software and hardware systems useful for research in Computer Science. Particular emphasis is placed on tools found in the UNIX and DOS environment on platforms such as workstations, PC's and parallel machines.

CSC 549 Topics in Software Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: Permission of the instructor.

CSC 559 Topics in Theoretical Foundations Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: CSC 510 or Permission of the instructor.

CSC 561 Compilers and Interpreters Lec. 3./Credit 3.
Syntax and semantics of high level languages. Lexical analysis, parsing, code generation, and optimization.

CSC 569 Topics in Programming Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: Permission of the instructor.

CSC 570 Database Management Systems Lec. 3./Credit 3.
Introduction to database concepts. Hierarchical, network, and relational models. Data normalization. Data description languages. Query facilities. File organization. Index organization. File security. Data integrity and reliability.
Prerequisite: CSC 251.

CSC 571 Concepts of Communication Networks Lec. 3./Credits 3.
Data communication concepts involving signaling, modulation, transmission methods, interfaces, multiplexing, data integrity and security. Principles of communication architectures and networks. Standard communication architectures. Switching and routing concepts. Classification and fundamental operations of networks. Network design principles. Medium access protocols. Internetworking and advanced data transmission concepts. Prerequisite: CSC 205.

CSC 589 Topics on Computing Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: Permission of the instructor.
CSC (Computer Science – Graduate Only)

CSC 612 Numerical Computation Lec. 3./Credit 3.
Numerical and optimization methods useful for simulation, graphics, and image processing. Computation statistics and Monte Carlo methods. Signal analysis foundations. Prerequisite CSC 510 or Permission of the instructor.

CSC 620 Operating Systems Lec. 3./Credit 3.
Relation between architectures and operating systems. Multiprogramming, time-sharing, multiprocessing, distributed processing, and real time processing. Interprocess communication and synchronization. Resource allocation and related problems.

CSC 621 Network Systems and Design Lec. 3./Credit 3.
Data transport characteristics and topologies; the frame formats and protocols for messages; the physical, data link, network and transport layers; network performance evaluation. Prerequisite: CSC 620 or Permission of the instructor.

CSC 622 Parallel Processing Lec. 3./Credit 3.
Parallel processing models and architectures. Concurrent processes and controls. Parallel algorithms and their analysis. Prerequisite: CSC 620 or Permission of the instructor.

CSC 623 Architecture Lec. 3./Credit 3.
Principles of computer design. Architectures of sequential and parallel computers. Prerequisite: CSC 620 or Permission of the instructor.

CSC 629 Topics in Operating Systems Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: CSC 620 or permission of the instructor.

CSC 630 Artificial Intelligence Lec. 3./Credit 3.
Problem solving techniques and search. Knowledge representation schemes such as frames, rules, and predicate calculus. Machine learning. Application areas such as natural language processing, expert systems, and computer vision.

CSC 631 Expert Systems Lec. 3./Credit 3.
Architectures of knowledge-based systems. Reasoning, knowledge, and control. Languages and tools for decision support systems. Prerequisite: CSC 630 or Permission of the instructor.

CSC 632 Natural Language Processing Lec. 3./Credit 3.
Syntax, semantics and pragmatics of natural language. Parsers, and semantic interpreters. Prerequisite: CSC 630 or Permission of the instructor.

CSC 639 Topics in Artificial Intelligence Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: CSC 630 or Permission of the instructor.

CSC 640 Software Engineering Foundations Lec. 3./Credit 3.
Software engineering paradigms. Formal specification, design, verification and maintenance.

CSC 642 Software Analysis and Testing Lec. 3./Credit 3.
A survey a software analysis and testing techniques. Six program views (textual, syntactic, control flow, data flow, computation flow, and functional) and analysis techniques based on those view. A taxonomy of testing techniques including specification-oriented, implementation-oriented, and error-oriented, and hybrid methods. Evaluation of testing techniques and test cases. Prerequisite: CSC 640 or Permission of the instructor.

CSC 649 Topics in Software Engineering Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: CSC 640 or Permission of the instructor.

CSC 650 Theory of Computation Lec. 3./Credit 3.
Chomsky hierarchy. Turing machines, decidability and computational complexity.

CSC 651 Algorithms and Complexity Lec. 3./Credit 3.
Turing machines and equivalent computational models. Church's thesis. Complexity classes. Prerequisite: CSC 510, CSC 650 or Permission of the instructor.

CSC 659 Topics in Theory of ComputationLec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: CSC 640 or Permission of the instructor.

CSC 660 Programming Languages Lec. 3./Credit 3.
Chomsky Hierarchy and programming languages. Language definitions, data types, and structures. Control structures and data flow. Syntax, semantics, design and implementation of programming languages. Lexical analysis and parsing.

CSC 669 Topics in Programming Languages Lec. 3./Credit 3.
A treatment of topics not routinely covered by other courses. Prerequisite: CSC 660 or Permission of the instructor.

CSC 681 Research Seminar I Sem. 3./Credit 3.
Research on problems leading to a thesis.

CSC 682 Teaching Seminar I Sem. 3./Credit 3.
Students will engage in co-teaching a low-level computer science course.

CSC 683 Research Seminar II Sem. 3./Credit 3.
Research on problems leading to a thesis.

CSC 684 Thesis Research Credit 1-4.
This course documents preparation for the written Master's thesis.

CSC 689 Thesis Credit 4.
This course documents completion of the written Master's thesis and oral defense of that thesis.

CSC 700 Thesis Registration Credit 1.
Graded S/U only.

CSC 702 Master's Comprehensive Examination Credit 1.
This credit will not count towards the degree. Graded S/U only.

CYS (Cyber Security)

CYS 323 Ethics, Law and Policy in Cyberspace Lec. 3/Credit 3.
This course involves the study of ethical issues, legal resources and re-courses, and policy implications inherent in our evolving online society. It also provides an overview of the ethical challenges faced by individuals and organizations in the information age. It introduces the complex and dynamic state of the law as it applies to behavior in cyberspace.

CYS 382 Introduction to Cyber Security Lec. 3/Credit 3.
This course provides an introduction to Information Assurance and the various technical and administrative aspects of Information Security and Assurance. This course also provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. The purpose of this course is to provide the student with an overview of the field of Information Security and Assurance. Students will be exposed to the spectrum of Security activities, methods, methodologies, and procedures. Coverage will also include the inspection and protection of information assets, detection of and reaction to threats to information assets, and examination of pre- and post-incident procedures, technical and managerial responses and an overview of the Information Security Planning and Staffing functions.

CYS 410 Cryptography Lec. 3./Credit 3.
Cryptographic techniques to achieve confidentiality, integrity, authentication and nonrepudiation are examined. The underlying mathematical concepts are introduced. Topics to be covered include symmetric and public key encryption, hashing, digital signatures, cryptographic protocols and other recent developments in the field. Prerequisite: CSC 215.

CYS 470 Computer Forensics and Incident Handling Lec. 3/Credit 3.
This course will include: the identification, acquisition, preservation, and analysis of electronic evidence from single machines, networks, and the Internet. It will explore the technical and legal issues of computer forensics investigations. Topics will include: forensics law and regulation issues, incidence response, open and commercial tools, evidence recovery theory and practice of computer file systems, memory, registry, network logs and communications. Special focus will be given to windows systems and networks. Prerequisite: CYS 382.

CYS 475 Computer Viruses and Malicious Software Lec. 3/Credit 3.
This course involves the study of malicious software (malware) including computer viruses, worms, and Trojan horses. Topics include the various mechanisms used in the construction of malicious software; existing commercial anti-virus software; preventative and reactive means for dealing with malicious software on workstations, servers, and in networks; training and education of users; and reliable sources to monitor for alerts as well as the prevention of hoaxes. Prerequisite: CYS 382.

CYS 483 Advanced Computer and Network Security Lec. 3./Credit 3.
Introduction to security problems in computing and networking. Information Security Models. Encryption and decryption techniques. Cryptographic protocols and practices. Operations Security. Program Security. Security in networks and distributed systems. Database Security. Electronic commerce security. Legal and ethical issues in computer and network security.
Prerequisite: CYS 382, CSC 571.

CYS 484 Systems Security Administration, Management and Certification Lec. 3./Credit 3.
Outlines the principles of systems security administration, management, and certification. Provisioning, procurement and installation of network, hardware and software systems for mission critical enterprises. System configuration and maintenance. Incident handling and response. Facilities Management. Contingency Plans. Law, standards of contract. Operations Management. System certification, testing and validation. Prerequisite: CYS 382, CSC 252.

CYS 485 Risk Management Lec. 3/Credit 3.
This course outlines the aspects of computer security and risk management. It will include: the accreditation, implementation, extension, and operation principles for secure information systems; security policy and plan development; contingency, continuity and disaster recovery planning: and incident handling and response. Prerequisite: CYS 382.

CYS 486 Systems Security for Senior Management
Lec. 3./Credit 3.

Develops the knowledge necessary for senior security management to analyze and judge the reported systems for validity and reliability to ensure such systems will operate at a proposed trust level. Topical review and discussion on current trends in certification standard. Includes grant final approval to operate, grant review accreditation, verify compliance, ensure establishment of security controls, ensure program managers define security in acquisitions, assign responsibilities, define criticality and sensitivity, allocate resources, multiple and joint accreditation, assess network security. Prerequisite: CYS 382, CSC 252.

CYS 590 Network Security and Intrusion Detection
Lec. 3./Credit 3.

Provides a comprehensive overview of network security and intrusion detection. Topics include security overview, authentication, attacks and malicious code, communication security, Web security, network security topologies, intrusion detection, firewalls and VPNs, security baselines, security algorithms, physical security, disaster recovery, forensics overview, and other state-of-the-art developments. Prerequisite: CYS 382, CSC 571.

CYS 591 Wireless Networks Lec. 3./Credit 3.

Examines security of wireless networks which have become ubiquitous such as cellular networks, wireless LANs, mobile ad hoc networks, wireless mesh networks, and sensor networks. Unprotected wireless networks are vulnerable to several security attacks including eavesdropping and jamming that have no counterpart in wired networks. Topics will include: authentication, secure handoffs, key management in wireless networks, attacks on MAC protocols, selfish and malicious behavior in wireless routing protocols, secure multicast. Prerequisite: CYS 382, CSC 571.

CYS 592 Secure Distributed Computing Lec. 3./Credit 3.

Covers theoretical and applied aspects of security and privacy needed for the middleware and service-ware architectures to offer reasonable assurance for modern distributed systems. Topics include cloud computing, distributed storage systems, virtualization, distributed systems architectures, technologies and management; distributed system design, security and privacy issues; and applications such as Web services and mobile commerce. Prerequisite: CYS 382, CSC 252.

CYS 595 Special Topics Lec. 3./Credit 3.

A treatment of advanced topics of interest in Information Assurance and Cyber Security not routinely covered by existing courses. May be repeated when topics vary. Prerequisite: Permission of the Department Chair.

CYS - Cyber Security Graduate Only

CYS 523 Ethics, Law and Policy in Cyberspace
Lec. 3./Credit 3.

Study of ethical issues, legal resources and resources, and policy implications inherent in our evolving online society. Provides an overview of the ethical challenges faced by individuals and organizations in the information age. Introduces the complex and dynamic state of the law as it applies to behavior in cyberspace. Prerequisite: Graduate standing.

CYS 582 Introduction to Cyber Security Lec. 3./Credit 3.

An introduction to the various technical and administrative aspects of Information Security and Assurance. This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. The purpose of the course is to provide the student with an overview of the field of Information Security and Assurance. Students will be exposed to the spectrum of Security activities, methods, methodologies, and procedures. Coverage will include inspection and protection of information assets, detection of and reaction to threats to information assets, and examination of pre and post-incident procedures, technical and managerial responses and an overview of the Information Security Planning and Staffing functions. Prerequisite: Graduate standing.

CYS 583 Secure Software Engineering Lec. 3./Credit 3.

An overview of methodologies, tools and techniques for producing secure software systems. Students will cooperatively develop a secure software product. The course will also provide an introduction to professional resources and ethical issues for software developers. Prerequisite: CYS 582.

CYS 610 Cryptography Lec. 3./Credit 3.

Cryptographic techniques to achieve confidentiality, integrity, authentication and non-repudiation are examined. The underlying mathematical concepts are introduced. Topics to be covered include symmetric and public key encryption, hashing, digital signatures, cryptographic protocols and other recent developments in the field. Prerequisite: CSC 510.

CYS 670 Computer Forensics and Incident Handling
Lec. 3./Credit 3.

Identifying, acquiring, preserving, and analyzing electronic evidence from single machines, networks, and the Internet. It will explore both technical and legal issues of computer forensics investigations. Topics include forensics law and regulation issues, incidence response, open and commercial tools, evidence recovery theory and practice of computer file systems, memory, registry, network logs and communications. Special focus will be given to windows systems and networks. Prerequisite: CYS 582.

CYS 675 Computer Viruses and Malicious Software Lec. 3./Credit 3.
This course involves the study of malicious software (malware) including computer viruses, worms, and Trojan horses. Topics include the various mechanisms used in the construction of malicious software; existing commercial anti-virus software; preventative and reactive means for dealing with malicious software on workstations, servers, and in networks; training and education of users; and reliable sources to monitor for alerts as well as the prevention of hoaxes. Prerequisite: CYS 582.

CYS 683 Advanced Computer and Network Security Lec. 3./Credit 3.
Introduction to security problems in computing and networking. Information Security Models. Encryption and decryption techniques. Cryptographic protocols and practices. Operations Security. Program Security. Security in networks and distributed systems. Database Security. Electronic commerce security. Legal and ethical issues in computer and network security. Prerequisite: CYS 582.

CYS 684 Systems Security Administration, Management and Certification Lec. 3./Credit 3.
Outlines the principles of systems security administration, management, and certification. Provisioning, procurement and installation of network, hardware and software systems for mission critical enterprises. System configuration and maintenance. Incident handling and response. Facilities Management. Contingency Plans. Law, standards of contract. Operations Management. System certification, testing and validation. Prerequisite: CYS 582.

CYS 685 Risk Management Lec. 3./Credit 3.
Outlines the aspects of computer security and risk management. Accreditation, implementation, extension, and operation principles for secure information systems. Security policy and plan development. Contingency, continuity and disaster recovery planning. Incident handling and response. Prerequisite: CYS 582.

CYS 686 Systems Security for Senior Management Lec. 3./Credit 3.
Develops the knowledge necessary for senior security management to analyze and judge the reported systems for validity and reliability to ensure such systems will operate at a proposed trust level. Topical review and discussion on current trends in cybersecurity standard and CISSP certification. Includes grant final approval to operate, grant review accreditation, verify compliance, ensure establishment of security controls, ensure program managers define security in acquisitions, assign responsibilities, define criticality and sensitivity, allocate resources, multiple and joint accreditation, assess network security. Prerequisite: CYS 582.

CYS 690 Network Security and Intrusion Detection Lec. 3./Credit 3.
Provides a comprehensive overview of network security and intrusion detection. Topics include security overview, authentication, attacks and malicious code, communication security, Web security, network security topologies, intrusion detection, firewalls and VPNs, security baselines, security algorithms, physical security, disaster recovery, forensics overview, and other state-of-the-art developments. Prerequisite: CYS 582.

CYS 691 Wireless Networks Lec. 3./Credit 3.
Examines security of wireless networks which have become ubiquitous such as cellular networks, wireless LANs, mobile ad hoc networks, wireless mesh networks, and sensor networks. Unprotected wireless networks are vulnerable to several security attacks including eavesdropping and jamming that have no counterpart in wired networks. Topics will include: authentication, secure handoffs, key management in wireless networks, attacks on MAC protocols, selfish and malicious behavior in wireless routing protocols, secure multicast. Prerequisite: CYS 582.

CYS 692 Secure Distributed Computing Lec. 3./Credit 3.
Covers theoretical and applied aspects of security and privacy needed for the middleware and service-ware architectures to offer reasonable assurance for modern distributed systems. Topics include cloud computing, distributed storage systems, virtualization, distributed systems architectures, technologies and management; distributed system design, security and privacy issues; and applications such as Web services and mobile commerce. Prerequisite: CYS 582.

CYS 695 Special Topics in Cyber Security Lec. 3./Credit 3.
A treatment of advanced topics of interest in Cyber Security not routinely covered by existing courses. May be repeated when topics vary.

CYS 702 Master's Comprehensive Examination Credit 1.
This credit will not count towards the degree. Graded S/U only.

ECO (Economics)

ECO 200 Introduction to Economics Lec. 3./Credit 3.
Basic non-technical course dealing with the fundamental concepts and principles of modern economics.

ECO 201 Principles of Macroeconomics Lec. 3./Online/Credit 3.
A first course on modern market economies. Emphasizes the determination of national income, fluctuations, and growth; the monetary system; the problems of inflation and unemployment; and international trade.

ECO 202 Principles of Microeconomics Lec. 3./Credit 3.
Second principles course on basic tools of market and price theory and their applications to the operations of firms, the consumption and work choices of individuals, and the effects of government taxes and policies.

ECO 301 Intermediate Theory I Lec. 3./Credit 3.
An intensive treatment and quantitative analysis of the theories of consumer behavior, demand, production, costs, the firm, market organization, and resource use in a modern market economy. Prerequisites: ECO 201, 202.

ECO 302 Intermediate Macro Theory Lec. 3./Credit 3.
The meaning, components, and distribution of national income. Special attention is given to the analysis of determinants of level of output, income, and employment; problems of income estimation and measurement and exchange rate. Prerequisites: ECO 201, 202.

ECO 315 Money, Banking, and National Income
Lec. 3./Credit 3.
Examines the role of money and credit in general economic activity; nature and functions of money; structure and organization of monetary and credit systems. Study of Federal Reserve System and United States Treasury in influencing expansion and contraction of credit. Theories of interest, money; national income and its determinants. Prerequisites: ECO 201, 202.

ECO 316 Labor Economics **Lec. 3./Credit 3.**
Economics of the labor market, wage determination, occupational choice, household production, human capital formation, discrimination in the work place, public policy toward the work place, and the role of trade unions in American society. Prerequisites: ECO 201, 202.

ECO 317 Economic History of the United State
Lec. 3./Credit 3.
Economic and historical analysis of the American economy from Colonial times to the present. Emphasizes the roles of economic ideas, technology, population changes, institutions, and social adjustments and government in the development process. Prerequisites: ECO 201, 202.

ECO 318 Economics of Growth and Development
Lec. 3./Credit 3.
Survey of patterns, issues, and problems of progress and industrialization in both developed and advanced countries. The course will further explore the changing structure and dynamics of social organization in the context of modernization and urbanization. Major emphasis on problems relating to capital formation, technical assistance, economic aid, and social organization. (no prerequisites).

ECO 319 Industrial Organization **Lec. 3./Credit 3.**
An analysis of the relationship between industrial market structures and their impact on the behavior and performance of firms; survey and evaluation of government policies (anti-trust and regulation) toward improving the performance (allocation of scarce resources) in the U.S. economy. Prerequisites: ECO 201 and 202.

ECO 352 Urban Economics **Lec. 3./Credit 3.**
The structure and function of cities as economic entities. Land use, rent gradients, transportation, housing, education, crime, provision of local government services, the Tiebout hypothesis, and urban redevelopment. Prerequisites: ECO 201, 202.

ECO 360 Economics Cooperative Education/Internship
Credits 1-9.
Co-ops and internships are on-the-job experiences in the area of economics in business or government to serve as a laboratory for integrating the theoretical with practical experiences. Co-ops can have up to six months duration and be worth up to 9 credits. Internships are generally for summer employment and worth up to 3 credits. Students may arrange for co-ops or internships in their junior and senior years. Prerequisite: Permission of the Program Director.

ECO 400 Independent Study **Credits 2-4.**
Individual and original primary research in economics under the guidance of department faculty. Prerequisites: Senior status and approval of the Program Director.

ECO 404 Senior Seminar **Lec. 3./Credit 3.**
Study of issues and problems of economics; research and report writing; integration of knowledge and skills with application to special problems. Prerequisites: ECO 301-302 or permission of Program Director.

ECO 416 History of Modern Economic Thought
Lec. 3./Credit 3.
The development of the various schools of economic thought (the mercantilist, phyiocratic, English classical, German historical, marginal and equilibrium) studied against their respective economic, political, and social backgrounds. Some attention will be given to Keynesian and post-Keynesian economics. Prerequisite: ECO 301, 302.

ECO 435 International Economics **Lec. 3./Credit 3.**
Study of principles and problems of international trade and finance; plans for promotion of trade; balance of international payments. Major emphasis on international payments and the effects of international crises on domestic microeconomics. Major emphasis on international institutions such as international Monetary Fund, International Bank for Reconstruction and Development, and Common Market developments. Prerequisites: ECO 301, 302.

ECO 436 Economics of the Public Sector **Lec. 3./Credit 3.**
The microeconomic rationale for government activity in a market economy and the economic effects of such activity. Market failure and the tools of normative analysis; income redistribution, design of expenditure programs; the design, incidence, and behavioral consequences of tax policy; collective decision making and the theory of public choice. Prerequisites: ECO 301, 302.

ECO 438 Mathematical Economics **Lec. 3./Credit 3.**
Introduction to a variety of mathematical concepts and techniques used in economic theory. The course further explores the role, use and application of mathematical models to various areas to predict economic effects on business activities and areas for value creation and resources allocation. Prerequisite: ECO 301, 302.

ECO 439 Economic Statistics **Lec. 3./Credit 3.**
Introduction to the statistical tools used by economists. Topics include probability theory, statistical estimation, hypothesis testing and regression analysis. Prerequisite: MAT 117.

ECO 440 Econometrics **Lec. 3./Credit 3.**
Introduction to the theory and practice of econometrics. Application of statistical inference, probability theory, and matrix algebra to multiple regression analysis. Prerequisites: ECO 301, 302.

EDU (Education)

EDU 200 Foundations of Education Lec. 3./Credit 3.
Students develop an understanding of the historical, philosophical, and sociological foundations underlying the role, development and organization of public education in the United States. Attention is given to the legal status of teachers and students, including federal and state laws and regulations, school as an organization/culture, and contemporary issues in education. Students also explore the foundations of instructional design based on assessment data. This course also discusses the origin of special education from a historical perspective including major contributors that laid the foundation for the growth and improvement of knowledge and practice in the field. Additionally, applicable laws, rules and regulations, procedural safeguards, program standards and ethical considerations regarding the education of students with disabilities including screening, referral and placement procedures and non-biased evaluation and diagnosis techniques will be explored. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 295 Learning to Learn Lec. 3./Credit 3.
Designed to enhance students skills in generating questions, reading for comprehension, scheduling course work, developing strategies for studying for examinations, writing to answer questions, and writing term papers. Skills taught in the course are expected to be applied to other academic courses. This course is not a free elective.

EDU 300 Curriculum in the Secondary School
Lec. 3./Cln. 1./Credit 3.
Students develop an understanding of the principles of learning; teaching methods tailored to promote student academic progress; the relationships among assessment, instruction, and monitoring student progress; and methods of improving communication between schools and families. Students shall also complete study in child abuse recognition and intervention. Clinical activities will be arranged. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 301 Curriculum in the Elementary School
Lec. 3./Cln. 1./Credit 3.
Students develop an understanding of the principles of learning; teaching methods tailored to promote student academic progress; the relationships among assessment, instruction, and monitoring student progress; and methods of improving communication between schools and families. Students shall also complete study in child abuse recognition and intervention. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 302 Human Growth and Development
Lec. 3/Cln. 1./Credit 3.
Students gain an understanding of the physical, social, emotional, speech and language, and intellectual development of children and the ability to use this understanding in guiding learning experiences. The interaction of children with individual differences – economic, social, racial, ethnic, religious, physical, and mental – is incorporated to include skills contributing to an understanding of developmental disabilities and developmental issues related to but not limited to attention deficit disorders, gifted education including the use of multiple criteria to identify gifted students, substance abuse, child abuse, and family disruptions. Educational strategies including instructional and curricular modifications and collaborative options appropriate for students with exceptionalities identified in the Individuals with Disabilities Education Act (IDEA) will be explored. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 312 Social Studies in Childhood Education
Lec. 3./Credit 3.

This course is designed to provide students with an understanding of the foundation for teaching social sciences and history as defined in the Virginia's Foundational Blocks for Early Learning: Comprehensive Standards for Four-Year-Old's and the Virginia Standards of Learning. This course will focus on the critical examination of current practice, content, and materials in elementary school social studies and specific strategies, methodologies, and design approaches to teaching Social Studies in diverse elementary classrooms. The course will examine curriculum as it relates to different learning styles, critical thinking, problem solving, active learning, inquiry, collaboration, instructional planning and assessment. The course design will also focus on the delivery of standards-based integrated curriculum centered on developing historical thinking; geographical analysis; economic decision-making; responsible citizenship; key elements of the national social studies and arts standards and the Virginia Standards of Learning in social studies; and examine issues related to multiculturalism and differentiation for culture, ethnicity, and race. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 314 Reading in Content Areas **Lec. 2./Credit 2.**

Study of approaches to teaching reading in the intermediate and secondary schools; emphasis placed on specific content areas. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 315 Teaching Developmental Reading
Lec. 3./Credit 3.

This course is designed to expose students to foundational aspects of reading instruction and the understanding of the complex nature of language acquisition and reading. This course will focus on understanding of sound/symbol relationships, explicit phonics instruction, syllables, phonemes, morphemes, decoding skills, word attack skills, and a knowledge of phonics, syntax, and semantics interact. Additional skills will include proficiency in a variety of comprehension strategies, as well as the ability to foster appreciation of a variety of literature and independent reading. Course emphasis includes reading theories, related research, balanced reading approaches, systematic explicit phonics instruction, techniques and materials for planning, designing, and conducting reading instruction in grades K-8. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 323 Methods and Materials for Teaching Health Education (1) **Lec. 3./Credit 3.**

This course provides coverage of selection, and evaluation of content, methods and materials for effective health instruction. Curriculum is included with an emphasis on lesson and unit planning. The student will have individual teaching experiences, including videotaping and experiences in test construction.

EDU 324 Tests and Measurements in Health and Physical Education (2) **Lec. 2./Credit 2.**

History, development, analysis, evaluation, and application of tests in health and physical education. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 371 Physical Education Curriculum and Instruction Lec. 2./Lab 1.Credit 3.

This course is designed to provide an understanding of the knowledge, skills, and processes of various instructional methods associated with cognitive, psychomotor, and affective domains for teaching physical education, including sequential preK-12 instruction in a variety of movement forms (cooperative activities, outdoor and adventure activities, rhythms and dance, and team and individual activities); activities for diverse learners; and activities to help students understand, develop, and value personal fitness. Topics will include physical education standards of learning, lesson and unit planning, instructional procedures, management and motivation, student assessment, and new and emerging instructional technology. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 372 Methods and Materials in Physical Education in Secondary Schools (2) Lec. 2./Credit 2.

Organization and planning for instruction in the regular physical education program, athletic and intramural sports, observation in secondary schools and microteaching.

EDU 402 Diagnostic Teaching of Reading Lec. 2./Lab 2./Credit 3.

Selection, administration, and evaluation of assessment instruments and instructional techniques appropriate for diagnosing and correcting classroom reading difficulties. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools. Prerequisite: EDU 315.

EDU 406/506 Diversity in Education Lec. 3/ Credit 3.

Students explore the various issues of linguistic, social, and cultural diversity in education. The course includes a basic overview of the role of language in the educational process, and the educational implications of language diversity, as one component of the classroom. Social and community issues-including the effect of alcohol, drugs and tobacco--confronting teachers in contemporary society are addressed, as well as issues of culture. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 431 Assessment, Evaluation & Instructional Technologies for Diverse Learner Lec.3./Credit 3.

The ultimate goal of this course is to contribute to the ability of teacher candidates to use various approaches to design, evaluate instructional materials, and technologies to evaluate students and use data to inform teaching practices. Emphasis is on the significance of creating, selecting, and implementing valid and reliable classroom-based assessments of student learning to meet the needs of diverse learners; formative and summative assessments; establishing measurable objectives to inform ongoing planning and instruction; validity and reliability of different types of tests; the relationships among assessments to measure and improve instruction on student attainment of essential skills; incorporate instructional technology principles of online learning and instructional strategies to deliver instruction to enhance student performance; and knowledge of legal and ethical aspects for developing assessments used in Pre-K-12 education (diagnostic, college admission exam, industry certifications, placement exams). The content of the course will include understanding of the Virginia's assessment program and accountability system. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 438 Directed Practicum in Elementary or PK-12 Credit 3.

Directed practicum in planning, implementing and conducting classroom activities at elementary and PJ-12 levels. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 440 Supervised Teaching: Secondary School (9-12)
Credit 6 or 12.

Directed observation and student teaching in a secondary school classroom within a public school district. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s). The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 441 Student Teaching Internship Elementary Schools
Credit 12.

A culminating experience that involves students assuming full responsibility for the management and instruction of classes in an elementary school under close clinical and University supervision. Students will be assessed using the format and criteria designed by the department. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU - Education Undergraduate/Graduate

EDU 500 Independent Study in Education Ind./Credit 3.

Open to selected students who desire to research and study a problem in-depth; related to general preparation as teachers or areas of specialization. Action research is encouraged. Prerequisite: Approval by department chairman upon recommendation of academic advisor. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required tests.

EDU 502/602 Diagnostic Teaching of Reading
Lec. 2./Credit 3.

Selection, administration, and evaluation of assessment instruments and instructional techniques appropriate for diagnosing and correcting classroom reading difficulties. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools. Prerequisite: EDU 315.

EDU 406/506 Diversity in Education Lec. 3/ Credit 3.

Students explore the various issues of linguistic, social, and cultural diversity in education. The course includes a basic overview of the role of language in the educational process, and the educational implications of language diversity, as one component of the classroom. Social and community issues–including the effect of alcohol, drugs and tobacco--confronting teachers in contemporary society are addressed, as well as issues of culture. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 508 Teaching Mathematics in Secondary Schools
Lec. 3./Cln. 1./Credit 4.

Students survey theories and practices, objectives, content, and methods of presentation and evaluation of mathematics in the secondary school curriculum. Analysis of major curricular programs and materials utilized by school districts to meet pupil needs (6-12). Instruction supplemented by observation and participation in public and private science settings. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools. A clinical experience of one hour will be arranged.

EDU 517 Classroom and Behavior Management
Lec. 3./Credit 3.

Students develop skills that contribute to an understanding and application of classroom and behavior management techniques and individual interventions, including techniques that promote emotional well-being and teach and maintain behavioral conduct and skills consistent with norms, standards, and rules of the educational environment. The class addresses diverse approaches based upon behavioral, cognitive, affective, social and ecological theory and practice. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 552 Teaching Science in Secondary Schools
Lec. 3./Cln. 1./Credit 4.

Students survey theories and practices, objectives, content, and methods of presentation and evaluation of science in the secondary school curriculum. Analysis of major curricular programs utilized in the local school districts to meet pupil needs (6-12). Instruction supplemented by observation and participation in public and private science settings. A clinical experience of one hour will be arranged. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 556 Teaching English in Secondary Schools
Lec. 3./Cln. 1./Credit 4.

Students survey theories and practices, objectives, content, and methods of presentation and evaluation of teaching writing, speech, and literature in secondary schools. Analysis of major curricular programs and materials utilized by school districts to meet pupil needs (6-12). Instruction supplemented by observation and participation in public and private school settings. A clinical experience of one hour will be arranged. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 602 Human Development in Childhood through Adolescence Lec. 3./Credit 3.

Emphasis upon physical, social, and mental changes. Utilization of insights from sociology, anthropology, and natural sciences; pertinent research findings in developing background for understanding children and adolescents. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 608 Directed Practicum in Secondary Education
Sem. 3./Cln. 6./ Credit 3.

Directed practicum in planning, implementing and conducting classroom activities at 6-12 secondary school levels. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 610 Current Issues in Education Sem. 3./Credit 3.

Students analyze educational reform movements, the school environment, and instructional research findings as related to classroom strategies and the development of a professional identity. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 611 Techniques and Problem is Education Research
Sem. 3/ Credit 3.

Develop skills necessary to read, analyze, interpret and criticize the range of educational research designs including experimental, correlational, survey, descriptive, case study, ethnography, narrative, policy and longitudinal research

EDU 623 Teaching Reading in Content Areas
Sem. 3./Credit 3.

Students develop an understanding of comprehension skills in all content areas, including a repertoire of questioning strategies, summarizing and retelling skills, and strategies in literal, interpretive, critical, and evaluative comprehension, as well as the ability to foster appreciation of a variety of literature and independent reading. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 647 Student Teaching Internship – Secondary School
Credit 9.

A culminating experience that involves students assuming full responsibility for the management and instruction of classes in a secondary school under close clinical and University supervision. Students will be assessed using the format and criteria designed by the department. Prerequisite: Successful admission of the Teacher Preparation Program and satisfactory performance on required tests. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 648 Student Teaching Internship – Music PK-12
Credit 9.

This course is a culminating experience in which students assume full responsibility for the management and instruction of classes in elementary and secondary schools under close clinical and University supervision. Students will be assessed using the format and criteria designed by the department. Prerequisite: Successful admission of the Teacher Preparation Program and satisfactory performance on required tests. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

EDU 683 School Organizational Systems and Theory
Lec. 3./Credit 3.

Process of strategic planning to include development of goals and objectives with measurable outcomes. Using behavioral science, emphasis will be placed on understanding systems theory, organizational development, and the change process of systems, organizations, and individuals. Development of effective communication skills to implement consensus building and negotiations will be discussed. The development of the current school system and education will be discussed. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDU 684 Secondary School Leadership(Grades 7-12)
Lec. 3./Credit 3.

Major problems and issues in organization, administration, and supervision of secondary schools with specific emphasis on developmental stage of students. Nature and function of administration. Examination of recent trends in school administration and supervision at the secondary school level. Adolescent development issues and the role of leadership with professional ethics will be discussed. Principles of school security and safety will be discussed.

EDU 685 Legal Aspects of School Administration
Lec. 3./Credit 3.

Legal characteristics of schools and the history of the legal process in public and private education in the United States and Virginia. Authority, powers, and responsibilities of teachers and administrators. Aspects of school finances, curriculum, property. Emphasis upon statutes and judicial decisions relating to education to include current issues. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDU 686 Elementary School Leadership (Grades PK-6)
Lec. 3./Credit 3.

Major problems and issues in organization, administration, and supervision of elementary schools with specific emphasis on developmental stage of students. Nature and function of administration. Examination of recent trends in school administration and supervision at the elementary school level. Child development issues and the role of leadership with professional ethics will be discussed. Principles of school security and safety will be discussed.

EDU 687 Human Resource Leadership in Schools and Districts Lec. 3./Credit 3.

An in-depth study of the goals of the school personnel department to attract, develop, retain and motivate personnel to accomplish the school's goals and objectives; assist members to achieve life-time professional development and growth to include adult learning. Topics of personnel issues, pay, fringe benefits, records, professional negotiations, insurance, fringe benefits, and school counseling programs from a leadership perspective will be discussed. This course will include a 10 hour practicum experience.

EDU 688 Curriculum Planning and Design
Lec. 3./Credit 3.

Basic concepts of curriculum development and modern trends in developing educational programs for children. Critical study of reorganization, construction, and administration of elementary and secondary curriculum for teaching and student learning in light of relevant educational principles, objectives, and global issues. Human growth and development will be investigated to include motivational and learning theories applied to effective curriculum planning and design. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDU 689 School and Community Relations and Diversity
Lec. 3./Credit 3.

Examination of public relations in school administration in a multicultural community. Critical study of practices, emerging issues and trends that impact the school community. Understanding community resources and partnerships of school, family, business, government and higher education institutions. The importance of community relations, the diverse school community, and marketing strategies will be discussed. The importance of education and equity in a democratic society with economic impact will be discussed. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDU 690 Supervision of Instruction Lec. 3./Credit 3.
Purpose and principles of instructional supervision at both elementary and secondary levels characteristics of effective supervision; planning, directing, and evaluating instructional programs; and treatment of organization, personnel, and materials. Applied learning, motivational theories, diversity, emerging theories and trends that impact the school community, and community resources and partnerships will be discussed. Principles of school security and safety will be discussed. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDU 691 Internship in Administration Trn./Credit 9.
Designed for prospective school administrators. Opportunities to observe and participate in operating policy. Student will complete a minimum of 400 clock hours of a structured and supervised internship to include multiple sites with diverse populations.

EDU 702 Master's Comprehensive Examination Lec. 0./Credit 0-1.
This credit will not count towards the degree. Pass/Fail grading only.

EDU 703 Thesis I Credit 3.
Designed for students in the initial stages of preparing a master's thesis.

EDU 704 Thesis II Credit 3.
Designed for students in the final stages of preparing a master's thesis. Prerequisite: EDU 703.

EDU 710 Leadership Theory & Practice in Educational Organizations Lec. 3./Credit 3.
The course is the foundation course for the doctoral program in Educational Leadership. Leadership will be defined, demystified, and distinguished from management and administration. The roles and expectations of leaders will be explored, and the competencies required for leadership will be identified. Issues of power, authority, and ethics are studied. Candidates will develop a theoretical position regarding their personal administrative style.

EDU 712 Higher Education Finance Lec. 3./Credit 3.
The purpose of this course is to provide the student with an overview of the financial and budget elements that are essential to a higher education institution's existence. This course draws upon basic and applied literature in the economics and finance of higher education, including work on processes of individual choice (e.g., students' sensitivity to tuition and aid levels), on federal, state, and institutional approaches to financing higher education and students, and on financial management, including budgeting and cost-effectiveness analysis. Studies in fundraising, alumni relations, and foundation management are also included.

EDU 713 School District Finance and Budgeting Lec. 3./Credit 3.
This course offers a study of the processes by which financial decisions are made by local school districts, with special emphasis on the roles of district administrators in the budgeting process. Included are the techniques of constructing and managing the budget, while addressing issues of need and equity in the school community. Also covered are the sources of school revenues and an introduction to the process and principles of facility planning.

EDU 714 Literature Review Lec. 3./Credit 3.
This course is designed to help students write a systematic literature review that is appropriate for a dissertation. The course will emphasize skills for writing the Problem Statement and conducting and writing the Review of Literature. Substantial time will be devoted to researching peer-reviewed articles on the topic the PHD student has chosen and critiquing previously written Literature Reviews as a way of helping the student understand the differences between a well-written and a poorly-written literature review. Substantial reading of journal articles will be required.

EDU 716 History of Higher Education Lec. 3./Credit 3.
This course explores the administrative development of American higher education from 1636 to the present, including internal trends and external forces. It adopts the widely acknowledged view that knowledge of the history of higher education is important for successfully providing leadership and performing other professional responsibilities. History provides important perspectives for routinely resolving critical leadership issues and problems. This is the case because institutions and institutional systems over time develop customs, values and traditions that continually affect students, faculty, administrators and other stakeholders. History identifies institutional customs, values and traditions, and analyzes their origins and consequences.

EDU 717 History of PK-12 Educational Reform Lec. 3./Credit 3.
This course surveys the history of American education from the Colonial Era to the present. It treats the changing character of education in the context of broader social and cultural developments. The course attempts to provide both knowledge of the history of American education and an appreciation of historical perspectives as ways of understanding contemporary education. Students will consider the creation, purposes, effects, and evolution of public schools in the United States, especially at the elementary and secondary level, as well as look at conflict over school structure, goals, and governance. By putting these debates in the context of American economic, social, and cultural history, students will also ask about the effects of public schooling on particular groups that have experienced discrimination and will see what changes arose from such conflicts.

EDU 718 Policy, Ethics, and Politics in Education
Lec. 3./Credit 3.

This course surveys local, state, and federal legal, political, economic, and social factors that contribute to the processes of educational policy development, implementation, and evaluation. It explores current policy and governance issues. Students will examine a variety of recent reform efforts at both the federal and state levels, with particular attention to No Child Left Behind and the debates around its reauthorization, and to the emergence of a select group of high performing charter schools and the views of their critics. Finally, students will consider questions of politics, with an eye towards how to move ideas into action. Includes a fieldwork requirement.

EDU 719 Diversity and Equity in Education
Lec. 3./Credit 3.

The course addresses changing demographics in our society that have created the need for educational and business leaders who are culturally competent change agents and policy makers, especially as they consider the impact that cultural variables such as race, ethnicity, gender, and age have on the overall performance of people within an organization. Course content deals with diversity both among the student body and the workforce. It addresses the ways that people are alike and explores issues of difference. It focuses on the power that valuing difference can have in establishing quality interpersonal relations, in taking advantage of the cultural richness that can result from diversity, and in creating mutual respect among groups. It examines how the educational leaders might overcome resistance to change in this regard. Students will demonstrate the acquisition of specific multicultural awareness, knowledge and skills competencies that are necessary to become culturally competent policy makers within educational organizations. Emphasis will be placed on the student's ability to create environments within their institutions that foster the highest level of performance by those individuals who learn and work within the institution.

EDU 720 Assessment, Evaluation and Accountability
Lec. 3./Credit 3.

This course is designed for the study of educational problem solving and accountability and their relationship to needs assessment techniques, evaluation methodologies, and data driven decision-making processes. It will explore strategies and tools to collect, analyze, organize, and present comprehensible and useful data. Data driven decision-making exercises will address problems and issues in a variety of educationally related scenarios.

EDU 722 College Student Development Lec. 3./Credit 3.

This course will review research and literature on college students from freshman through graduate school. It will include a discussion of student subcultural patterns and a survey of the major areas of higher education law regarding the college student. The course will conclude with a study of the organization and administrative functioning components, concepts, and models of student personnel administration systems using a historical and topical approach.

EDU 723 Legal Issues in Higher Education
Lec. 3./Credit 3.

This course serves as an overview of the legal issues that confront college and university personnel. Pertinent federal and state statutes as well as case law will be used to instruct about legal rights and responsibilities of university and college administrators. The legal relationships between the institution and the faculty, the student, the state government, and the federal government will be explored. In addition, the course focuses on the nature of framing issues, analyzing situations and cases, and providing sensible (sometimes innovative) recommendations/solutions.

EDU 724 Organization and Governance in Higher Education Lec. 3./Credit 3.

Focus on the administration of institutions of higher learning. Emphasis will be placed on higher education structure and characteristics, intra-institutional and extra-institutional forces affecting the governance of higher education, power delineations and struggles, and principles of problem solving.

EDU 725 Supervision and Professional Development
Lec. 3./Credit 3.

This course offers an overview of personnel functions in educational environments with a focus on recruitment, selection, orientation, evaluation, and development; interpersonal skills; motivational theories; and the utilization of technology in the personnel process. Students examine educators' professional learning in organizations and its contributions to organizational change, learning , and renewal.

EDU 726 Legal Issues in PK-12 Education Lec.3/Credit 3.

This course surveys the legal aspects of public K-12 education, including: legal structure; employee rights; employee discipline; curriculum; students' rights; student discipline, special education; torts; contracts, and religion. The impact of federal and state constitutions, statutes, and court decisions on education are also reviewed.

EDU 727 Instructional Improvement Lec. 3./Credit 3.

This course promotes visionary PK-12 instructional leadership with capacity to improve academic achievement. It surveys research-based models for educational improvement, particularly in high needs areas: literacy, second language learning, mathematics, science, and technology. Includes a fieldwork requirement.

EDU 731 Qualitative Research Methods Lec. 3./Credit 3.

The ability to carry out, interpret, understand and digest research in diverse contexts and with diverse populations is critical for successful educational leaders. The course provides learning experiences to continue to understand qualitative research methodologies, data collection techniques, analysis and communicating results. Some topics include: structured class inquiry, data collection and data analysis; design of original qualitative studies; and writing of research results. Emphasis on the relationship between research and practice.

EDU 732 Quantitative Research Methods Lec. 3./Credit 3.
This course focuses on the design of descriptive and correlational education-related research. Emphasis is placed on the collection and statistical analysis of quantitative data and use of statistical software.

EDU 733 Quantitative Research Methods II
Lec. 3./Credit 3.
This course focuses on the design of experimental educationrelated research. Emphasis is placed on the collection and statistical analysis of quantitative data and the use of statistical software. Prerequisite: EDU 732.

EDU 734 Action Research in Education
Lec. 3./Credit 3.
Action research is a qualitative approach to research that involves reactionary reflections and self-study with the support of a researcher, who may be a more knowledgeable peer or expert. The research describes their practice-based reality, reflects upon it, analyzes that reality and through research and study of theory devises an action plan that is applied. In this way, practice becomes a dynamic process in which reflection and practice interacts to produce change. Course participants will actively engage in action research on a topic of their choosing and report on the outcomes of their study.

EDU 737 Ph.D. Comprehensive Examination Credit 0.
The purpose of the comprehensive examination is to demonstrate an understanding of knowledge in relevant, related fields of study, which undergirds the student's dissertation research.

EDU 739 Dissertation Research Seminar Sem. 3./Credit 3.
This course is designed to provide doctoral students with the skills necessary to develop a dissertation prospectus. Students learn how to: 1) conduct a literature review; 2) critique relevant theories; 3) write cogent statements of purpose and research question(s); 4) develop a research design and select appropriate methodology and 5) carry out data collection and analysis. This course is also designed to assist students in the development of their research prospectus in preparation for presentation to the Ph.D. Advisory Committee. Students are to complete a draft of at least 3 chapters of their dissertation.

EDU 740 Dissertation Research I Sem. 4./Credit 4.
Designed for students who are preparing a doctoral dissertation. Students enroll in EDUO 740 in the first session after completion of course work (to include the completion of the dissertation prospectus and the Dissertation Research Seminar). The student works on their dissertation (and is required to complete up to three chapters). This work is accomplished under the supervision of their dissertation chairperson and committee, who oversee the student's work toward completion. (Note: Students will have up to three sessions to repeat/complete this portion of the dissertation).

EDU 741 Dissertation Research II Sem. 4./Credit 4.
Designed for students who are preparing a doctoral dissertation. Students enroll in EDUO 741 after successful completion of EDUO 740. The student works on their dissertation (and is required to complete a specified number of chapters as designated by the dissertation chairperson). This work is accomplished under the supervision of their dissertation chairperson and committee, who oversee the student's work toward completion. (Note: Students will have up to three sessions to repeat/complete this portion of the dissertation).

EDU 742 Dissertation Research III Sem. 4./Credit 4.
Designed for students who are preparing a doctoral dissertation. Students enroll in EDUO 742 after successful completion of EDUO 741. The student works on their dissertation (and is required to complete a specified number of final chapters and revisions as designated by the dissertation chairperson). This work is accomplished under the supervision of their dissertation chairperson and committee, who oversee the student's work toward completion. (Note: Students will have up to three sessions to repeat/complete this portion of the dissertation.)

EDU 743 Dissertation Defense III Credit 0.
The doctoral candidate presents and defends their dissertation to their dissertation committee. The course is the culmination of the Ph.D. program.

EGR (Engineering - General)

EGR 101 Introduction to Engineering Lec. 2./Credit 2.
An introduction to professions in engineering. Exposure to fundamental engineering concepts, decision making, and problem solving techniques. Discussion of units and dimensions. Introduction to data presentation and error analysis. Solution of simple engineering problems. Prerequisite: MAT 117.

EGR 102 Introduction to Structured Programming
Lec. 3./Credit 3.
Introduction to engineering computer facilities and Network. Fundamentals of programming concepts, including documentation, logical data types, data objects, subroutines, flow charting, algorithm generation. Solution of simple engineering problems using computers, MATLAB, C, software packages. Prerequisite: EGR 101 Corequisite: MAT 118.

EGR 191 Introduction to Research Topics in Engineering
Sem./Pjt./Credit 1-3.
Designed for freshman level undergraduates. Emphasis will be placed upon introduction to areas of engineering research, regular attendance at appropriate seminars, techniques of literature searches, and background study. This course may be taken twice. Prerequisite: Consent of the department chairman.

EGR 201 Engineering Graphics Lec. 1./Lab 6./Credit 3.
Fundamental means of visualization, communication, and technical problem solving are implemented through integration of solids modeling, pictorial sketching, mental imagery, and computer graphics. Students will become familiar with computer modeling as a design and visualization tool.

EGR 204 Engineering Ethics and Safety Lec. 3./Credit 3.
This course is designed to introduce engineering students to ethics, safety, and quality management. It will allow students to explore the relationship between ethics and engineering and apply classical moral theory and decision making to engineering issues encountered in academic and professional careers. In addition, quality management systems such as ISO 9001 will be covered which relates ethics to workplace and product safety.

EGR 205 Computers and Societal Problems
Lec. 3./Credit 3.
Introduction to the use of the digital computer in the analysis and modeling of engineering problems. Applications of computer tools to the solution of engineering problems. Introduction to network computing and access to the Internet (World Wide Web). Printing, wordprocessing, spreadsheet application, communication, and programming under network environment. Formulation of engineering problems using C. Prerequisite: Previous computer experience.

EGR 208 Engineering Analysis I Lec. 3./Credit 3.
An introduction to engineering problem-solving techniques such as linear and vector algebra, Fourier and Laplace transforms. Prerequisite: MAT 260.

EGR 211 Engineering Mechanics I (Statics)
Lec. 2./Credit 2.
Fundamentals of systems in equilibrium and their effects on particles, systems of particles, and rigid bodies. Scalar and vector analysis methods are developed for two-dimensional and three-dimensional structures. Prerequisites: PHY 203, PHY 215.

EGR 212 Engineering Mechanics II (Dynamics)
Lec. 2./Credit 2.
Kinematics and dynamics of particles. Motion relative to translating and rotating observers; inertial reference systems; central forces and orbits. Kinematics and dynamics of groups of particles and rigid bodies. Prerequisite: EGR 211.

EGR 213 Digital Electronics Lec. 3./Credit 3.
Boolean algebra, combinational circuits, sequential circuits, analysis and design of sequential systems. Multi-input system controllers, asynchronous system design. Prerequisite: None.

EGR 215 Introduction to Thermodynamic Lec. 2./Credit 2.
This course provides an introduction to engineering thermodynamics. Starting with the review of the terminology, the course covers the application of the first and second law of thermodynamics to non-flow and steady-flow processes. Prerequisite: PHY 203, MAT 152.

EGR 216 Introduction to Transport Phenomena
Lec. 3./Credit 3.
This course introduces the student to the general property balance equation and to various transport mechanisms for energy, mass, and momentum. Differential and integral energy, mass, and momentum balances will be derived and applied to engineering problems involving transport in one dimension. Prerequisite: PHY 204, MAT 260, EGR 215.

EGR 218 Circuit Analysis I Lec. 3./Credit 3.
Analysis of electric circuits consisting of resistive and energy storage elements. Basic laws and techniques of analysis. Transient and forced response of linear circuits are introduced. Prerequisite: PHY 204, MAT 152. Corequisite: MAT 260, EGR 220.

EGR 219 Engineering Mechanics Lec. 3./Credit 3.
Introduction to concepts of statics and dynamics. Force systems, equilibrium conditions, distributed forces, kinematics and kinetics of particles, principles of conservation of momentum and energy, analysis of simple structures, work and power. Prerequisites: PHY 203, PHY 215.

EGR 220 Circuit Analysis Laboratory I Lab 3./Credit 2.
This is ECE Laboratory 1. Experiments in electrical systems consisting of analog and digital networks. Linear systems analysis and design and systems performance will be discussed. Prerequisite: PHY 204, PHY 216. Corequisite: EGR 218.

EGR 226 Basics of Electrical Engineering
Lec. 2./Lab 3./Credit 3.
Introduction to basics of electrical engineering. DC and AC circuits, transformers, motors, generators, DC power supply, diode, operational amplifiers, general instrumentation systems, analog and digital signals, logic devices, data acquisition. Prerequisites: PHY 204, MAT 152.

EGR 291 Basic Research Topics in Engineering
Sem./Pjt./Credit 1-6.
Designed for sophomore level undergraduates. Emphasis will be placed upon introduction to basic techniques of conducting research and literature review, regular attendance at selected seminars, and directed work on a research project in engineering. This course may be taken twice. Prerequisite: Consent of the research mentor.

EGR 300 Cooperative Work Study/Internship Training
Credit 3.
The student is placed in an industrial firm or a governmental agency to obtain practical experience in the area of his/her engineering specialty. A minimum of nine weeks of full-time equivalent work is required for the Internship Program. A minimum of six months of full-time work is required for the Cooperative Work Study Program and an additional nine weeks is required for governmental agencies. Written evaluation by a supervisor and a final report for the department chairperson are required for each program. Prerequisites: Completion of sophomore-level courses and consent of department chair.

EGR 301 Fundamental Engineering Concepts Credit 3.
Prerequisite: MGT. A survey of mechanical, industrial and electrical engineering concepts, terminology, analytical methods and applications in the business setting. Focus is on linking engineering concepts, computer-based methodologies and management decision-making.

EGR 303 Engineering Materials Lec. 2./Lab 3./Credit 3.
Fundamentals of material science that allow the understanding of the relationships between structure and properties of materials and the effects of thermal treatment, composition, and mechanical processing. Prerequisites: PHY 203, CHE 201.

EGR 304 Mechanics of Materials Lec. 3./Credit 3.
Analysis of basic machine parts, structural members, parts and connections. Three-dimensional stress and strain. Axial loading, bending and torsion beams. Shear, fatigue and fracture. Statistically indeterminant beams, combined stresses. Prerequisite: PHY 203.

EGR 305 Engineering Analysis II Lec. 3./Credit 3.
Analytical methods of solving engineering problems. Application of Fourier series and integrals, matrix algebra, vector calculus, eigenvalue problems, orthogonal functions, partial differential equations and complex variables. Prerequisite: MAT 260 or EGR 301.

EGR 306 Mechanics of Materials Laboratory Lab 3./Credit 1.
Measurement of stress and strain; study of failure resulting from applied forces, tension, compression, bending, creep and fatigue loading; slump test for concrete, temperature effects, hardness test. Introduction of X-ray diffraction analysis. Prerequisite EGR 303.

EGR 307 Engineering Analysis III Lec. 3./Credit 3.
Basic numerical techniques for efficient solution of science and engineering problems. Root finding, quadrature, interpolation, function approximations, systems of linear and nonlinear equations, solution of differential equations. Development of computer algorithms and use of available software. Prerequisites: Working knowledge of a computer language and EGR 102 and EGR 208.

EGR 309 Introduction to Environmental Engineering Lec. 3./Credit 3.
Chemistry of natural water as it affects hardness, alkalinity, corrosion and carbonate balance. Water treatment chemistry, softening coagulation, and flocculation; chemistry of rivers, oxygen balance nitrogen cycle, carbon cycle, eutrophication; waste water treatment; removal of dissolved organic material, nitrogen, phosphorus and chlorination; classification of organic and inorganic air pollutants; chemical analysis of inorganic pollutants, fluorides, oxidants; chemical analysis of organic pollutants; aliphatic hydrocarbons; control of pollutant emission by absorption, adsorption and combustion. Prerequisites: PHY 203, CME 201.

EGR 311 Analytical Mechanics I Lec. 3./Credit 3.
First half of a two-semester sequence. Concept of statics, including force systems, equilibrium conditions, simple structures, distributed forces, shear and moments, friction and the concept of work, virtual work and stability. Prerequisites: PHY 203, MAT 152.

EGR 312 Analytical Mechanics II Lec. 3./Credit 3.
Continuation of EGR 311. Concepts of dynamics, including kinematics of particles, velocity and acceleration; Newton's law of motion, momentum, work, kinetic energy, potential energy, central force fields, vibrations, resonance, dynamics of systems of particles, kinematics of a rigid body, dynamics of a rigid body. Introduction to Lagrangian-Hamiltonian formulation. Prerequisites: EGR 311.

EGR 314 Engineering Mechanics Lec. 4./Credit 4.
Concepts of statics and dynamics. Force systems, equilibrium conditions, distributed forces, kinematics and kinetics of particles, principles of conservation of momentum and energy, dynamics of rigid body and analysis of simple structures. Prerequisites: PHY 203 and MAT 152.

EGR 315 Engineering Economy Lec. 3./Credit 3.
Evaluation of engineering systems based on quantitative economic considerations; present worth, benefit-cost ratio, depreciation of assets, replacement costs, feasibility analysis, and optimization techniques. Prerequisite: MAT 260, Senior Design Experience.

EGR 391 Intermediate Research Topics in Engineering Sem./Pjt./Credit l-9.
Designed for junior level undergraduates. Emphasis will be placed upon conducting directed research in engineering with a designated research mentor and regular attendance at selected seminars. Review basic literature search techniques. This course may be taken twice. Prerequisite: Consent of the research mentor.

EGR 405 Advanced Engineering Mathematics Lec. 3./Credit 3.
Special functions in mathematics and their applications, Bessel functions, Legendre polynomials, elliptic integrals, Gamma functions, and parabolic cylindrical functions. Prerequisite: EGR 208.

EGR 406 Survey of Nanotechnology Lec. 3./Credit 3.
Survey of the current status and applications of nanotechnology. Methods for the synthesis and characterization of nanomaterials. Computational nanotechnology: applications in nanoscale thermodynamics and transport. Properties and commercial applications of nanomaterials; optical spectroscopy of nanomaterials. Health, environmental and safety issues associated with nanotechnology. Prerequisites: CHE 202, MAT 152, PHY 202 or consent of the instructor.

EGR 491 Senior Research Topics in Engineering Sem./Pjt./Credit 1-12.
Designed for senior level undergraduates. Emphasis will be placed upon participating in an independent research project or making a major contribution to departmental research with a designated research mentor. The student will produce a publication quality research report or thesis. Regular attendance at the engineering seminar series is also required. This course may be taken twice. Prerequisite: Consent of the research mentor.

EGR - Engineering Undergraduate/Graduate

EGR 511 Statistical Methods in Engineering Lec. 3./Credit 3.
To introduce statistical methods and their application to engineering. Probability, probability distributions; statistical inference; linear and nonlinear regression; statistical experimental designs. Prerequisite: MAT 305.

ELN (Electrical Engineering)

ELN 101 Introduction to Computing for ECE
Lec. 3./Credit 3.
Fundamentals of high-level programming languages (e.g. Python, C++, etc), complexity and efficiency analysis, numerical precision and representations, and applications to solving electrical and computer engineering problems.

ELN 215 Computer Architecture I Lec. 3./Credit 3.
Introduction of the fundamentals of computer architecture and organization, including CPU, memory, registers, arithmetic unit, control unit, and input/output components. The course will also include the introduction to hardware descriptive languages. Prerequisite: EGR 213.

ELN 228 Multivariable Engineering Analysis
Lec. 3./Credit 3.
Application-based multivariable analysis covering topics in linear algebra (vector and matrix operations, eigenvalues/eigenvectors, matrix exponentials, etc.), vector calculus, linear vector differential equations, discrete linear systems and vector difference equations. Prerequisite: EGR 102, EGR 219 and MAT 260 or consent of instructor; Co-requisite: EGR 208.

ELN 307 Signals and Systems Analysis Lec. 3./Credit 3.
Introduction to systems, time-domain system analysis, convolution integral, Fourier series and transforms, Fourier analysis of discrete signals, Laplace transforms, state-space analysis discrete-time system. Prerequisite: ELN 302.

ELN 308 Network Theory I Lab Lab 3./Credit 1.
Laboratory experiments consistent with ELN 300. Corequisite: ELN 300.

ELN 309 Circuits and Instruments Lab Lab 3./Credit 1.
Application-based multivariable analysis covering topics in linear algebra (vector and matrix operations, eigenvalues/eigenvectors, matrix exponentials, etc.), vector calculus, linear vector differential equations, discrete linear systems and vector difference equations. Prerequisite: EGR 102, EGR 219 and MAT 260 or consent of instructor; Co-requisite: EGR 208.

ELN 300 Network Theory I Lec. 3./Credit 3.
Ohm's law, Kirchhoff's voltage and current laws, nodal analysis, mesh analysis, Thevenin's theorem, Norton's theorems, power, capacitors, inductors, transient analysis of RL and RC circuits and magnetic circuits. Prerequisites: PHY 204, MAT 260. Corequisite: ELN 308.

ELN 301 Circuits and Instrumentation Lec. 3./Credit 3.
Basic principles of electric measurements, use of test instruments and laboratory techniques, Ohm's law, Kirchhoff's law, Network Theorem and introduction to capacitance and inductance. Prerequisite: PHY 204. Corequisite: ELN 309.

ELN 302 Circuit Analysis II Lec. 3./Credit 3.
Phasors, steady-state AC circuit analysis, operational amplifier AC circuits, AC power analysis, transformers frequency response, resonance. Prerequisites: EGR 218 and EGR 208. Corequisite: ELN 310.

ELN 303 Engineering Electronics I Lec. 3./Credit 3.
Semiconductor diodes, diode applications, zener diodes, bipolar junction transistor, DC biasing, FET, FET biasing, transistor models, small-signal analysis of BJT and FET. Prerequisite: EGR 218 (or ELN 300). Corequisite: ELN 311.

ELN 304 Engineering Electronics II Lec. 3./Credit 3.
Multistage RC, direct and transformer coupled amplifiers, large signal amplifiers, operational amplifiers, oscillator circuits, linear/digital ICS, integrated circuits, SCR and other semiconductor devices. Prerequisite: ELN 303, EGR 208, ELN 228. Co-requisite: ELN312.

ELN 306 Electromagnetic Waves Lec. 3./Credit 3.
Review of vector analysis, electric field intensity, Gauss's law of divergence, electric potential, conductors, dielectrics and capacitors, steady-state, magnetic field, magnetic materials and inductance, time-varying fields, and Maxwell's Equations and introduction to uniform plane wave and transmission lines. Prerequisite: ELN 302, EGR 208, ELN 228. Co-requisite: ELN313. Laboratory experiments consistent with ELN 301. Corequisite: ELN 301.

ELN 310 Circuit Analysis Laboratory II Lab 3./Credit 1.
Laboratory experiments consistent with ELN 302. Corequisite: ELN 302.

ELN 311 Engineering Electronics I Lab Lab 3./Credit 1.
Laboratory experiments consistent with ELN 303. Corequisite: ELN 303.

ELN 312 Engineering Electronics II Lab Lab 3./Credit 1.
Laboratory experiments consistent with ELN 304. Corequisite: ELN 304.

ELN 313 Electro-Optical Communications Laboratory
Lab 3./Credit 2.
This is ECE Laboratory 2. The laboratory experiments are consistent with ELN 306. Lecture material. Prerequisite: ELN 310; Corequisite: ELN 306.

ELN 403 Digital Electronics Design Lec. 3./Credit 3.
Review of Boolean Algebra and Karnaugh maps, arithmetic logic units, multiplexors, demultiplexers, encoders, decoders, programmable logic devices, latches, flip-flops, registers, counters and sequence recognizers. Prerequisite: EGR 213. Corequisite: ELN 431.

ELN 404 Semiconductor Electronics Lec. 3./Credit 3.
Crystal structure, carrier transport, recombination and generation, continuity equation, pn junction, bipolar devices, JFET, MOSFET, crystal growth and epitaxy, lithography and etching, diffusion and ion implantation, integrated devices, photovoltaic cells and environmental stress on devices. Prerequisite: ELN 303.

ELN 408 Introduction to Control Systems Lec. 3./Credit 3.
Control system design process, mathematical modeling, block diagrams, state variable models, feedback control system characteristics, performance criteria, stability, root locus, frequency response methods, design of feedback control systems, robustness, introduction to digital control. Prerequisite: ELN 307, MAT 208, MAT 260. Co-requisite: ELN433.

ELN 409 Electrical Engineering Design I Lec. 3./Credit 3.
Introduction to engineering design process, project planning and implementation, library search and technical research of design projects. Software verification of design projects. Group design projects are presented, approved and supervised by course instructor or other electrical engineering faculty. Student will present his/ her project technical paper in a prearranged seminar. Prerequisites: ELN 304

ELN 411 Energy Conversion Lec. 3./Credit 3.
Fundamentals of electromechanical energy conversion, transformers, DC generators, DC motors, polyphase AC generators, induction motors, synchronous motors, fractional horsepower motors and transient analysis of electric machines. Prerequisite: ELN 302, ELN 310. Corequisite: ELN 435.

ELN 412 Communication Theory Lec. 3./Credit 3.
Review of Fourier series and Fourier transforms, signals and linear systems, amplitude modulation (AM) system, frequency modulation (FM) system, probability and random processes, pulse modulation systems. Prerequisites: ELN 307, MAT 305.

ELN 413 Electrical Engineering Design II Lec. 3./Credit 3.
Additional engineering design process, project planning and implementation, library search and technical research of design projects. Software verification of design projects. Group design projects are presented, approved and supervised by course instructors or other electrical engineering faculty. Student will present his/ her project technical paper in a pre-arranged seminar. Prerequisite: ELN 409.

ELN 415 Computer Architecture Lec. 3./Credit 3.
Introduction to the quantitative basis of modern computer architecture and principles of memory systems, pipelining, instruction-level parallelism, storage systems, multiprocesssors and particular emphasis on the relationships between computer design and application requirements and cost versus performance trade-offs. Prerequisite: EGR 213, CSC 152.

ELN 417 Computer Networks Lec. 3./Credit 3.
An introduction to the architecture and components of wired and wireless computer networks such as applications, network hardware, OSI reference model, TCP/IP reference model and design at various reference layers. Prerequisite: EGR 102 or CSC 151.

ELN 420 Senior Seminar Sem. 1./Credit 1.
Presentation and discussion of selected topics in Electrical Engineering. Professional ethics and registration. Corequisites: ELN 409 and ELN 412.

ELN 422 Digital Communication Lec. 3./Credit 3.
Digital data transmission, multiple access techniques, communication channel models, coding techniques for communication channels and system design consideration. Prerequisite: ELN 307.

ELN 431 Digital Electronic Design Laboratory Lab 3./Credit 1.
Laboratory experiments and design consistent with ELN 403. Corequisite: ELN 403.

ELN 432 Semiconductor Electronics Laboratory Lab 3./Credit 1.
Laboratory experiments consistent with ELN 404. Corequisite: ELN 404.

ELN 433 Control Systems Laboratory Lab 3./Credit 1.
Computer lab design, simulation and analysis consistent with ELN 408. Corequisite: ELN 408.

ELN 434 Electrical Engineering Design I Laboratory Lab 3./Credit 1.
Implementation of the design projects from ELN 409. Design performance judged by a faculty panel. Corequisite: ELN 409.

ELN 435 Electromechanical and Control Systems Laboratory Lab 3./Credit 1.
This is ECE Laboratory 3. The laboratory experiments are consistent with topics covered in ELN 411 and ELN 412. Prerequisite: ELN 302, ELN 310; Corequisite: ELN 411 or ELN 412.

ELN 436 Electrical Engineering Design II Laboratory Lab 3./Credit 1.
Implementation of the design projects from ELN 413. Design performance judged by a faculty panel. Corequisite: ELN 413.

ELN 460 Introduction to Microprocessor Systems Lec. 3./Credit 3.
Assembly language programming, microprocessor arithmetic, microprocessor architecture and operation, buses and system concepts. Prerequisite: ELN 304 and ELN 403.

ELN 462 Modeling and Design of Devices and Systems Lec. 3./Credit 3.
Design of a feasible system using specifications and alternative designs, decision making based on different model analysis within a detailed design, including other design considerations in the design process such as reliability, human factor engineering, and the basics of patent law. Prerequisite: ELN 304 and ELN 403.

ELN 465 Advanced Engineering Measurement Techniques Lec. 3./Credit 3.
An introduction to measurement science and techniques, application to electrical circuits, applications to systems with transducers, application to analog and digital systems, and applications involving microprocessors and personal computers. Prerequisite: ELN 403, ELN 431, ELN 460.

ELN 467 Digital Control Systems Lec. 3./Credit 3.
Sampling processes and theorems, z-transform, modified transforms, transfer functions, stability criteria, analysis in frequency and time domains, discrete state model of systems containing digital computers, and experimental exercises in controlling dynamic processes. Prerequisite: ELN 408.

ELN 469 Introduction to Manufacturing Lec. 3./Credit 3.
Systems approach to manufacturing, tools and concepts needed to integrate the computer in the manufacturing process such as numerical control and programmable controllers, flexible manufacturing systems, group technology, process planning and control, and modeling and simulation of factory operations. Prerequisite: ELN 409.

ELN 471 Electronics and Photonics Devices
Lec. 3./Credit 3.
Study of semiconductor devices, photonics devices, principles of device physics, and applications in integrated electronics and photonics systems. ELN 471: Prerequisite: ELN 303.

ELN 472 Introduction to Laser Systems Lec. 3./Credit 3.
Electromagnetic basis of laser optics, propagation and diffraction of laser beams, Gaussian beams, basic laser spectroscopy, gas laser systems, solid-state laser systems, semiconductor laser systems, and some laser system applications. Prerequisite: ELN 306.

ELN 481 Antennas and Propagation Lec. 3./Credit 3.
Types of antenna systems, radiation characteristics, waveguides, impedance loading, atmospheric propagation, and electromagnetic considerations. Prerequisite: ELN 306.

ELN 482 Computer Engineering Design I Lec. 3./Credit 3.
Introduction to the computer engineering design process, project planning and implementation, library search and technical research of design projects. Software verification of design projects. Group design projects are presented, approved and supervised by course instructors or other electrical/computer engineering faculty. Student will present his/her project technical paper in a prearranged seminar: Prerequisite: ELN 403.

ELN 483 Computer Engineering Design II Lec. 3./Credit 3.
Additional engineering design process, project planning and implementation, library search and technical research of design projects. Software verification of design projects. Group design projects are presented, approved and supervised by course instructors or other electrical/computer engineering faculty. Student will present his/ her project technical paper in a prearranged seminar: Prerequisite: ELN 482.

ELN 488 Computer Engineering Design Lab I
Lab 3./Credit 1.
Implementation of the design projects from ELN 482. Design performance judged by a faculty panel. Co-requisite: ELN 482.

ELN 489 Computer Engineering Design Lab II
Lab 3./Credit 1.
Implementation of the design projects from ELN 483. Design performance judged by faculty panel. Co-requisite: ELN 483.

ELN - Electrical Engineering Undergraduate/ Graduate

ELN 515 Microcontrollers and Embedded Systems
Lec. 3./Credit 3.
Introduction to microcontroller-based systems with laboratory exercises, with emphasis on currently used processors. The course will focus on architecture, structured programming (assembly and higher level) simulation of processors, peripheral interfacing and interrupt management with applications involving control, communication and signal processing. Prerequisites: ELN 304, 312, 403 and 431.

ELN 521 Digital Signal Processing Lec. 3./Credit 3.
General concepts of digital signal processing, continuous-time system analysis, Fourier analysis, the sampling theorem, discrete-time system analysis and realization, z-transforms, finite impulse response (FIR) filters, infinite impulse response (IIR) filters, fast Fourier transforms (FFT), applications of the discrete Fourier transform. Prerequisites: ELN 307.

ELN 523 Digital System Design Lec. 3./Credit 3.
Microcomputer architecture, bus inter connections, memories, serial interfacing, parallel interfacing, magnetic recording techniques, CRT-controller design and software development. Prerequisite: ELN 515. Corequisite: ELN 531.

ELN 525 Electronics and Photonic Devices
Lec. 3./Credit 3.
Study of semiconductor devices, photonic devices; device physics as well as application in integrated electronic design technology. Prerequisite: ELN 404.

ELN 526 Computer-Aided Design for VLSI
Lec. 3./Credit 3.
Facility in the use of design simulations in CMOS design and verification using software packages such as SUPREME, SPICE, SEDAN PICES, ISED, etc. Prerequisites: ELN 304, 403, 431.

ELN 531 Digital System Design Lab Lab 1./Credit 1.
Laboratory experiments or projects, testing and design (hardware and/or software). Consistent with ELN 523. Corequisite: ELN 523.

ENG (English)

ENG 100 Fundamental Writing* Lec. 3./Online/Credit 3.
Introduction to vocabulary and critical approaches relevant to humanistic studies. Concentrated and individualized work in writing and research about one's chosen field. Prerequisite: ENG 101-102. (For students whose diagnostic/placement score and other data indicate a need for additional preparation to required entrance level for ENG 101.) A concentrated review of fundamental writing skills, including organization and development of ideas, grammar, mechanics, and style. *This course offered only on an S/U basis cannot count toward the English requirement in General Education and does not count toward graduation. Successful completion of English 100 is a prerequisite to the English 101-102 sequence. Limited class size: 15.

ENG 101-102 Written Communication I & II
Lec. 3./Online/Credit 3.
Introductory sequence in composition, contributing to the liberal education of students, regardless of their majors. Approaches writing as a process and provides experience in writing with various aims and rhetorical strategies. ENG 101 emphasizes the expressive and expository aims. Focusing upon the persuasive and literary aims, ENG 102 includes the development of a research paper. Prerequisites: Satisfactory completion ("S") of ENG 100 (for those placed in this course), satisfactory completion of ENG 101 ("C" or better).

ENG 200 Principles & Skills of Developmental Reading Lec. 3./Credit 3.
Problems and procedures in the teaching of reading in the content areas.

ENG 201 Traditional English Grammar Lec. 3./Credit 3.
Studies in English grammar, usage, and mechanics designed for those students who need additional review in fundamentals of the English language. Prerequisite: ENG 101-102.

ENG 202 Introduction to Linguistics Lec. 3./Credit 3.
Examines the basic principles and theories of contemporary linguistics and their applications to the teaching, learning, history, and use of the English language. Students will explore studies in linguistic research and examine their own literacy development as readers, writers, and speakers of English. Emphasis will be placed on the complex cognitive system of language acquisition and development, the nature of human language; English phonology, morphology, syntax, and semantics; language variation (ethnic and gender-based discourse patterns), and language change. Prerequisites: ENG 101-102, ENG 201, or permission of department chairperson.

ENG 203-204 English Literature Lec. 3./Credit 3.
Survey of English literature from the Anglo-Saxon period to the present. Works examined in relation to their artistic, historical and philosophical contexts. Prerequisites: ENG 101-102, ENG 208, or permission of department chair.

ENG 205 Written Expression in the Arts Lec. 3./Credit 3.
Introduction to vocabulary and critical approaches relevant to humanistic studies. Concentrated and individualized work in writing and research about one's chosen field. Prerequisite: ENG 101-102.

ENG 206 Introduction to Poetry Lec. 3./Credit 3.
Study of poetry using examples representative of different times, styles, techniques and cultures as models. Emphasis on learning by writing and critiquing. Prerequisite: ENG 101-102 or permission of department chairperson.

ENG 207 Introduction to Fiction Lec. 3./Credit 3.
Study of selected fiction using examples of different times, places, cultures, and techniques as models. Emphasis on learning by writing and critiquing. Prerequisite: ENG 101-102 or permission of department chairperson.

ENG 208 Introduction to Literary Studies Lec. 3./Credit 3.
The introductory course for majors and minors that focuses on analysis of literature, including fiction, poetry, and drama. Particular emphasis is placed on close reading, understanding of essential literary terms, and analytical essay writing. Prerequisite or concurrent with ENG 101-102, or permission of department chair.

ENG 209 Children's Literature Lec. 3./Credit 3.
Survey of field of literature for children from nursery school through grade eight. Consideration of principles governing choice of literature in these grade, compilation of annotated lists of books suited to typical nursery school and elementary school situations, experience in storytelling and dramatization. Prerequisite: ENG 101-102.

ENG 210 211 Introduction to Literature Lec. 3./Credit 3.
A study of literature in a variety of genres, to provide an aesthetic appreciation of the selected works, an understanding of the basic methods of literary analysis, and an understanding of various approaches to writing about literature. English 210 covers the short story and the novel. English 211 covers poetry and drama. Prerequisite: ENG 101-102 for non-English majors.

ENG 213 Adolescent Literature Lec. 3./Credit 3.
Study of selected adolescent novels and other reading materials to acquaint the prospective secondary-school English teacher with the nature, scope, and uses of adolescent literature. Prerequisite: ENG 101-102.

ENG 214 Selections in Literature Lec. 3./Credit 3.
Study of selected works designed to offer basic acquaintance with literature and to encourage independent study and leisure reading. Prerequisite: ENG 101-102.

ENG 215-216 World Literature Lec. 3./Credit 3.
Study of selected world masterpieces in translation, as they relate to artistic, historical and philosophical contexts from which they emerged. Prerequisite: ENG 101-102.

ENG 217 Vocabulary Development Lec. 3./Credit 3.
Study of the composition of the language and trends in its development. Survey of the research findings in vocabulary building. Specific attention is given to available materials for the augmentation of vocabulary. Prerequisite: ENG 101-102.

ENG 218 Technical Communication Lec. 3./Credit 3.
Instruction and practice in practical and technical written communication memoranda, business letters, resumes, instructions, proposals, and analytical reports. Includes basic principles of document design and elementary graphics. Prerequisite: ENG 101-102.

ENG 220 Writing Research Papers Lec. 3./Credit 3.
Instruction in the techniques of writing a research paper, including topic selection, thesis development, data collection, research methodology, rhetorical strategies and proper documentation. Prerequisites: ENG 101-102 and ENG 208.

ENG 300 Literary Criticism and Theory Lec. 3./Credit 3.
Survey of the development of key concepts in literary theory from Plato's ideas on the arts and society through current postmodern theorists. Students will examine primary works by these thinkers and apply contemporary critical approaches to texts. Prerequisites: ENG 101-102, ENG 208, and ENG 220, or permission of department chair.

ENG 301 Law and Literature Lec. 3./Credit 3.
Capitalizing on human interest in law and order and crime and punishment, this course utilizes creative fiction and non-fiction, class exercises, lectures, and discussions as vehicles to examine various aspects of the practice of law and the operation of the judicial system. Prerequisite: ENG 101-102.

ENG 302 African American English Lec. 3./Credit 3.
A sociolinguistics course which examines the rich history and legacy of the language spoken by descendants of African slaves in the United States, and its cultural, social, political, and educational implications. The course focuses on the lexical, semantic, phonological, morphological, and syntactical differences of African American English as a means of communication. Prerequisites: ENG 101-102 and ENG 201, or permission of department chair.

ENG 303 304 Ethnic American Literature Lec. 3./Credit 3.
Study of American ethnic and indigenous literature placed within historical, cultural, and social contexts. Prerequisite: ENG 101-102.

ENG 307 Caribbean Literature and Film Lec. 3./Credit 3.
Survey of the literature and/or film from the Greater/Lesser Antilles. Students will not only contemplate historical developments throughout the Francophone, Anglophone, and Hispanophone countries but also be exposed to similarities/ differences between the various island cultures that contribute to a larger Caribbean collective. Prerequisite: ENG 101-102.

ENG 311 312 American Literature Lec. 3./Credit 3.
Survey of selected prose and poetic works most characteristic of major American authors and their relation to their artistic, historical and philosophical contexts. Prerequisites: ENG 101-102, ENG 208, or permission of department chair.

ENG 313 314 African-American Literature Lec. 3./Credit 3.
Survey of African-American literature from its origins to the present, based on selected works and their relation to their artistic, historical and philosophical contexts. Prerequisites: ENG 101-102, ENG 208, or permission of department chair.

ENG 315 African Literature I Lec. 3./Credit 3.
A survey of ancient and oral literature of the African continent translated into English. The literature studied includes myths, folklore, song, poetry, and epics. The course examines themes, motifs, style, structure of African literature and the literature's relationship to social, cultural, political, historical and economic issues. Prerequisites: ENG 101-102, ENG 208, or permission of department chair.

ENG 316 African Literature II Lec. 3./Credit 3.
A survey of African literature written and translated into English. The periods under examination range from the Colonial period, beginning with the Negritude movement, to the postcolonial period and contemporary fiction. The themes, motifs, style, and structure of African literature are studied in relationship to social, cultural, political, historical and economic issues. Prerequisites: ENG 101-102, ENG 208, or permission of department chair.

ENG 319 Magazine Writing Lec. 3./Credit 3.
A creative writing course which employs narrative strategies and techniques utilized in fiction and poetry, i.e., imagery to structure magazine articles. Prerequisite: ENG 101-102.

ENG 320 Advanced Writing Theory & Practices Lec. 3./Credit 3.
Modern rhetorical strategies including work in heuristics, research techniques, analysis, and logic. Studies in sentence structure, prose rhythm, stylistics, tone and voice. Laboratory work. Prerequisite: ENG 101-102.

ENG 321 Television Writing Lec. 3./Credit 3.
Fundamentals of writing for episodic television in its varied forms, including sitcoms, scripted reality programming, movies for television, and television commercials. Prerequisite: ENG 101-102.

ENG 322 Shakespeare Lec. 3./Credit 3.
Study of plays illustrating periods of Shakespeare's artistic development. Attention to Shakespeare's use of sources, genre, theatrical and social conditions. Students will examine approaches and performances on stage or film. Prerequisite: ENG 101-102.

ENG 323 The Bible as Literature Lec. 3./Credit 3.
Course offers students the opportunity to study various biblical literary forms in the Hebrew Bible (Old Testament) and the New Testament, with emphasis placed on narrative modes and narrative features such as character, plot, irony, and symbolism. Where appropriate, students will examine ways in which Biblical forms, themes, and images have influenced American literature and film. Prerequisite: ENG 101-102.

ENG 325 Great Masters of English Literature Lec. 3/Credit 3.
Examination of selected works by acknowledged greats of English literature, such as Chaucer, Spenser, Donne, Milton, Pope, Wordsworth, and T.S. Eliot. The course employs close, textual analysis to gain an understanding and appreciation of the artistry that characterizes each writer. Prerequisites: ENG 101-102, ENG 208, or permission of department chair.

ENG 328 Eighteenth-Century English Literature Lec. 3./Credit 3.
In-depth study of selected eighteenth century authors. Prerequisite: ENG 203-204 or permission of department chair.

ENG 329 Nineteenth-Century English Literature Lec. 3./Credit 3.
In-depth study of selected nineteenth century authors. Prerequisite: ENG 203-204 or permission of department chair.

ENG 330 Writing and Producing for New Media Lec. 3./Credit 3.
Instruction and practice in writing and producing original content for the internet. The course culminates with students writing and producing content for an original online network developed as part of the course. Prerequisite: ENG 101-102.

ENG 340 The Business of Film Lec. 3./Credit 3.
By utilizing case studies that address many of the most common exigencies related to producing film, students learn how to approach each situation head-on. Students will learn how to create budgets for films, select a crew, secure distribution, and many other tasks that comprise the duties of a film producer. Prerequisite: ENG 101-102.

ENG 341 Scriptwriting for Cinema Lec. 3./Credit 3.
Scriptwriting and production formatting for radio, television and cinema productions. Students examine format and requirements for various types of programs and develop a non-news script from inception to final product. Prerequisite: ENG 101-102.

ENG 398 Professional Internship Trn./Credit 3.
Placement in a professional situation appropriate to a student's academic background and career interest. May be repeated one time for credit. Prerequisite: ENG 101-102, or permission of department chair.

ENG 399 Topics in Literature Lec. 3./Credit 3.
Special topics developed by instructors to introduce students to particular areas of language and literature. Content, approach, and reading vary from semester to semester. Prerequisite: ENG 101-102.

ENG 400 Independent Study Ind. 3./Credit 3.
Scholarly inquiry into a subject of particular interest to the student and instructor. Permission of department chair. This course may not replace ENG 430, ENG 431 or ENG 432.

ENG 401-402 Creative Writer's Workshop Lec. 3./Credit 3.
Workshops in fiction and poetry that use students' creative works as the primary subject matter. Other stories and poems are assigned to serve as models. ENG 401 focuses on fiction and has the prerequiste: ENG 206. ENG 402 focuses on poetry and has the prerequisite: ENG 207.

ENG 403-404 Contemporary Themes in African-American Literature Lec. 3./Credit 3.
Major themes in critical and imaginative literature produced by significant African-American writers. In-depth examination of selected fiction, nonfiction and poetry that reflect concerns of these outstanding African-American writers. Prerequisites: ENG 101-102, ENG 208, or permission of department chair.

ENG 409 410 The Novel Lec. 3./Credit 3.
Study of the development of the English and American novel. Critical consideration given to the evolution of the genre. Prerequisite: ENG 203-204 or permission of department chair.

ENG 414 Introduction to Motion Pictures Lec. 3./Credit 3.
Study of the origins and development of the motion picture with primary emphasis in the entertainment film. Classic films will be shown to illustrate major developments in the medium. Prerequisite: ENG 101-102.

ENG 417-418 Senior Thesis—Expression Lec. 3./Credit 3.
An intensive reading and writing course. Students in 417 will be required to draft a major piece of writing that reflects the conventions of the particular genre chosen as reflected in current theory and practice. In ENG 418 students are required to refine the draft into a finished work, submit it to a faculty committee, and present/defend it in a public venue. Students must earn at least a "C" in 417 in order to enroll in 418. Prerequisites: ENG 208, ENG 220, ENG 300 and ENG 320.

ENG 419 420 Senior Thesis Lec. 3./Credit 3.
An intensive reading and writing course that focuses on an author, a literary period, a genre, or a major theme. Each student in 419 will be required to draft a major piece of writing, creative or scholarly, applying the conventions appropriate to the work in question. In 420 students will revise their drafts. The final drafts must be presented in a public forum and approved by a faculty committee. Students must earn at least a "C" in 419 to enroll in 420. Prerequisites: ENG 208, ENG 220, ENG 300 and ENG 320.

ENG 421 Introduction to Filmmaking Lec. 3/ Credit 3
An overview of the short film format, music videos, and documentary filmmaking. Prerequisite: ENG 101-102.

ENG 422 Film Criticism Lec. 3./Credit 3.
Historic and Aesthetic contributions of famous filmmakers and film critics are examined through critical analysis techniques. Prerequisite: ENG 101-102.

ENG 423 Film Direction and Editing Lec. 3./Credit 3.
Instruction and practice in the industry standards of directing and editing. Students learn to use Final Cut Pro editing software, the industry standard, and also explore the importance of collaboration between director and editor in the filmmaking process. Prerequisite: ENG 101-102 and ENG 421.

ENG 425 Introduction to Digital Cinematography Lec. 3./Credit 3.
An overview of the fundamentals of the selection and use of lighting, camera lenses, and other equipment for digital film production. Prerequisite: ENG 101-102.

ENG 430 Capstone Experience—Arts Lec. 3./Credit 3.
This climactic course in the major, and the primary means of exit assessment, will vary in format, content and requirements based upon the concentration. Prerequisites: ENG 101-102, ENG 208, ENG 220, and ENG 300.

ENG 431 Capstone Experience—Creative Writing Lec. 3./Credit 3.
This climactic course in the major, and the primary means of exit assessment, will vary in format, content and requirements based upon the concentration. Prerequisites: ENG 101-102, ENG 206207, ENG 208, ENG 220 and ENG 401-402.

ENG 432 Capstone Experience—Film Studies Lec. 3./Credit 3.
This climactic course in the major, and the primary means of exit assessment, will vary in format, content and requirements based upon the concentration. Prerequisites: ENG 101-102, ENG 208, ENG 220, ENG 330, ENG 341 and ENG 421.

ENG - English – Undergraduate/Graduate

ENG 501 History of the English Language Lec. 3./Credit 3.
Survey of the development of the English language from its IndoEuropean origins to the present. Emphasis upon phonological, morphological and syntactical changes and their causes.

ENG 503 English Composition for Graduate Students
Lec. 3./Credit 3.
Emphasis on the tools and techniques of research and investigation with a special attention to form and content of research papers and thesis. The minimum passing grade is "B".

ENG 519 The Writer and the Age Lec. 3./Credit 3.
Seminar on a major writer or writers in relation to the chief historical movements of the appropriate age. Extensive reading and critical writing based on individual interest and need.

ENG 599 Independent Study Lec. 3./Credit 3.
Scholarly address to subjects of particular interest to the student and instructor. Course may be repeated once for credit with a change in subject matter. (Permission of instructor).

ESC (Environmental Science)

Note: All ESC courses are now designated as MES

ETR (Entrepreneurship)

ETR 210 Introduction to Entrepreneurship
Lec. 3./Credit 3.
Introduction to the practical and theoretical considerations involved in entrepreneurship. Surveys the preparation of business plans, strategies for financing, market assessment, development and protection of business ideas, management, and strategies for survival for new business ventures.

ETR 315 Financing New Business Ventures
Lec. 3./Credit 3.
In-depth assessment of successful techniques used to finance new business ventures. Discussion includes traditional and creative approaches. Emphasis is on new start-ups, buyouts and franchises. Prerequisites: ACC 203, 204; FIN 304.

ETR 350 New Ventures: Start-Ups, Buyouts and Franchising Lec. 3./Credit 3.
Focuses on the opportunities and challenges involved with starting, acquiring, owning and operating new business ventures. Students write and evaluate business plans, oral presentations, and elevator pitches for new business ventures. Prerequisites: ETR 210.

ETR 395 Creativity, Innovation & Product Development
Lec. 3./Credit 3.
Focuses on the process of creating a new concept and taking it to the marketplace. Examines new business ideas from the conception and development to commercialization of the product or service in the business life cycle. Includes protecting ideas with patents, copyrights, and trademarks. Prerequisite: ETR 210.

ETR 401 Strategies for Growth of New Business Ventures
Lec. 3./Credit 3.
Focuses on the management of new business ventures for growth and sustainability with an emphasis on entrepreneurial (creative and independent) leadership. Explores the opportunities and challenges associated with managing in a high growth organization. Provides case study of new business ventures operating in a high growth environment. Explores the realities of and strategies for managing business failures. Includes an extensive oral and written communication component with the formal preparation and presentation of a complete business plan. Prerequisites: FIN 304; MGT 305 and MKT 305 or higher or MBA313.

ETR 410 Legal Issues for Entrepreneurs Lec. 3./Credit 3.
Focuses on legal issues that are especially relevant or important to entrepreneurs. Includes contract law, property law, agency law, intellectual property law, bankruptcy law and certain aspects of regulatory law pertaining to matters such as environmental, employment, securities and consumer product safety issues, legislation and regulation. Prerequisite: ETR 210, MGT 305.

ETR 420 Special Topics in Entrepreneurs Lec. 3./Credit 3.
Focuses on collective exploration of contemporary and specialized issues affecting entrepreneurs. Provides exposure to executives, politicians, researchers and other professionals in order to explore selected topics affecting specific industries or certain types of businesses. Prerequisite: ETR 210.

ETR 435 Entrepreneurial Internship Lec. 3./Credit 3.
Structured and intensive experiences with executive mentors intended to inculcate decision making and risk management skills. The internship experience and executive mentors must be preapproved. The student and mentor will collaborate with a faculty advisor during the period of internship. Prerequisite: ETR 210.

ETR 445 Small Business Consulting Lec. 3./Credit 3.
Structured experiences with executive mentors intended to expose students to entrepreneurial thinking with demonstrations of decision making and risk management skills. The internship experience and executive mentors must be pre-approved. The student and mentor will collaborate with a faculty advisor during the period of internship. Prerequisite: ETR 210.

ETR 460 Independent Study in Entrepreneurship
Lec. 3./Credit 3.
Focuses on the development of small businesses after examining the opportunity, defining the business and reviewing customer behaviors. Theory and experience are combined for individual and organizational development. Requires Senior status and approval of program director.

ETR 499 Entrepreneurship Practicum Lec. 3./Credit 3.
This course prepares the student to launch a new business venture. Students enrolled in the course must prepare a complete and final business plan design to secure investors and guide employees in creating a new business venture. Requires Senior status and permission of the program director.
FIN (Finance)

FIN 290 Personal Finance Lec. 3./Credit 3.
An introduction to personal money management. Topics include savings and investment alternatives, budgeting, use of credit, basics of stocks and bonds, insurance as a risk reduction tool, and the role of real estate in a personal portfolio. Not open to Finance majors.

FIN 304 Business Finance Lec. 3./Credit 3.
Study of concepts and techniques for determining the need, acquisition and management of financial resources of the firm. Introduction to analysis of financial statements. Prerequisites: ACC 203, MGT 215, ECO 201, MAT 117.

FIN 309 Managerial Finance I Lec. 3./Credit 3.
An intensive study of the asset side of the balance sheet. Major emphasis is directed toward analyzing the decision process involved in acquiring assets, managing assets, and forecasting the flow and use of assets. Special attention devoted to defining and measuring risk. Prerequisite: FIN 304.

FIN 310 Managerial Finance II Lec. 3./Credit 3.
An intensive study of the liability-equity side of the balance sheet. Topics include capital structure, valuation, debt financing, common and preferred stock, convertibles, warrants, and dividend policy. Prerequisite: FIN 304.

FIN 335 Credit Analysis and Administration Lec. 3./Credit 3.
An in-depth study of financial statements, the types of commercial credit, and the techniques and criteria for determining credit worthiness. Emphasis is on decision making from the lender's perspective. Prerequisite: FIN 304.

FIN 360 Finance Cooperative Education/Internship Credits 3-9.
Co-ops and internships are on-the-job experiences in the area of finance in business or government to serve as a laboratory for integrating the theoretical with practical experiences. Co-ops are for a six-month duration and worth up to 9 credits whereas internships are for summer employment and worth 3 credits. Students may arrange for co-ops or internships in their junior and senior years. Prerequisite: Permission of the department chairperson.

FIN 403 Principles of Investment Lec. 3./Credit 3.
An examination of the nature of the securities markets and the valuation of various types of securities for institutional and personal investments. Emphasis is placed on fundamental analysis of securities. Prerequisites: FIN 304.

FIN 409 Portfolio Management Lec. 3./Credit 3.
A study of the quantitative techniques employed in portfolio construction and performance evaluation. Topics include the Capital Asset Pricing Model, the Markowitz portfolio model, utility in risk analysis, portfolio policies and strategies. Prerequisite: FIN 403.

FIN 413 Insurance Principles and Practices Lec. 3./Credit 3.
Survey of backgrounds, vocabulary, principles, and practices of insurance. Social insurance and risk-bearing in fire, casualty, marine, life, and corporate suretyship; and their supervision by public authority. Prerequisite: FIN 304.

FIN 418 Business Professional Insurance Risks and Coverages Lec. 3./Credit 3.
Study of applicable insurance coverages to insure business and professional exposures in property, liability, surety, life and health (individual and group) and other miscellaneous coverages for the commercial exposure. Will include case studies of designated business needs and inclusion of insurance cost in budgeting and other aspects of business planning. Prerequisite: FIN 304.

FIN 420 Commercial Bank Management Lec. 3./Credit 3.
An analysis of asset, liability, capital management in commercial banks and related financial services organizations; the financing of business, and other entities; strategy with regard to products and markets, organizational structure, and management risk. Prerequisite: FIN 304.

FIN 421 Financial Markets and Institutions Lec. 3./Credit 3.
An analysis of money and capital markets, a survey of the nature and operation of financial institutions, federal and state regulations to which they are subject and the theory of interest rates. Prerequisite: FIN 304.

FIN 422 Current Problems in Finance Lec. 3./Credit 3.
Application of financial models and concepts to case studies involving financial aspects of the firm. Case analyses are designed to require the student to make use of integrative and critical thinking skills. Knowledge of financial management concepts from lower level courses is assumed. Prerequisites: FIN 309 or 310.

FIN 430 Seminar in Banking Lec. 3./Credit 3.
Special topics in Banking. Contemporary readings and guest lecturers will be used extensively. Prerequisites: Finance major.

FIN 431 Investment Banking Seminar Lec. 3./Credit 3.
A discussion of issues and strategies relating to underwriting and placement of equity and debt instruments, for private and public issues. Prerequisite: FIN 304.

FIN 440 Risk Management Principles Lec. 3./Credit 3.
An overall survey of current Risk Management procedures, including a study of the development of Risk Management techniques involving identification, evaluation, methods of handling risk, implementation, review and reports. Selected risks will be studied from the viewpoint of a Risk Manager. Prerequisite: FIN 304.

FIN 450 Principles of Real Estate Lec. 3./Credit 3.
General course dealing with real property, including study of contracts, descriptions, real estate mortgages, landlord-tenant relations, and mechanical liens. Prerequisite: FIN 304.

FIN 495 Independent Study Research Lec. 3./Credit 3.
Instructor directed independent study or research exploration in selected finance area topics. Prerequisite: Senior standing and permission of the department chairperson.

FIN 499 Advanced Topics in Investments Lec. 3./Credit 3.
An analysis of advanced trading strategies for optons, commodities, futures, and other derivative items and the creation of new financial instruments. Also includes Financial Engineering, the study of how investment decisions and portfolio management can be solved numerically and/or simulated using mathematical models. Prerequisite:FIN 403.

FLA (Modern Foreign Language)

FLA 101 Foreign Language Diction
Lec. 3./Lab 1./Credit 3.
Instruction in French, Italian, and German for singers. Pronunciation and correct vocal usage stressed.

FRE (French)

FRE 101-102 Elementary French
Lec. 3./Lab 1./Online/Credit 3.
Introductory course designed to develop the four skills listening, speaking, reading and writing. Oral proficiency and communicative competence stressed.

FRE 201-202 Intermediate French Lec. 3./Lab 1./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic French, Quebecois and African texts. Prerequisites: FRE 102 or the equivalent.

FRE 217 French for Business and Industry
Lec. 3./Lab 1./Credit 3.
Communication in the Francophonic world of business. Study of commercial and economic vocabulary, and trade and advertising practices of Europe, Africa, and Quebec. Prerequisite: FRE 201 or the equivalent. May be substituted for FRE 202.

FRE 301-302 Advanced Oral and Written Expression
Lec. 3./Credit 3.
Intensive practice in speaking. Review and further analysis of grammatical structures and idiomatic expressions. Prerequisite: FRE 202 or the equivalent.

FRE 303-304 Civilization of France and Francophone Countries Lec. 3./Credit 3.
A broad survey of French civilization and francophone cultures. Emphasis first semester on the history of France from early periods to modern times. Emphasis second semester on the twentieth century, including colonialism, decolonization and the French presence in Africa, the Americas and Asia. Prerequisite: FRE 202 or the equivalent.

FRE 305 French Literature in English Translation
Lec. 3./Credit 3.
A study of selected masterpieces of French Literature. May not be taken to fulfill foreign language requirement of major requirement.

FRE 306 Afro-French Literature Lec. 3./Credit 3.
A concentration on a specific topic, author, area in the literature of French-speaking Africa and the Caribbean. Three class hours a week. Either semester. Prerequisite: FRE 202 or equivalent.

FRE 321-322 Introduction to Literature Lec. 3./Credit 3.
A survey of French Literature through the study of selected works. First semester includes survey of Middle Ages, the Renaissance, and the 17th century. Second semester surveys of 17th through the 20th. Prerequisite: FRE 202 or the equivalent.

FRE 440 Experiential Learning Lec. 3./Credit 3.
Can include study abroad, research abroad, domestic or international internships.

GEO (Geography)

GEO 201 World Regional Geography Lec. 3./Credit 3.
The physical environment of atmosphere, land, and water provides the setting for systematic study of cultural variations across world political regions.

GEO 202 Economic Geography Lec. 3./Credit 3.
Patterns of economic activity across the physical and cultural landscapes are treated at the level of the manufacturing plant, the corporation, and the industry, as well as at local to international scales.

GEO 203 Physical Geography Lec. 3./Credit 3.
A survey of the major physical feature of the earth's land and water biomes; consideration of natural resources and the principles and practices involved in map construction and interpretation. Prerequisites: Basic preparation in the physical and biological sciences; at least one course in American or World History.
GER (German)

GER 101-102 Elementary German Lec. 3./Lab 1./Credit 3.
Introductory course designed to develop the four skills listening, speaking, reading and writing. Oral proficiency and communicative competence stressed.

GER 201-202 Intermediate German
Lec. 3./Lab 1./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic German texts. Prerequisites: GER 102 or the equivalent.

GER 300 Readings in Scientific German
Lec. 3./Lab 1./Credit 3.
Open to students majoring in science. Prerequisite: GER 202 or the equivalent.

GER 301 German Literature in English Translation
Lec. 3./Credit 3.
Study of selected works of contemporary writers.

GER 303 German Civilization Lec. 3./Credit 3.
History of German culture geography, history, art and social customs. Prerequisite: GER 202 or consent of the instructor.

GER 304-305 Advanced German Conversation
Lec. 3./Credit 3.
Extensive practice in spoken and written German based on various prose readings. Intensive grammar and vocabulary review.

GER 321 Topics in German Literature and Culture
Lec. 3./Credit 3.
This course exposes students to important political and social issues through the study of literary works, films, arts and music. Focuses on conversation.

GER 440 Experiential Learning Lec. 3./Credit 3.
Can include study abroad, research abroad, domestic or international internships.

GRE (Greek)

GRE 101-102 Elementary Greek Online/Credit 6.
This course will introduce students to the basics of Koine Greek vocabulary and grammar, for the expressed purpose of reading the Greek New Testament in its original language. An inductive approach employing biblical verses to illustrate grammatical points, will allow exposure to the canonical writing themselves from the start. There will also be discussion of important Greek terms and concepts from the biblical readings.

GRN (Gerontology)

GRN 201 Foundations of Gerontology Lec.3/Credit 3.
This introductory course explores theories of aging and synthesizes the bio-psycho-social understanding of aging to build a gerontological knowledge base. Students will explore a gerontological perspective through knowledge of the growth and development of aging and through self-reflection.

GRN 202 Health Promotion and Well-Being of Aging
Lec. 2/Credit 2.
This course explores health promotion of older persons to maximize well-being, health and mental health. Students will explore concepts of epidemiology, levels of prevention, and risk assessment for health promoting activities. Students will explore access and utilization of resources that support older adults, caregivers and end of life planning.

GRN 301 Biological Aspects of Aging Lec. 3/Credit 3.
This course relates biological theory and science to understand senescence, longevity and variations in aging. Students will distinguish normal biological and pathological changes at the cellular and organ system level.

GRN 302 Psychosocial Aspects of Aging Lec. 3/Credit 3.
This course relates psychological and social theories and science to understand adaptation, stability, inequality and changes of aging. Students will recognize normal variations and complications of aging in intelligence, cognition, and mental health. Students will develop an appreciation for older individuals' wisdom, resilience, and meaningful engagement in life.

GRN 400 Programs, Services and Policy Lec. 3./Credit 3.
This course presents methods to identify, develop, implement and evaluate the effectiveness of health education Programs. This course incorporates knowledge and skills of research, epidemiology, proposal writing, budget planning, project management, and program evaluation. Students will explore policy equitability to address the needs of older persons. Prerequisite: Undergraduate course in Research methods

GRN 499 Gerontology Internship Lab 12hr./Credit 4.
Internship experiences may be completed in various work environments: public health departments, clinics, hospitals, provider offices, non-profit organizations, community or commercial settings, both domestically and abroad. Students will promote engagement of older adults in life-long learning opportunities, engage in research to advance knowledge for older persons, engage collaboratively with others to promote integrated approaches to aging, and engage in effective communication with older adults, their families, and the community in issues of aging. Students will adhere to ethical principles to guide work with older persons.

HEA (Health Education)

HEA 104 Introduction to Health Education
Lec.3./Credit 3.
Designed to introduce the student to the historical, professional, and philosophical background of personal, school, and community health education, emphasizing the influences of federal, state, and local governments.

HEA 200 Health Education Lec. 2./Online/Credit 2.
Designed to help the student to understand himself/herself as a human organism; to become familiar with various influences that affect health; to coordinate experiences for more effective understanding of healthful living in the world of today; and to aid himself/herself in solving personal health problems. Fall and spring semesters.

HEA 203 Advanced Concepts of Health Lec. 3./Credit 3.
A comprehensive content course focusing upon health concepts essential for promoting health and preventing illness, disability, and premature death. The following leading health indicator areas will be covered: mental health, injury and violence, overweight and obesity, substance abuse, tobacco use, environmental quality, immunization, access to health care, and physical activity. An introduction to the goals of increasing quality of years of healthy life and eliminating health disparities. Prerequisite. HEA 200.

HEA 204 School Health Lec. 3./Credit 3.
This course is designed to provide an introduction to healthy schools and healthy youth. Topics will include school health program models, administration and program evaluation, data and statistics, critical health topics for children and adolescents, tools and resources, partners and collaboration, and funding sources.

HEA 205 Introduction to the Health Education Profession
Lec. 3./Credit 3.
Designed to familiarize the student with professional terminology, ethics, responsibilities, and relationships in health education.

HEA 208 Introduction to the Health Profession
Lec. 3./Credit 3.
Designed to familiarize the student with professional terminology, professional ethics, inter and intra-professional relationships, educational requirements, and employment and career opportunities in health education and related professions.

HEA 211 First Aid, CPR and Safety Lec. 3./Credit 3.
Designed to provide background in the areas of First Aid, Cardiopulmonary resuscitation, and basic concepts of safety. Certificates will be awarded upon successful completion of the course.

HEA 218 Current Issues in Health and Safety Education
Lec. 3./Credit 3.
Designed to promote accuracy in presentation of scientific information on topics and principles of health interest, to identify critical health issues in society today, and to chart possible directions in prevention, maintenance, treatment, research, and service.

HEA 304 Athletic Training Practicum Lec. 1-4./Credit 1-4.
Designed to provide the student on-the-job training. Students receive practical experiences in organization and management as an Assistant Student Athletic Trainer assigned to an athletic team under the supervision of a Certified Athletic Trainer. May select a maximum of four (4) semester hours during junior and/or senior years. Prerequisites HEA 211, HEA 309, BIO 224, BIO 225. Permission of instructor.

HEA 305 Physical Fitness, Conditioning and Weight Control Lec. 3./Credit 3.
Includes the key principles involved in fitness, weight control conditioning, and diet, with special emphasis on interrelationships and application to individual lifestyles. A theoretical and clinical component in which the student applies principles to own lifestyle and that of one other individual is included. In addition, techniques for proper assessment of one's health status in these areas will be covered, and individually prescribed programs of exercise and diet planned.

HEA 309 Prevention and Care of Athletic Injuries
Lec. 3./Credit 3.
Consideration is given to the prevention, care, and treatment of athletic injuries. Techniques in conditioning, taping, and training room organization.

HEA 312 Advanced First Aid Lec. 3./Lab 3./Credit 3.
Includes all of the topics included in the ARC Standard First Aid Course in more depth, with added units on emergency childbirth and extrication from automobiles, cave-ins, etc. A great deal of emphasis is placed on first aid skills and techniques with some choice as to selection of relevant topics for in-depth study is provided.

HEA 323 Health Education Methodology
Lec. 2./Lab 1./Credit 3.
This course is designed to provide an understanding of the knowledge, skills, and processes for teaching health education, including content knowledge, instructional strategies, lesson and unit planning, standards of learning, student assessment, and new and emerging instructional technology.

HEA 401 Substance Use and Abuse Lec. 3./Credit 3.
A practical survey of the status, trends, and scope of the drug use and abuse problem. A fresh look at prevention, education, treatment, and rehabilitation.

HEA 403 Health Care in the United States
Lec. 3./Credit 3.
A survey seminar course which offers an analysis of the demand, cost, and supply of health care.

HEA 441 Health and Aging Lec. 3./Online/Credit 3.
A study of the common health challenges associated with aging and their causes, and a review of life-enhancing measures believed necessary to optimize healthful aging. To include physical, mental, and social aspects of aging and the interrelationships among them.

HEA 453 Community Health Organization
Lec. 3./Credit 3.
Principles and practices in community health, including the organization and administration of community health agencies. Exploration of causative factors of community health problems and possible solutions.

HEA 454 Directed Readings in Health Education
Lec. 3./Credit 3.
This course provides the upper level student with an overview of the myriad of health and health-related topics for close examination under the supervision of a major instructor. Current technological changes, future implications, problems in the field, and more are covered. The reading will be individualized to an extent and geared to meet the needs and interests of the class.

HEA 504 Health in the Elementary School
Lec. 3./Credit 3.
Fundamental components of the elementary school health program. Problems of educational organization, objectives, curriculum development, supervision, and teaching methods and materials as they relate to the elementary school program.

HEA 550 Sexuality Education Lec. 3./Credit 3.
The major emphasis in this course is to acquaint educators with basic instructional content, techniques, resource materials and references in the area of human sexuality. Interpretation of current curricular trends. Suitability of content and methods as determined by needs, interests, and abilities of diverse student populations will be discussed. A fresh look at critical areas in sexuality education.

HEB (Hebrew)

HEB 101–102 Elementary Hebrew Online/Credit 6.
This course will introduce students to the basics of Biblical Hebrew vocabulary and grammar, for the expressed purpose of reading the Hebrew Bible / Old Testament in its original language. An inductive approach employing biblical verses to illustrate grammatical points, will allow exposure to the canonical writing themselves from the start. There will also be discussion of important Hebrew terms and concepts from the biblical readings.

HIS (History)

HIS 105 World Civilizations I Lec. 3./Online/Credit 3.
Surveys development of human societies from the first literate, urban civilizations (3500 B.C.) to the middle of the 18th century. Themes emphasized include economic, religious, intellectual, social (gender, race, age, families, communities), ecological, political, and military history. Selected historical events in Asia, Africa, Europe, and the Americas will be considered. (Required of history and history-social science education majors).

HIS 106 World Civilizations II Lec. 3./Online/Credit 3.
Surveys the period from the French Revolution (1789) to the present, years when many aspects of the contemporary world were shaped. Themes emphasized include economic, religious, social (gender, race, age, families, communities), ecological, political and military history. Selected historical events in Asia, Africa, Europe, and the Americas will be considered.

HIS 107 Survey of African-American History Lec. 3./Online/Credit 3.
Part of the World Civilization sequence, a survey of the experiences of Blacks in America from 1500 to the present. Includes material about peoples and institutions of pre-colonial Africa and the Atlantic slave trade.

HIS 108 American History Survey: Colonial Period to the Present Lec. 3./Credit 3.
This course serves as a lecture course that surveys the political, economic, and social characteristics of American development from the colonial period to the present. Virginia studies are included. Instruction and content are multicultural in orientation with particular emphasis on major trends, issues and events. Note that HIS 108 includes Virginia Studies.

HIS 201 History of the United States to 1865 Lec. 3./Credit 3.
Intensive study of political, economic, and social and intellectual development of American society from the colonial period to the end of the Civil War. Note that HIS 201 includes Virginia Studies.

HIS 202 History of the United States from 1865 Lec. 3./Credit 3.
Intensive study of political, economic, social and intellectual development of American society from Reconstruction to the present.

HIS 203 Historical Methods Lec. 3./Credit 3.
Introduction to historical research and writing; location and use of primary and secondary sources; skills of historical analysis; and questions of style. Prerequisite for HIS 425.

HIS 205 Sea Power and Maritime Affairs Lec. 3./Credit 3.
Course traces evolution of major naval and maritime nations as they are affected by changes in technology and uses of sea power in the context of their political, economic, and diplomatic relations. Special emphasis is placed on the role which American naval and maritime affairs played in the rivalries of great world powers during the colonial period, spread of revolutionary movements, and the civil and international conflicts of the 19th and 20th centuries.

HIS 218 Cultural and Political History of Africa (1) Lec. 3./Credit 3.
Systematic study of the history of pre-colonial Africa. Themes covered will include the methodology for reconstructing history without documents, impact of Islam, African kingdoms and empires, slavery and the Atlantic slave trade, and African European relations to the dawn of the new imperialism.

HIS 220 Cultural and Political History of Africa (2) Lec. 3./Credit 3.
Examines European colonialism in Africa, models of colonial policies and the impact of African societies, the rise of nationalism and the process of decolonization, and the aftermath of political independence in Africa.

HIS 222 History of the United States Military Lec. 3./Credit 3.
Survey of the role played by the armed forces in American society. It will emphasize military policy, organization, and technology, relating them to political, social, and economic developments during this period. Selected major American wars will be examined to illustrate the broad themes in the American military experience.

HIS 301 American Colonial History Lec. 3./Credit 3.
African and European colonization of the American peoples; the evolution of democratic institutions and slavery; the Revolution; and national independence. Note that HIS 301 includes Virginia Studies.

HIS 302 The Early National Period, 1789-1840 Lec. 3./Credit 3.
Focuses upon the United States in its formative years as a new nation. Beginning with adoption of the Constitution, issues of nationalism and sectionalism, developing political parties, tensions over economic development, slavery, Indian policy, and foreign policy will be explored.

HIS 303 Women in History Lec. 3./Credit 3.
A cross-cultural survey of selected issues affecting the historical status of women in Africa, Asia, Europe and the Americas, with emphasis on women in the United States since 1890.

HIS 305 History of East Asia to 1850 Lec. 3./Credit 3.
Examination of traditional civilizations of China and Japan; attention to geography, government, culture, economics, and to the coming of the West in the 19th century.

HIS 306 History of East Asia since 1850 Lec. 3./Credit 3.
Examination of China and Japan after the coming of the West in the 19th century. A close look is given to internal changes and rise to world power status.

HIS 307 History of Ancient Greece and Rome Lec. 3./Credit 3.
Examination of Greek and Roman civilization beginning with Homeric Greece, ending with dissolution of the Western Roman Empire.

HIS 308 Historiography of the African Diaspora Lec. 3./Credit 3.
Group discussion of important interpretive works in the history of Africa and the African diaspora, including Latin America and the Caribbean. Purpose is to ensure that all history majors have read key books and articles and understand the fundamental historiographical literature which overlaps single period or area courses.

HIS 309 Russian History Lec. 3./Credit 3.
Survey of political, economic, social, and intellectual history of Russia from its origin to present.

HIS 310 History of Modern South Asia Lec. 3./Credit 3.
Examination of cultures of Indian subcontinent and Southeast Asia; their response to the impact of the West, their role in modern world.

HIS 311 Medieval Civilization Lec. 3./Credit 3.
Survey of political, economic, social, and cultural issues and developments in Europe from dissolution of Western Roman Empire to Renaissance.

HIS 312 History of England I Lec. 3./Credit 3.
Emergence of modern Britain; political, social, economic, and cultural issues and developments; foreign relations and background of the empire under the Tudors and Stuarts during the sixteenth and seventeenth centuries.

HIS 313 History of England II Lec. 3./Credit 3.
Cultural, political, economic and social issues and developments, foreign relations, industrial revolution, the empire during the eighteenth and nineteenth centuries.

HIS 314 American Social History Lec. 3./Credit 3.
Surveys the major social forces that have shaped the daily lives of the American people from the colonial period to the present. Special emphasis is placed on the impact of these forces on major institutions such as the family, religion, education and work.

HIS 315 American Intellectual History Lec. 3./Credit 3.
Surveys major ideas, thinkers, and intellectual movements in American history and their relationship to popular culture.

HIS 316 Response to Industrialism, 1877-1918 Lec. 3./Credit 3.
Examination of the impact on American life of rapid industrialization in the years between the end of Reconstruction and World War I. Topics include conflicts between capital and labor, growth of corporations and government regulation, the "New South" of industry, sharecropping and segregation, agrarian dissent, urbanization and reform, and the U.S. as a colonial and world power.

HIS 317 Economic History of the United States Lec. 3./Credit 3.
American capitalism from colonial beginnings; role of America in present world economy.

HIS 318 Constitutional History of the United States Lec. 3./Credit 3.
Development of American constitutional thought and practice; emphasis on divergent interpretations of the Constitution.

HIS 319 The Renaissance and Reformation, 1400-1650 Lec. 3./Credit 3.
Political, economic, and intellectual changes that characterized the waning of medieval civilization. Nature of Renaissance humanism and Protestant revolt, and their roles in formation of early modern European society. Prerequisite: HIS 105-106.

HIS 320 Early Modern Europe, 1650-1815 Lec. 3./Credit 3.
The origins of modern science, major thinkers of the Enlightenment, royal absolutism; the development of English constitutionalism, analysis of the French Revolution and Napoleon.

HIS 326 Recent American History, 1918 Present Lec. 3./Credit 3.
Examination of the changes experienced in the United States during the twentieth century. Topics covered include: World War I, The Great Depression, World War II, Cold War, and Vietnam.

HIS 330 Nineteenth-Century Europe Lec. 3./Credit 3.
Survey of Europe from Napoleon's downfall to the eve of World War I. Development of industrial capitalism, class conflict, political ideologies, nation-building, and imperialism.

HIS 331 Twentieth-Century Europe Lec. 3./Credit 3.
Focuses upon the causes and results of world wars, depressions, totalitarian ideologies, Cold War, decolonization movement, contemporary scene, and American influence.

HIS 332 History of African-Americans I Lec. 3./Credit 3.
Role of Black Americans from their origin in sub-Saharan Africa to the end of Reconstruction. Emphasis placed on the nature of American slavery; the abolitionist movement, and post-emancipation experiences.

HIS 333 History of African-Americans II Lec. 3./Credit 3.
Focuses on the United States in the recent period, examines the progress of African-Americans in the twentieth century with emphasis on cultural and intellectual contribution, and the struggle for self-identity and human rights.

HIS 340 Civil War and Reconstruction Lec. 3./Credit 3.
Examination of the causes of the Civil War, the war years, and successes and failures of Reconstruction.

HIS 351 American Religious History Lec. 3./Credit 3.
Historical development of organized religion in America from colonial times to the present. Attention will be paid to the relationship between religious change and other aspects of American society.

HIS 352 American Urban History Lec. 3./Credit 3.
The development of American cities and attempts to deal with changing urban problems from colonial times to the present.

HIS 360 Latin America to Independence Lec. 3./Credit 3.
Examination of Latin American history from Native American origins through independence. Particular attention is paid to preColumbian civilizations, Spanish and Portuguese colonization, and struggles for national independence.

HIS 361 Latin America Since Independence Lec. 3./Credit 3.
Examination of Latin American history from independence to the present. Particular attention will be paid to inter-American relations and the problems of Latin American nations in the modern world.

HIS 390 Seminar in Comparative History Lec. 3./Credit 3.
Examination of a single theme (e.g., trade, revolutions, nationalism) in world history from a comparative, cross-cultural perspective. Topic varies annually.

HIS 399 Historiography Lec. 3./Credit 3.
Introduction to historical interpretation. Topics include philosophies of history, divergent analyses of major themes and events in the past, and critical review of key historical works.

HIS 400 Cooperative Education Credits 3-9.
Provides for on-the-job internship with a government agency, a research organization or a museum, integrating academic knowledge with practical experience. Students must register for the S/U option. Prerequisite: Permission of the Department Chair. Either semester.

HIS 401 Independent Study Ind./Credit 3.
Individual guided readings in various periods of history according to student interest and ability.

HIS 410 American Foreign Policy Lec. 3./Credit 3.
History of U.S. foreign policy from 1890 to present.

HIS 416/516 American Ethnic History Lec. 3./Credit 3.
Examination of the origins and development of major ethnic groups from the colonial era to the present. Particular attention will be paid to processes of assimilation, patterns of cultural pluralism and ethnic persistence, models of ethnic leadership and resistance, and relations with the dominant culture.

HIS 420 History of African-American Politics Lec. 3./Credit 3.
Changing political concepts among African-Americans with emphasis on contemporary movement among American black people, including examination of leaders and programs of Black Revolution.

HIS 425 Senior Seminar Sem. 3./Credit 3.
The use of historical sources and supplemental material; methods of research; techniques of historical editing. Successful completion of a monograph from primary sources is part of the departmental exit exam. Prerequisite: HIS 203 and 399.

HIS 430 Colonial Africa Lec. 3./Credit 3.
Examination of the 19th century partition of the African continent, the development of different European colonial systems, and African responses, including Pan-Africanism. Various African independence movements will be compared.

HIS 431/531 Post Colonial Africa Lec. 3./Credit 3.
Traces major aspects of African life since independence. In addition to political, social, economic, and cultural issues, topics such as health and technology will be discussed. Current interpretations of African affairs and alternative policy recommendations will be assessed.

HIS 499 Topics in History Lec. 3./Credit 3.
Selected topics for study or research in seminal fields of history. Specific topic will be announced the semester before the course is to be offered. HIS 101, 201 and 301 include Virginia studies. Limited to juniors and seniors.

HIS - History Undergraduate/Graduate

HIS 507 The Indian Subcontinent Lec. 3./Credit 3.
Nature of traditional Indian society and religious thought, history of native and foreign rulers, and contemporary problems and achievements.

HIS 516 Multicultural Education and Ethnic Pluralism Lec. 3./Credit 3.
Examination of origin and experiences, cultural patterns of intergroup relations of members of major ethnic groups in the United States.

HNF (Human Nutrition and Food)

HNF 103 Nature of Food Lec. 2./Lab 1./Credit 3.
Study of the characteristics of foods; applied principles of selection, preparation, and evaluation of food products as a means to foster a professional attitude towards food preparation. Fall semester.

HNF 104 Nutritional Significance of Foods, Sem. II Lec. 3./Credit 3.
Introduction to basic nutritional needs, how these requirements can be met throughout the life cycle, and consideration of environmental and social influences on nutritional status. Spring semester.

HNF 203 Nutrition and Dietetics Lec. 3./Credit 3.
Principles of nutrition in health and illness; practical application of these principles and consideration of individual differences in nutritional requirements. Fall/Spring.

HUM (Humanities)

HUM 201 Humanities Lec. 3./Hybrid/Online/Credit 3.
The first of a required two-semester interdisciplinary course that is organized around a theme, Enduring Human Values and Cultural Connections. The course introduces sophomore students to western and non-western philosophies and cultural legacies through the study of works of art, dance, drama, music, and literature from Antiquity through the Renaissance.

HUM 202 Humanities II Lec. 3.Hybrid/Online/Credit 3.
The second of a required two-semester interdisciplinary course that is organized around a theme, Enduring Human Values and Cultural Connections. The course introduces sophomore students to western and non-western philosophies and cultural legacies through the study of works of art, dance, drama, film, music, and literature from the Late Sixteenth Century through the Twentieth-first Century.

HSC (Health Sciences)

HSC 105 Introduction to the Health Profession Lec 2./Credit 2.
Emphasis is on teaching-learning principles, evaluation of learning needs related to health, planning of learning activities, development of teaching materials, and evaluation of learning outcomes. Open to all majors.

HSC 202 Nutrition and Wellness Lec 2./Credit 2.
Principles of nutrition in health and wellness; practical application of these principles and consideration of individual differences in health promotion, disease prevention and healthy lifestyles. Prerequisite: None. Open to all majors

HSC 203 Health Care in the US Lec. 2./Credit 2.
Introduces and describes healthcare delivery and resources in the United States. Content focuses on organization management, planning, evaluation, quality, and the impact of health policy. Examines services provided after hospitalization and the impact these services have on the continuum of care in managing risk in a healthcare reform environment.

HSC 217 Health and Community Assessment Lec 2./Credit 2.
Study of primary health care concepts as they relate to the biological, psychological, and sociocultural assessment of individuals, families, groups and communities in a multicultural society. Emphasis is placed on techniques of data collection through client and community needs assessments, resources, and capacity for health education/promotion.

HSC 221 Medical Terminology for Health Professions Lec 2./Credit 2.
A comprehensive learning experience which is self-paced and designed to assist students in healthcare professions, achieve mastery level in the use of medical terminology. Students will use the scavenger hunt approach to find answers to questions in the workbook as well as gain experiences in computerized instruction and testing. Prerequisite: One semester of Anatomy or Physiology. Open to all majors.

HSC 222 Intro to Healthcare Law Lec. 3./Credit 3.
This course will explore the various legal issues that affect the health-care provider today. Emphasis on ethical dilemmas, confidential record management, living wills, power-of-attorney, organ donation and how to avoid litigation in the workplace will be discussed. Actual malpractice health-care cases and experts in the legal profession will be utilized.

HSC 224 Cultural Assessment for Health Professionals Lec 3./Credit 3.
This course examines the role that culture plays in health-care practices, beliefs, and needs. The course is designed for health care professionals who wish to nourish awareness of, and sensitivity for, the cultural needs of clients and their families. Emphasis will be on cultural diversity in society and teach awareness related to worldviews and beliefs about diversity issues. Explores the crucial role that culture plays in the healthcare of a client and the need to deliver services in a culturally competent manner. Elective. Open to all majors

HSC 300 Healthcare Research Methods Lec 3./Credit 3.
Course focuses on the use and interpretation of health and healthcare related research. Students review approaches to health research methods, and develop research proposals for its impact on health. Prerequisite: PSY 346 or MAT 205

HSC 307 Health Promotion Lec 3./Credit 3.
This course explores health promotion for the individual and community. Students will explore community health concepts of epidemiology, levels of prevention, and risk assessment for health promoting activities. Students will analyze their own personal health promotion needs and the needs of a selected community. Utilize Healthy People goals to develop health promotion activities for community health problems based on a needs assessment. Students will develop, track and analyze an individual health promotion plan for themselves and recognize health education as an important foundation for population-based health care.

HSC 313 Billing and Coding Lec 3/Credit 3.
This course prepares the student to conduct proper medical coding and billing for accurate reimbursement of medical services rendered within medical settings.

HSC 318 Population/Community Health Lec. 3./Credit 3.
Introduction to the field of public/community health. A comprehensive introduction to epidemiology, and tools to improve the decision making process of health services management. Provides a population-based approach that emphasizes the socio-cultural factors associated with the distribution and etiology of health, disease, and chronic care management of populations and communities. For majors only.

HSC 319 Post-Acute Care Lec. 3./Credit 3.
This course examines services provided after hospitalization by skilled nursing facilities, inpatient rehabilitation facilities, nursing homes, home health care and long term care hospitals. This course focuses on the coordination of post-acute care, creating an understanding of how this care fits into the continuum of care in managing risk in a healthcare reform environment.

HSC 320 Scientific Writing for Health Professions Lec 3./Credit 3.
Specifically designed to enhance skills in critical thinking and appraisal of information needed in the communication of scientific data. Emphasis will be on the transdisciplinary use of technologies and informatics in healthcare environments. Elective Open to all majors.

HSC 321 Teaching for Health Professionals Lec 3./Credit 3.
Emphasis is on teaching-learning principles, evaluation of learning needs related to health, planning of learning activities, development of teaching materials, and evaluation of learning outcomes. Elective Open to all majors.

HSC 323 Multidisciplinary Approaches to Healthcare Ethics Lec. 3./Credit 3.
This multidisciplinary course examines the shared ethical decisions for practices of healthcare professionals. Code of ethics will be examined and discussed in relation to ethical theory and the legal and ethical requirements for professional practice. Explores and analyzes contemporary health care ethical dilemmas. Elective. Open to all majors

HSC 325 Healthcare Economics and Finance Lec. 3./Credit 3.
This course explores the economic influences and underpinnings of the healthcare delivery system. An exploration of the importance of economics in health care decisions, related to both demand and supply-side factors, and how public policy influences the economy of healthcare. An examination of the current system of financing health care and influencing factors. This course explores and analyzes budgetary concepts, financial management, cost accounting and guides students through the basic financial principles used by managers in health care organizations. Prerequisites: ACC 203 or MBA 201

HSC 330 Behavioral Health Lec 3./Credit 3.
This course explores the physiology of the mind, and the difference between normal and abnormal behavior. Students will develop an awareness of factors that affect mental health through exploration of traditional and emerging treatment modalities and health promotion strategies. Apply knowledge of ethical and legal responsibilities, limitations and implications for actions. Explore health care resources for individuals with mental health issues.

HSC 340 Disaster Preparedness Lec. 3./Credit 3.
This course focuses on introducing the upper level nursing student to disaster preparedness and response as a member of the healthcare community. Emphasis will be placed on the team approach to participating in many aspects of a coordinated disaster plan and response. Elective. Open to all majors.

HSC 400 Major Health Issues of Aging Lec. 3./Credit 3.
Study of the normal physiological changes of aging. Explores major health problems of the older adult. Students will explore strategies that promote health and independence of non-institutionalized older adults.

HSC 401 Health Program Planning Lec 4./Credit 4.
This course presents methods to identify, develop, implement and evaluate the effectiveness of health education programs. The course incorporates knowledge and skills of research, epidemiology, proposal writing, budget planning, project management, and program evaluation. Prerequisites: HSC 300 Health Research Methods, HSC 318. For Majors only.

HSC 410 Policy and Politics in Healthcare Lec. 3./Credit 3.
Examines how healthcare policy is developed at the state and federal levels. Considers the influence of constituencies and politics which influence policy formation. Exploration of the systematic and analytical framework for developing health and healthcare policy. Compares existing policy and policy formation in other countries to the US.

HSC 411 Health Science Capstone Project Proposal Course Lec. 3./Credit 3.
This course will prepare the student to complete a major research paper topic that is relevant to the health professions, and approved by the Department Chairperson.

HSC 412 Health Science Capstone Project Course Lec. 2./Credit 2.
This course will prepare the student for development of the research paper for a professional poster presentation which captures the information reported in the student's Health Science Capstone Proposal Course. Prerequisite: 411 Health Science Capstone Proposal Course.

HSC 425 Health Administration Lec. 3/Credit 3.
This course will provide an overview of Healthcare Administration, its various pieces and parts, and their integration into the healthcare system. It is also an introduction to basic concepts which will allow for the development of critical skills used in a variety of managerial areas pertinent to the delivery of healthcare.

HSC 499 Health Science Internship Lab 12 hr./Credit 4.
Internship experiences may be completed in various health care work environments: public health departments, clinics, hospitals, provider offices, non-profit organizations, community or commercial settings both domestically and abroad.

INS (International Studies)

INS 220 Introduction to International Relations Lec. 3./Credit 3.
A study of the evolution of the relationships among nation-states including the environment in which they operate; impact of non-governmental actors; as well as social and economic factors influencing these relationships.

INS 302 History and Politics of the Caribbean Lec. 3./Credit 3.
A study of Caribbean society from the Amerindians to Independence, including the various forms of colonization and how the societies evolved from such.

INS 305 Africa and World Affairs Lec. 3./Credit 3.
This course is designed as a survey of political patterns, political processes and political ideologies in Africa. It discusses the legacy of colonial experience, process of modernization, the prospects of social stability for development, inter-African cooperation, pan-African organizations, foreign policy issues, and Africa's role in world affairs.

INS 310 Society and Culture in Latin America and the Caribbean Lec. 3./Credit 3.
Examination of the class and caste structures in Latin America and the Caribbean including patterns of dominance, methods of resistance, and cultural and artistic manifestations.

INS 320 Political Economy of African Development Lec. 3./Credit 3.
The course is designed as a survey of economic patterns of development, state, civil society and external interests, modernization and dependency theories of development, traditional social structure and values for progress, eradication of poverty, organizations for sustainable growth and development, and Africa's participation in world economy and world affairs.

INS 321 Topics in Latin America and the Caribbean Lec. 3./Credit 3.
A focus on specific aspects of Latin America and the Caribbean politics and society. Examples of topics are: Women in Latin America and the Caribbean; History of the Church in Latin America and Caribbean society; The Rise of the Labor Movement in the English Speaking Caribbean; Liberation Theology in Latin America and the Caribbean; and Populism as utilized by both the Conservatives and Liberals in Twentieth Century Latin America.

INS 402 U.S.-Latin American Relations Lec. 3./Credit 3.
This course focuses on United States relations with post independent Latin America. Emphasis is placed on governmental and non-governmental regional organizations/associations, and the impact of U.S. domestic politics on the region.

INS 435 International Studies Capstone Lec. 3./Credit 3.
This course is geared toward preparation for and production and defense of individual empirical research on topics of interest in the major. It incorporates theories, concepts, practices and experiential knowledge in international studies. Students must have completed successfully the other major requirements as prerequisites for this course.

INT (Music Performance Instruments)

INT 103-104, 203-204, 303-304, 403-404 B,P,S, W-Minor Performance Stu. 1./Credit 1.
Individualized instruction in a medium designed to develop basic musicianship through studies in technique development and the performance of representative literature. (B= Brasswinds, P=Percussion, S=Strings, or W=Woodwinds). Nonmajors must have departmental permission to enroll.
INT 107-108, 207-208, 307-308, 407-408

B, P, S, W,-Major Performance Class 1. Stu. 2./Credit 2-3.
A progressive sequence of advanced, individual, and class instruction in brass and woodwind instruments. (B=Brasswinds, P=Percussion, S=Strings, or W=Woodwinds)Emphasis on essential playing skills and performance of a wide range of musical styles. Class instruction on a related instrument in the category of major instrument designed to develop basic musicianship through studies in technique development and the performance of basic representative literature.

INT - Music Performance Instruments Undergraduate/Graduate

INT 507-508 B, P, S, W Major Performance (Brasswinds, Percussion, Strings, or Woodwinds) Performance Class 1. Stu. 1./Credit 2.
A continuation of major applied study beyond the public recital. Pre-requisite: ORC 408.

JAC (Journalism and Communications)

JAC 101 Media in a Multicultural Society Lec. 3./Credit 3.
This course surveys the mass media. Students are introduced to all forms of mass media, their economics, and the relationship between the media and society. Media ethics, First Amendment rights and the function of the press in society are also examined. The course prepares majors and non-majors to be informed consumers and producers of media content in a media saturated world. Required of all majors.

JAC 105 Grammar and AP Style Lab 3/Credit 3.
This course provides students with a fundamentally sound understanding of grammar usage and sentence structure, enabling them to write with clarity, sophistication and an appreciation for the guiding principles of media writing indicative of professionals in the field. This course will use the Electronic Grammar Usage Mechanics Proficiency Program (EGUMPP) modules, a web-based solution that uses a building-block approach to present and teach the lesson concepts. The lesson concepts will be applied through practical, interactive exercises that promote authentic learning and genuine understanding for teaching English grammar, usage, punctuation, and writing mechanics. Students also will receive instruction in using the Associated Press Stylebook, a newspaper industry standard guide for grammar, punctuation, principles and practices of reporting used by broadcasters, magazines, digital media companies and public relations firms. Required of all majors and minors.

JAC 110 Introduction to Media Writing Lab 3./Credit 3.
This course emphasizes proper grammatical structure and introduces writing styles and language skills needed by journalists and communications professionals. In this course, students will be introduced to the basic writing formats for all forms of mass communication, including journalism, broadcasting, public relations, advertising and online media. Students learn methods of gathering information, including research techniques and interviewing. They develop language usage and grammar skills and learn Associated Press style. In this course, emphasis is placed on critical thinking and students are introduced to the importance of writing on deadline. Required of all majors and minors.

JAC 200 Introduction to Visual Media Lab 3./Credit 3.
This course introduces students to the basics of visual design used by media professionals. In this course, students will explore the theories of visual communication, including principles of design, symbolism and color theory. The basics of photography, videography, web publishing, and online graphics also will be explored. The course allows majors to develop basic technical and software skills, which will be essential in upper level courses in all majors. Required of all majors. Prerequisite: JAC 105.

JAC 210 Reporting and Newswriting Across Platforms Lab 3./Credit 3.
This is the foundation writing course for all majors. It teaches research methods for gathering information and emphasizes critical thinking to analyze the comparative importance of the information. It builds strong skills in writing and language use for multiple media platforms. It gives students practice in reporting and writing in basic news story formats and styles that are applicable to other communications professions. It introduces students to the demands of quickly and accurately gathering information, analyzing it and writing on deadline. Required of all majors. Prerequisites: JAC 105 and JAC 110.

JAC 220 Principles of Public Relations Lec. 3./Credit 3.
This course introduces students to the basic concepts of public relations. It surveys principles, theories, strategies, techniques and practices of the public relations profession. Prerequisites: JAC 105 and JAC 110.

JAC 230 Principles of Advertising Lec. 3./Credit 3.
This course introduces students to the basic principles of advertising and its relationship to different forms of branded media and consumers. It includes theories, strategies, and elements of visual design, copywriting, sales and research. Social media applications also will be explored. Prerequisites: JAC 105 and JAC 11

JAC 260 Script Writing Lab 3./Credit 3.
This course introduces students to the conventions of writing for programming. Students learn the formats for writing commercials, public service announcements, promos, radio and television news, sitcoms, dramas and other broadcast formats. Students learn to read and write phonetic pronunciation guides as well as produce storyboards and analyze and mark scripts. Students learn to research and document scripts for spot announcements, news and long-format programming. Each student will receive training and experience in radio and television delivery and performance. Each student will produce scripts of sufficient quality for the portfolio. Prerequisites: JAC 105 and JAC 110.

JAC 265 Introduction to Radio/Television Production Lab 3./Credit 3.
This course orients students to the skills, procedures and jargon of electronic media production techniques. Students learn to operate audio and video recording, editing and production equipment used for radio, television and the web. Basics such as on-camera and on-microphone performance are introduced. Emphasis is placed on practical experience to meet competence needed in coursework, internship and employment in the media industry. Each student will complete an audio and video project of sufficient quality for the portfolio. Prerequisites: JAC 105 and JAC 110.

JAC 301 Web Design and Production Lab 3./Credit 3.
This course introduces students to producing content for the web. It teaches the fundamentals of website development, hypertext markup language and web design, including the use of interactive text, graphics, video and audio for the web. It also stresses sound journalistic news values and judgment for reporting responsibly and ethically using the web, mobile platforms and social media. Prerequisites: JAC 105 and JAC 110.

JAC 305 Visual Communication Lab 3./Credit 3.
This course examines basic theories and skills in visual communication for multimedia platforms. It includes the selection and editing of photographs; the use of maps, charts, graphs, artwork, infographics, typography; and other graphic design elements. It introduces students to current graphic design programs. Prerequisites: JAC 105 and JAC 110.

JAC 307 Digital Photography and Imaging Lab 3./Credit 3.
This course introduces students to the basic technology of digital photography and the theories and skills of photojournalism. It will include photo selection, editing and layout. It also will include the application of photographic images for multiple digital platforms. Prerequisites: JAC 105 and JAC 110.

JAC 310 Advanced Reporting and Newswriting Across Platforms Lab 3./Credit 3.
This course builds on and strengthens reporting and newswriting skills gained in JAC 210. It teaches basic beat and public affairs reporting and how to cover police, fire, city council and courts. It introduces students to "issues" beats focused on such topics as health, religion, business, multicultural and minority affairs, urban affairs and technology. It requires students to choose a beat, cultivate sources, develop story ideas and write news and feature stories from the beat. Campus reporting and in-depth final reporting projects are published online. Prerequisites: JAC 105 and JAC 110.

JAC 320 PR, Campaigns & Media Brand Marketing Lab 3./Credit 3.
The course will aid students in understanding and applying the basic principles of building and deploying a public relations campaign/building a brand for purposes of media marketing. Upon completion of the course, students will know how to conceptualize and create a campaign that impacts prospects. Prerequisites: JAC 105 and JAC 110.

JAC 330 Social and Multimedia Analytics Lab 3./Credit 3.
Examining the ways social media is used in professional settings for marketing, brand awareness and prospect outreach, this course will serve as an introduction into the use of analytics dashboards to understand how to craft engaging content that will serve strategic communication needs. Prerequisites: JAC 105 and JAC 110.

JAC 340 Broadcast Newswriting Lab 3./Credit 3.
This course refines writing skills for broadcast journalism platforms. Students' reporting and writing skills are strengthened by working basic beats such as city government, courts, and police. Each student will write and produce stories for radio and television broadcasts, as well as online presentations. Both news and feature stories are produced for the student's portfolio. Assignments include anchoring radio newscasts and producing television news stories. Documentary style reporting is also explored. Prerequisites: JAC 105 and JAC 110.

JAC 403 Media Entrepreneurship Lab 3./Credit 3.
This survey course introduces students to the fundamentals of entrepreneurial concepts and skills through case studies and the development of a media venture. Students will work to develop a comprehensive strategic business plan for the implementation of innovative digital media products and services. Prerequisites: JAC 105 and JAC 110.

JAC 404 Media Ethics Lec. 3./Credit 3.
Students investigate the process of making ethical choices as producers and consumers of media content based on sound professional principles. Ethical dilemmas and case studies including social media will be examined. The ethical codes of professional groups such as the Society of Professional Journalists, the Radio Television Digital News Association, The Public Relations Society of America and the American Advertising Federation also will be explored. This course provides the tools necessary to identify and analyze ethical issues that modern-day media organizations face. The course prepares students to apply various decision-making strategies when they face these issues in the workplace. Prerequisites: JAC 105 and JAC 110.

JAC 405 Media Law Lec. 3./Credit 3.
This course examines the various laws that affect journalism and other communications professions. It includes the First Amendment, libel, copyright, privacy telecommunications regulations and obscenity laws. This course is designed to introduce students to legal concepts pertinent to the communications industries. It will investigate the dynamic nature of the First Amendment through the evaluation of precedents and legal proceedings. Prerequisites: JAC 105 and JAC 110.

JAC 406 Media Management Lec. 3./Credit 3.
This course teaches students how to improve their chances of successfully navigating a career in the media industry across all media platforms. Students get a comprehensive view of media management's role and critical relationships relevant to operation, strategies, regulatory and personnel challenges, opportunities, consequences and rewards. Students are taught critical relationship-building skills they can apply to further maximize their employment opportunities. Prerequisites: JAC 105 and JAC 110.

JAC 407 Pop Culture in Media Lec. 3./Credit 3.
Students will explore how to combine interest in popular culture and creative writing style to produce a daily entertainment blog and pop culture web series. In this hands-on class, students will learn all of the roles and responsibilities required to produce and promote the web-based show and blog, from the managing editor, booker, photographer, field producer, reporter, publicist, social media manager, script and copy editor to the researcher who confirms facts and statements from publicists. The class will require research beyond the time spent in the classroom, which translates into staying up-to-date on current issues by gathering cross platform information and distinguishing fact from fiction and rumor. Prerequisites: JAC 105, and JAC 110.

JAC 408 Sports Journalism Lab 3./Credit 3.
This course is an introduction to the philosophy, craft and practices of covering athletics in the era of digital communication. Students will be exposed to the basic process of covering sports, crafting readable print, video and audio content (long and short form) for print, blogs and social media. Students also will learn the basics of creating an industry-standard podcast that will inform, entertain and engage audiences. Prerequisites: JAC 105 and JAC 110.

JAC 410 Content Editing Lab 3./Credit 3.
This course teaches the skills and theoretical concepts demanded by 21st century digital news coverage and technology in journalism. It includes copy editing, page layout and design and techniques for coaching and working with writers to develop story ideas. It stresses an editor's responsibility to assure balanced, thorough and accurate coverage of a global society. Prerequisites: JAC 105 and JAC 110.

JAC 412 Feature and Editorial Storytelling Lab 3./Credit 3.
Students in this course will learn techniques in reporting and writing feature stories. Students are required to produce and publish substantial magazine-length features for multimedia platforms, including online publications and blogs. Prerequisites: JAC 105 and JAC 110.

JAC 414 Business Journalism Lab 3./Credit 3.
This course teaches the basics of business beat reporting. It requires students to cultivate sources, develop story ideas, dig deeper and write stories with an emphasis on following the money. Reporting is eligible to be published online. Prerequisites: JAC 105 and JAC 110.

JAC 415 Photojournalism Lab 3./Credit 3.
Students will learn visual storytelling concepts and techniques for the digital age. Writing appropriate cutlines, examining issues as well as composition, lighting and ethics will be discussed. Students will utilize contemporary photographic equipment and software to produce images for multiple platforms. Prerequisites: JAC 105 and JAC 110.

JAC 420 Media Research Lec. 3./Credit 3.
This survey course will examine research methods commonly used by media professionals to gather quantitative and qualitative data for planning, programming and evaluating effective communication programs and strategies. Students will learn to use techniques such as background searches, data collection methods, database information input, retrieval and analyses, writing style guides and copy-testing. Prerequisites: JAC 105 and JAC 110.

JAC 425 Crisis Communication Lec. 3./Credit 3.
This course examines case studies of organizations' communication needs and dilemmas in emergencies and crises. Students will look at the role of the crisis communication manager in preventing and managing such problems as scandals, natural disasters and bad public image. Prerequisites: JAC 105 and JAC 110.

JAC 427 Event Management Lab 3./Credit 3.
This course emphasizes the planning, coordination and execution of special events by public relations professionals, such as conferences, award programs, celebrations and dedications. Students will plan and execute special events appropriate to profit and nonprofit organizations. Prerequisites: JAC 105 and JAC 110.

JAC 430 Advanced Media Analytics Lab 3./Credit 3.
The course exposes students to the use of analytics in media for the purpose of understanding how users engage with the content that has been created, and how to encourage further engagement with newly created content. The media examined in this class includes current mass media—video, email, etc.—and emerging technologies as they enter popular use. Prerequisites: JAC 105 and JAC 110.

JAC 440 News Production Lab 4./Credit 4.
This course provides students with practical training in news production. It includes writing, reporting, photographing, editing of stories and electronic newsgathering, electronic field production and studio production. Training is emphasized in all aspects of the studio equipment and control room. Students work as a team with various roles such as director, audio operator, tape editor, character generator operator, teleprompter operator and camera operator. Any work produced by the student will be included in the portfolio. Mobile platforms may be addressed. Prerequisites: JAC 105 and JAC 110.

JAC 445 Animation and Motion Graphics Lab 3./Credit 3.
This course teaches students the skill of creating graphics and adding movement and sound to these graphics. The content created in this class helps students understand the basic skills of creating images that move and reach audiences for the purpose of entertainment, information, storytelling and engagement. Prerequisites: JAC 105 and JAC 110.

JAC 450 Special Topics in Journalism and Communications Lec. 3./Credit 1-3.
This is a special course organized by a faculty member to discuss current issues or contemporary topics in journalism or communications. Topics will vary. Prerequisites: JAC 105 and JAC 110.

JAC 451 Specialized Skills in Journalism and Communications Lab 3./Credit 3.
This is a special course organized by a faculty member to help students develop a specific skill in journalism or communications. Prerequisites: JAC 105, and JAC 110.

JAC 452 International Journalism and Communications Lec. 3./Credit 3.
This course is a cross-cultural study of journalism and communications in the "global village." It compares media practices in democracies and state-run media. It will look at how the news media and communication professionals are affected by the flow of uncensored technology and media information across national borders. It will look at the effects of the "information world-order" on cultures, politics and economics. Prerequisites: JAC 105 and JAC 110.

JAC 453 Media Innovation, Graphics and Virtual Reality Lab 3./Credit 3.

This course introduces students to the basics of visual design used by media professionals. In this course, students will explore the theories of visual communication, including principles of design, symbolism and color theory. The basics of photography, videography and page layout and design also will be explored. The course allows majors to develop basic technical skills, such as working with augmented and virtual reality, which will be essential in upper level courses in all majors and minors. Prerequisites: JAC 105 and JAC 110.

JAC 454 Civil Rights Era and the Media Lec. 3./Credit 3.

This course will look at the relationship between the press and the civil rights movement of the 1950s and 1960s, as well as any current issues. It will examine the coverage of key moments and people. It will look at the differences between national and local coverage of these events and people and at the role of African-American journalists in covering the civil rights struggle. Prerequisites: JAC 105 and JAC 110.

JAC 460 Independent Study in Journalism and Communications Ind./Credit 1-3.

This course is designed to meet the needs of the journalism and communications student who wishes to conduct independent research, develop a special academic project or fulfill other department requirements outside of the usual class structure. Students cannot apply more than six credit hours in independent study toward graduation requirements. Prerequisites: JAC 105 and JAC 110.

JAC 465 Internship in Journalism and Communications Credit 3.

This is a part-time placement in a professional setting for students to gain practical experience in their major. Students cannot apply more than six credit hours in Internship and Practicum (JAC 467) toward graduation. Prerequisites: JAC 105 and JAC 110.

JAC 467 Practicum in Journalism and Communications Credit 1-3.

This course is designed to allow students to get hands-on experience in some aspect of journalism or communication under the close supervision of a member of the school's faculty. Students cannot apply more than six credit hours in Internship (JAC 465) and Practicum toward graduation. Prerequisites: JAC 105, JAC 110 and POI to oversee the experience.

JAC 495 Senior Capstone: Journalism Lab 3./Credit 3.

THIS COURSE IS FOR JOURNALISM MAJORS ONLY. This course is the capstone experience. It will include a multimedia project appropriate to the journalism profession, such as an in-depth print reporting project, or a video or audio story that meets the standard of professionals working in the field. Students will submit a professional-quality portfolio of their work as a major component for career preparation. Students will be expected to think critically about and defend the contents of their portfolio in terms of professional standards and ethics. Prerequisites: JAC 105, JAC 110 and senior status.

JAC 495 Senior Capstone: Strategic Communication Lab 3./Credit 3

THIS COURSE IS FOR STRATEGIC COMMUNICATION MAJORS ONLY. This course is the capstone experience. It will include a public relations, marketing or advertising project, such as creating a PR campaign, working with a client to build an advertising campaign, or building an entrepreneurial brand, that meets the standard of professionals working in the field. Students will submit a professional-quality portfolio of their work as a major component for career preparation. Students will be expected to think critically about and defend the contents of their portfolio in terms of professional standards and ethics. Prerequisites: JAC 105, JAC 110 and senior status.

JAP (Japanese)

JAP 101 Elementary Japanese I Lec. 3./Lab l./Credit 3.

Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

JAP 102 Elementary Japanese II Lec. 3./Lab l./Credit 3.

Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: JAP 101 or the equivalent.

JAP 201 Intermediate Japanese I Lec. 3./Lab l./Credit 3.

The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: JAP 102 or the equivalent.

JAP 202 Intermediate Japanese II Lec. 3./Lab l./Credit 3.

The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: JAP 201 or the equivalent.

JAP 301-302 Intermediate Japanese Conversation I-I Lec. 3./Credit 3.

This course will provide extensive practice for conversation, reading and writing systems: Katakana, Hiragana and Kanji. Emphasis on developing communicative skills.

JAP 303-304 Advanced Japanese Reading I-II Lec. 3./Credit 3.

The course introduces students to the reading of authentic materials (newspapers, periodicals, extracts of literary texts, media information), and to elements of discussion. Emphasis continues to be on the development of communicative skills.

JAP 305-306 Advanced Japanese Conversation I-II Lec. 3./Credit 3.

The course focuses on the development of sophisticated practice of conversation. Students will acquire the necessary terminology to discuss various cultural aspects: society, history, politics, economy and art.

JAP 320-321 Topics in Japanese Literature/Culture I-II Lec. 3./Credit 3.

This course exposes students to important issues through the study of the works of important writers through the twentieth century.

JAP 440 Experiential Learning Lec. 3./Credit 3.
Can include study abroad, research abroad, domestic or international internships.

JAZ (Jazz)

JAZ 101 Jazz Band Lab 1./Credit 1.
Participation in Hampton University Jazz Ensemble. One hour credit limit per semester. Performance auditions are used as a means of placement.

LAP (Leadership Application-Business Administration)

LAP 101 Leadership Application Program
Lec. 1./Credit 1.
Introduction to leadership application basic non-technical skills. Development in communications and followership.

LAP 214-224 Leadership Application Research
Lec. 2./Credit 2.
Two part sequence that engages students in structured activity with corporate partners to develop organizing responsibility, an action orientation and accountability. Extensive corporate research, presentation and writing component. Prerequisite: LAP 101.

LAP 314-324 Leadership Application Planning
Lec. 2./Credit 2.
Students begin the process of converting context specific activities into planning and the subsequent implementation of integration of structured skill enrichment activities for others. Internal and external case and essay competition requirements. Students begin the process of delegation and negotiation of activities. Expected behavioral outcomes include resourcefulness for developing and using organizational and supervisory skills. Prerequisite: LAP 224.

LAP 515 Leadership Application Management
Lec. 2./Credit 2.
Structured activities and responsibilities designed to develop leadership qualities and skills necessary to achieve institutional objectives and the creation of career based opportunities for others. Prerequisite: LAP. 324.

LAP - Leadership Application-Business Administration Undergraduate/Graduate

LAP 525 Graduate Seminar Sem. 1./Credit 1.

LAP 615 Leadership Application Seminar
Sem. 1./Credit 1.
Continued development of leadership skill development and institutional opportunity development. Extensive corporate research, consultation, presentation and writing component. Prerequisite: Graduate Standing; LAP 515.

LEA (Leadership-William R. Harvey Leadership Institute)

LEA 201 Foundations of Leadership Studies
Sem. 2./Credit 2.
Introduction to the history and theory of leadership. Survey of leadership competencies through analysis of leader biographies. Leadership 201 is a prerequisite to all other Leadership Institute courses.

LEA 202 Practices and Tools of Leadership
Sem. 2./Credit 2.
The focus is the development of the personal skills required to ethically follow and lead. Critical thinking and problem-solving approaches as they relate to ethical leadership will be examined. The responsibilities and techniques of effective communication will be explored.

LEA 301 Ethics and Leadership Sem. 3./Credit 3.
Examines the historic development and intellectual foundations of ethics with focused attention on the moral implications and how they apply to contemporary leadership issues. Designed to engage the students in essential questions relating to the study of ethics and its relationship to the practice of leadership and ethical decision making.

LEA 302 Leadership in Organizations Sem. 2./Credit 2.
Exploration of group dynamics in order to gain an understanding of how groups function. Development of skills required to follow and lead in groups. Examines team-building, motivation and conflict resolution. Differentiation of leadership roles in public, private, profit and non-profit organizations.

LEA 303 Service Internship Credit 3.
400 hours of applied experience in a public service organization in which the student can meet course objectives. The internship will provide a firsthand opportunity to understand the responsibilities, challenges and rewards of committed community service. The student will collaborate with a faculty advisor during the internship.

LEA 304 Leadership in Context Sem. 2./Credit 2.
Study and analyze ethical leaders and leadership in private industry, politics, social reform movements and international affairs.

LEA 305 Special Topics Credit 1-3.
Topics developed by the student in collaboration with the Leadership Institute faculty that address particular issues in leadership.

LEA 400 Leadership and Policy Sem. 2./Credit 2.
Analysis of policy development and implementation. Students will explore the alternatives, responsibilities and the ethical and moral dimensions of policy making. The course will include practical exercises on: issue identification and analysis; developing courses of action; developing, implementing and evaluating policies.

LEA 401 Senior Leadership Seminar Sem. 2./Credit 2.
Senior capstone course focused on interactive study on current leadership issues in student's major area of academic study.

MAT (Mathematics)

MAT 100 Elementary Algebra Lec. 3./Credit 3.
For students whose background and placement indicate a need for basic work. This course does not carry credit toward any degree at the University. Concepts to be covered include arithmetic review, linear equations and inequalities, polynomials, rational expressions and graphing. Entry level skills for MAT 109.

MAT 105 Intermediate Algebra Lec. 3./Credit 3.
This course is for students whose background and/or placement indicates a need for algebra. It may be taken as an elective course, but will not count towards the mathematical competency requirements. Concepts to be covered include linear equations and inequalities, polynomial and rational expressions, radicals, complex numbers, quadratics and graphing exponential and logarithmic functions. Entry level skills for MAT 117.

MAT 109 College Mathematics I Lec. 3./Credit 3.
Sets and simple logic. Solving linear, rational and quadratic equations, inequalities. Graphing linear equations and inequalities, quadratic equations. Exponential and logarithmic functions. Solving systems of equations. Linear programming. Prerequisite: MAT 100 or by placement.

MAT 110 College Mathematics II Lec. 3./Online/Credit 3.
Mathematics of finance such as interest, installment buying, mortgage. Measurement, geometry and the metric system. Elementary concepts of probability and statistics. Prerequisite: MAT 109 or by placement.

MAT 117 Precalculus Mathematics I Lec. 3./Credit 3.
Functions and their graphs. Polynomial and rational functions, exponential and logarithmic functions. Systems of linear and non-linear equations. Sequences and series. Prerequisite: MAT 105 or by placement.

MAT 118 Precalculus Mathematics II Lec. 3./Credit 3.
Trigonometric functions and their inverses. Analytic trigonometry. Applications of trigonometry. Fundamentals of analytic geometry. Complex numbers. Polar coordinates. Prerequisite: MAT 117 or by placement.

MAT 119 Mathematics for Elementary Education Lec. 3./Lab 1./Credit 3.
Mathematics topics central to a comprehensive elementary school curriculum covered sequentially to parallel their development in the school curriculum. A laboratory will provide an understanding of the use of manipulatives in teaching mathematics.

MAT 120 Elementary School Mathematics Lec. 3./Credit 3.
Mathematics topics recommended by The National Council of Teachers of Mathematics (NCTM) Standards for the elementary school curriculum and the contents identified in the Virginia Foundation Blocks for Early Learning and the Virginia Standards of Learning to provide a foundation for teaching mathematics in grades preK-6. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools. Prerequisite: MAT 110/117/118.

MAT 123 Introduction to Research Topics in Mathematics Sem./Pjt./Credit 1-3.
Designed for freshman level undergraduates. Emphasis will be placed upon introduction to areas of mathematics research, regular attendance at appropriate seminars, techniques of literature searches, and background study. This course may be taken twice. Prerequisite: Consent of the department chairperson.

MAT 130 Calculus Lec. 3./Credit 3.
A one-semester course for students with an option or a requirement for a course in calculus. Differentiation and integration of algebraic, exponential, and logarithmic functions. Applications from business, life, and social sciences. Prerequisite: MAT 117, or by placement.

MAT 151 Calculus I Lec. 4./Prb. 1./Credit 4.
Introduction to limits, continuity, and derivatives. Rules of differentiation. Differentiation of algebraic, trigonometric, inverse trigonometric, exponential, and logarithmic functions. Differentials and tangent lines. Higher order derivatives. Implicit differentiation. Applications of derivatives. Definite integral. Fundamental theorem of calculus. Integration of elementary functions. The calculus of the transcendental functions. Prerequisite: MAT 118.

MAT 152 Calculus II Lec. 4./Prb. l./Credit 4.
Techniques of integration. Applications of the definite integral. Indeterminate limits. Improper integrals. Infinite series. Conic sections and curves in three dimensions. Prerequisite: MAT 151.

MAT 160 Elementary Introduction to Nuclear Fusion Lec. 3./Credit 3.
Introduction to terminology of nuclear fusion. Definitions of plasma, temperature, Debye shielding, plasma parameters. Elementary concepts of: plasma criterion, mass energy relation, fusion reactions, magnetic fusion, inertial fusion, magnetic fusion devices, tokamak geometry, single particle motions in plasmas, plasmas as fluids, waves in plasmas, equilibrium and stability. Prerequisite: By consent of the instructor.

MAT 205 Introduction to Statistics Lec. 3./Credit 3.
Descriptive statistics for ungrouped and grouped data. Concepts of probability. Random variables. Binomial and normal distributions. Sampling distributions. Correlation and regression. Hypothesis testing and estimation. Prerequisite: MAT 109 or above.

MAT 206 Mathematics Foundations Lec. 3./Credit 3.
Logic. Algebra of sets. Nature of mathematical proofs. Mathematical induction. Recursion. Elementary number theory. Relations and functions. Algebraic structure. Prerequisite: MAT 151 or above.

MAT 208 Elementary Linear Algebra Lec. 3./Credit 3.
Basic concepts of linear algebra. Linear systems. Matrix algebra. Determinants. Vector spaces. Linear independence. Basis and dimension. Inner product spaces. Linear transformations. Eigenvalues and eigenvectors. Prerequisite: MAT 206 or CSC 215.

MAT 223 Directed Research Credit 1-5.
Introduction to research problems in special areas of mathematics. Prerequisite: Consent of department chairperson.

MAT 224 Introduction to Mathematical & Statistical Software Packages I Lec. 1./Lab. 2./Credit 2.
Introduction and implementation of software packages for the processing and visualization of mathematical and statistical data. Generating graphical display of computational data. Prerequisite: MAT 152.

MAT 251 Calculus III Lec. 4./Prb. 1./Credit 4.
Conic sections and curves in three dimensions. Vector operations. The calculus of the vector-valued functions. Differentiation, integration, and application in the multi-variable calculus. Vector analysis. Prerequisite: MAT 152, with grade "C" or above for mathematics majors, or by placement.

MAT 260 Differential Equations Lec. 3./Credit 3.
Solutions and initial value problems. First order differential equations. Linear second order equations. Applications of linear second order equations. Method of Laplace transforms. Series solution of linear differential equations. Prerequisite: MAT 152.

MAT 300 Cooperative Work-Study Experience Credit 3-12.
On-the-job training in government or industrial organizations utilizing mathematical analysis or computer science in their operations. Prerequisite: Approval of the department chairperson.

MAT 305 Probability and Statistics Lec. 3./Credit 3.
Random variables. Probability and density functions. Special distributions. Point and interval estimation. Tests of statistical hypotheses. Regression and analysis of variance. Prerequisite: MAT 152.

MAT 310 Modern Geometry Lec. 3./Credit 3.
Deductive reasoning and nature of proof. Basic concepts and postulates. Incidence geometry. Congruence of segments and angles. Triangles. Circles. Proportion and similarity. Polygon areas and volumes. Introduction to non-Euclidean geometries. Prerequisite: MAT 206.

MAT 311 Probability Lec. 3./Credit 3.
Basic concepts of probability. Discrete random variables and their probability distributions. Continuous random variables and their probability distributions. Multivariate probability distributions. Prerequisites: MAT 206 and MAT 251.

MAT 312 Mathematical Statistics Lec. 3./Credit 3.
Sampling distributions and the Central Limit theorem. Properties of point estimates and methods of estimation. Confidence intervals. Hypothesis testing. Linear models and estimation by least squares. Analysis of variance. Prerequisite: MAT 311.

MAT 315 Discrete Structures Lec. 3./Credit 3.
Algebraic structures applicable to computer sciences. Semigroups. Graphs. Lattices. Boolean algebras. Combinatorics. Prerequisites: MAT 152, 206 and 208.

MAT 320 Modern Algebra I Lec. 3./Credit 3.
Introduction to groups, rings, fields, and related topics. Emphasis on development of careful mathematical reasoning. Prerequisite: MAT 206 and 208.

MAT 321 Modern Algebra II Lec. 3./Credit 3.
The symmetric group. Vector spaces over arbitrary fields. Topics selected by the instructor. Prerequisite: MAT 320.

MAT 323 Directed Research Credit 1-5.
Research problems in special areas of mathematics. Prerequisite: Consent of department chairperson.

MAT 324 Introduction to Mathematical & Statistical Software Packages II Lec. 1./Lab. 2./Credit 2.
An extension of MAT 224 course to develop application programs performing a variety of computational analyses. Prerequisite: MAT 224.

MAT 330 Complex Variables Lec. 3./Credit 3.
Complex numbers and functions. Analytic functions. Complex integration. Laurant and Taylor series. Residues. Conformal mappings and applications. Prerequisite: MAT 251.

MAT 340 History and Philosophy of Mathematics Lec. 3. /Credit 3.
Historical and philosophical aspects of mathematics and its interplay with other disciplines from antiquity to modern times. Emphasis on the development of selected mathematical concepts and problems in their historical settings. Prerequisite: MAT 206.

MAT 360 Introduction to Nuclear Fusion Lec. 3./Credit 3.
Concept of plasma, fusion, magnetic fusion, magnetic fusion devices, tokamaks, single particle motions, plasmas as fluids, waves in plasmas, diffusion and resistivity, equilibrium and stability, kinetic theory. Prerequisites: MAT 152 and PHY 204.

MAT 403 Numerical Analysis I Lec. 3./Credit 3.
Finite precision arithmetic. Interpolation. Spline approximation. Numerical integration. Numerical solution of linear and non-linear systems of equations. Optimization of finite dimensional spaces. Prerequisites: MAT 208, MAT 251, and CSC 151.

MAT 404 Numerical Analysis II Lec. 3./Credit 3.
Numerical methods for initial value problems of ordinary differential equations. Numerical solution of boundary value problems or ordinary differential equations. Stability analysis. Numerical eigenvalue problems. Approximation theory. Methods for partial differential equations. Prerequisites: MAT 260 and 403.

MAT 411 Differential Geometry Lec. 3./Credit 3.
Classical and modern treatment. Curves, involutes, evolutes, surfaces, and transformation groups. Space curves, tensors and lie algebras. Prerequisites: MAT 251 and 320.

MAT 416 Foundations of Analysis I Lec. 3./Credit 3.
Sequences. Series and convergence. Topology of the real and metric spaces. Limits and continuity. Differentiability and integrability of functions. Sequences and series of functions. Prerequisite: MAT 251 and 206.

MAT 417 Foundations of Analysis II Lec. 3./Credit 3.
Differentiability of functions. Integrability of functions. Uniform convergence of series and integrals. Topology of metric spaces. Prerequisite: MAT 416.

MAT 420 Mathematics for Elementary School Teachers I Lec. 3./Credit 3.
Basic contemporary course in elementary analysis for teachers of K-8 school mathematics. Systematic development of the number systems of arithmetic: natural numbers, whole numbers, integers, rational numbers, and real numbers. Special attention is given to the algorithmic processes of the fundamental operations. Metric system. Topics from geometry. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools. Prerequisite: Approval of department chairperson.

MAT 421 Mathematics for Elementary School Teachers II Lec. 3./Credit 3.
Elementary topics from number theory, probability, data analysis, appropriate techniques of teaching mathematics in elementary schools. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools. Prerequisite: MAT 520.

MAT 422 Mathematics for Exceptional Child within Regular School Program (A/S) Lec. 3./Credit 3.
Current trends and techniques for individualizing mathematics in regular classroom K through grade 8 for the exceptional child, both gifted and those with minor learning disabilities and/or handicaps. Nonclinical "diagnostic prescriptive" approach using appropriate sequences of instruction. Emphasis on the classroom environmental approach. Content supplemented when required. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools. Prerequisite: Approval of department chairperson.

MAT 423 Special Projects Pjt./Credit 2-4.
Introduction to research problems in special areas of mathematics. Prerequisite: Advanced standing and consent of department chairperson.

MAT 424 Research Problems Ind./Credit 2-4.
Participation in research project in collaboration with faculty supervisor, or original independent research problem. Prerequisite: Advanced standing and consent of department chairperson.

MAT 425 Seminar I Sem. 1./Credit 1.
Topical discussion and study in the field of mathematics. Prerequisites: MAT 251, 260, 310, 320.

MAT 426 Seminar II Sem. 1./Credit 1.
Topical discussion and study in the field of mathematics. Prerequisites: MAT 251, 260, 310, 320.

MAT 427 Senior Thesis I Credit 2.
Develop a thesis in an area/subject in pure or applied mathematics under the supervision of a thesis advisor during their senior year. Prerequisites: Senior standing or approval of supervisor/chair.

MAT 428 Senior Thesis II Credit 2.
Complete the senior thesis developed in MAT 427 (Senior Thesis I course) under the supervision of a Thesis Advisor. An oral defense of the thesis is required. Prerequisite: MAT 427.

MAT 430 Advanced Ordinary Differential Equations Lec. 3./Credit 3.
Solution methods and basic theory of linear systems. Stability and asymptotic behavior of linear and non-linear systems. Boundary value problems and Green's function. Sturm-Liouville theory. Prerequisite: MAT 260.

MAT 431 Advanced Calculus Lec. 3./Credit 3.
A rigorous treatment of multivariable calculus including gradients, multiple integrals, line and surface integrals, Green's theorem, the divergence, and Stokes' theorem. Prerequisite: MAT 416.

MAT 435 Regression and Analysis of Variance
Lec. 3./Credit 3.
Theory of least squares. Simple linear and multiple regression. Analysis of variance. Application of these techniques to real data. Prerequisite: MAT 312.

MAT 436 Design and Analysis of Experiments
Lec. 3./Credit 3.
Experiments with a single factor. Randomized blocks. Latin squares and related designs. Incomplete block designs. Factorial experiments. Fractional replications. Nested designs. Multifactor experiments with randomization restrictions. Prerequisite: MAT 312.

MAT 437 Sampling Theory **Lec. 3./Credit 3.**
Sampling from finite populations: simple random sampling, stratified random sampling, and regression estimation. Aspects of systematic sampling, cluster sampling, and multistage sampling.
Prerequisite: MAT 312.

MAT 440 Operations Research **Lec. 3./Credit 3.**
Deterministic and stochastic models. Topics include mathematical programming, queuing theory, inventory theory and non-linear programming. Prerequisite: MAT 311.

MAT 445 Optimization **Lec. 3./Credit 3.**
Fundamental concepts. Block search techniques. Least squares problem. Newton's method. Eigenvalue problem. Gradient methods. Prerequisite: MAT 416.

MAT 450 Number Theory **Lec. 3./Credit 3.**
Properties of integers. Divisibility and primes. Congruences. Power residues and quadratic reciprocity. Diophantine equations. Prerequisite: MAT 320.

MAT - Mathematics Undergraduate/Graduate

MAT 501 Infinite Series **Lec. 3./Credit 3.**
Foundations of theory of infinite series of real and complex numbers. Convergence tests. Series of functions. Summation processes. Asymptotic series. Prerequisite: MAT 251.

MAT 502 Vector Analysis **Lec. 3./Credit 3.**
Vector algebra. Vector differentiation and integration. Gradient, divergence, and curl. General coordinates. Applications to geometry and physics. Prerequisites: MAT 208 and 251.

MAT 503 Matrix Algebra **Lec. 3./Credit 3.**
Algebra matrices. Determinants. Special Matrices. Solution of systems of linear equations. Eigenvectors and Eigenvalues. Linear programming and the simplex method.
Prerequisite: MAT 208.

MAT 504 Advanced Linear Algebra **Lec. 3./Credit 3.**
Linear transformations, isomorphisms, linear functionals, dual spaces, ideal theory in polynomial rings, eigenvalues and eigenvectors, diagonalizable transformations, Jordan canonical form, normal and unitary operators, bilinear forms. Prerequisite: MAT 320.

MAT 505 Introduction to Topology **Lec. 3./Credit 3.**
Metric spaces, point set topology, open and closed sets, closure, continuity, connectedness, compactness, separability properties, Cauchy sequences and completeness, product spaces. Prerequisite: MAT 416.

MAT 506 Numerical Analysis I **Lec. 3./Credit 3.**
Finite precision arithmetic, interpolation, spline approximation, numerical integration, numerical solution of linear and nonlinear systems of equations, optimization in finite dimensional spaces. Prerequisites: MAT 208, MAT 251.

MAT 507 Numerical Analysis II **Lec. 3./Credit 3.**
Numerical methods for initial value problems and boundary value problems of ODE's, stability analysis, numerical eigenvalue problems, approximation theory, numerical methods for PDE's. Prerequisite: MAT 506.

MAT 509 Introduction to Probability **Lec. 3./Credit 3.**
Probability of finite sample spaces; counting techniques. Random variables. Binomial distribution. Prerequisite: MAT 206.

MAT 510 Analytical and Projective Geometry
Lec. 3./Credit 3.
Proposition of incidence, point-set theory, homogeneous coordinates. Theorems of Desargue, Pascal, Brianchon, and Klein, and the Erlanger program. Projective, affine, and Euclidean theories of conics and quadrics including analysis of regulus and paraboloid. General theories of transformation. Prerequisite: MAT 251.

MAT 511 Advanced Ordinary Differential Equations
Lec. 3./Credit 3.
Nonlinear second order differential equations, phase space analysis, perturbation methods. Elliptic functions. Floquet theory.
Prerequisite: MAT 504.

MAT 512 Elements of Mathematical Modeling
Lec. 3./Credit 3.
Mathematical modeling of problems arising in different practical areas of everyday life, such as population dynamics, traffic flow, similarity analysis. Prerequisites: MAT 260.

MAT 513 Elements of Real Analysis **Lec. 3./Credit 3.**
Sequences and their limits, series, topology of the real line, metric spaces, limits and continuity, differentiability and integrability of functions, sequences and series of functions, and Riemann-Stieltjes integrals. Prerequisite : MAT 416.

MAT 514 Introduction to Modern Analysis
Lec. 3./Credit 3.
Metric spaces, normed linear spaces, linear operators, linear functional and dual spaces, strong and weak convergence, Introduction to integration theory, LP spaces, Hilbert spaces. Prerequisites: MAT 416, MAT 208.

MAT 515 Functions of a Complex Variable
Lec. 3./Credit 3.
Complex numbers, analytic functions, Cauchy-Riemann equations, Cauchy theorem, Cauchy integral formula and its applications, Liouville's theorem, Taylor and Laurent series, residues and poles, conformal mappings. Prerequisite: MAT 416.

MAT 520 Mathematics for Elementary School Teachers I Lec. 3./Credit 3.
Basic contemporary course in elementary analysis for teachers of K-8 school mathematics. Systematic development of the number systems of arithmetic: natural numbers, whole numbers, integers, rational numbers, and real numbers. Special attention is given to the algorithmic processes of the fundamental operations. Metric system. Topics from geometry. Prerequisite: Approval of department chairperson.

MAT 521 Mathematics for Elementary School Teachers II Lec. 3./Credit 3.
Elementary topics from number theory, probability, data analysis, appropriate techniques of teaching mathematics in elementary schools. Prerequisite: MAT 520.

MAT 522 Mathematics for Exceptional Child within Regular School Program (A/S) Lec. 3./Credit 3.
Current trends and techniques for individualizing mathematics in regular classroom K through grade 8 for the exceptional child, both gifted and those with minor learning disabilities and/or handicaps. Nonclinical "diagnostic prescriptive" approach using appropriate sequences of instruction. Emphasis on the classroom environmental approach. Content supplemented when required. Prerequisite: Approval of department chairperson.

MAT - Mathematics Graduate Only

MAT 605 Algebraic Structures Lec. 3./Credit 3.
Group theory, homomorphism theorems, Sylow theorems, elementary ring theory, field theory, field extensions.
Prerequisite: MAT 320.

MAT 606 Probability Theory Lec. 3./Credit 3.
Mathematical foundations of probability, probability spaces, random variables, distribution functions, sampling distributions expectation and conditional expectation, laws of large numbers. Prerequisite: MAT 513.

MAT 607 Mathematical Statistics Lec. 3./Credit 3.
Parametric point estimation, Bayes estimators, parametric interval estimation, theory of hypothesis testing, linear models, nonparametric statistics. Prerequisite: MAT 606.

MAT 608 Partial Differential Equations I Lec. 3./Credit 3.
Classification of PDE's, linear and quasi-linear wave equations, separation of variables, Sturm-Liouville problems, non-homogeneous equations, Green's functions for time independent problems, generalized Fourier series. Prerequisite: MAT 511.

MAT 609 Partial Differential Equations II Lec. 3./Credit 3.
Heat equation: the maximum principle and uniqueness theorem, initial and initial-boundary value problems in finite and infinite domains. Laplace's equation: maximum-minimum principle for harmonic functions, Dirichlet and Neumann problems in bounded and unbounded domains, Poisson integral formula, fundamental solution and Green's function, Neumann function. Hyperbolic equations: fundamental solutions, hyperbolic potential theory in one, two, and three dimensions. Variational methods: Hamilton's principle, Ritz-Galerkin method, generalized solutions for timedependent problem. Prerequisite: MAT 608.

MAT 611 Foundations of Geometry Lec. 3./Credit 3.
Axiomatic systems, basic concepts and postulates, finite geometries, congruence of segments, angles and triangles, parallel postulates and introduction to non Euclidean geometries. Prerequisites: MAT 206.

MAT 613 Applied Mathematics for Teachers Lec. 3./Credit 3.
Fundamentals of problem solving with emphasis on computer-based real-world problems, techniques using algebra, geometry, number theory and discrete mathematics will be discussed. Prerequisite: Approval of the department.

MAT 614 Methods of Applied Mathematics I Lec. 3./Credit 3.
Variational techniques, asymptotic and perturbation methods for solving linear and non-linear PDE's, singular perturbation theory, asymptotic expansion methods for solving equations with boundary layer type solutions, integral equations, similarity methods. Prerequisite or corequisite: MAT 608.

MAT 615 Methods of Applied Mathematics II Lec. 3./Credit 3.
Tensor algebra, eigenvalues and eigenvectors of symmetric tensors, calculus of tensor functions, Helmholtz representation theorem, application of tensors to continuum mechanics, asymptotic expansion of integrals, Laplace's method and Watson's lemma, method of stationary phase and steepest descent, WKB approximations, 1 and 2 turning-point problems, tunneling, higher order WKB approximations, theory and examples of multiple-scale analysis, Floquet theory, Mathieu equation and stability. Prerequisite: MAT 614.

MAT 616 Advanced Numerical Analysis Lec. 3./Credit 3.
Error analysis, solving nonlinear equations, solving systems of equations, interpolation, approximation theory, numerical differentiation and integration, numerical solutions of ODE's and boundary value problems, introduction to numerical solution of PDE's. Prerequisite: MAT 608.

MAT 618 Real Analysis Lec. 3./Credit 3.
Introduction to measure theory, integration, Fubini's theorem, dominated convergence theorems, Lp spaces, normed spaces, Hilbert spaces. Prerequisite: MAT 514.

MAT 619 Functional Analysis Lec. 3./Credit 3.
Normed linear spaces, complete spaces, Banach and Hilbert spaces, linear functionals and dual space, elements of operator theory, spectral representation of operators with applications. Prerequisite: MAT 618.

MAT 624 Applied Time Series Analysis Lec. 3./Credit 3.
Univariate time series, Box Jenkins methodology, ARIMA models, nonstationary models, forecasting, seasonal analysis and case studies. Prerequisite: MAT 607.

MAT 631 Advanced Fluid Dynamics I Lec. 3./Credit 3.
Conservation laws of mass, momentum and energy, exact and approximate solutions of Navier-Stokes equations, laminar boundary-layer theory, inviscid flows in two and three dimensions and irrotational flow theory. Prerequisite: MAT 608.

MAT 632 Advanced Fluid Dynamics II Lec. 3./Credit 3.
Thermodynamics and conservation equations in compressible flows, small perturbation theory, two dimensional subsonic and supersonic flows, transonic flow, shock wave interactions, holograph transformation, methods of characteristic, airfoil, slender bodies, thin-wing theory. Prerequisite: MAT 631.

MAT 633 Stochastic Processes I Lec. 3./Credit 3.
Definition and general properties of stochastic processes, classification of stochastic processes, second order stochastic processes and their autocorrelation functions, continuity in quadratic mean, integration in quadratic mean and path by path, processes with orthogonal increment, stationary processes and their spectral representation. Prerequisite: MAT 606.

MAT 634 Stochastic Processes II Lec. 3./Credit 3.
Spectral and thermal analysis of stationary processes, prediction and filtering for stationary processes, reproducing kernel Hilbert spaces, ARMA processes and their applications, mean square parameter estimations, brief study of nonstationary processes, random fields and multivariate stationary processes. Prerequisite: MAT 633.

MAT 635-636 Theory of Nuclear Fusion I, II
Lec. 3./Credit 3.
Plasma waves in magnetic fields, waves in bounded plasma, application of magnetohydrodynamics, pinch effects, magnetohydrodynamic waves, particle interactions in plasma, Boltzmann and Fokker-Planck equation, transport processes in plasma. Prerequisite: Approval of the department.

MAT 637-638 Methods of Mathematical Physics I, II
Lec. 3./Credit 3.
Matrices, complex variables, Fourier series and transforms, Laplace transforms, ODE's and PDE's, special functions and polynomials, Green's functions operators, orthogonal functions and expansions, boundary value problems. Prerequisite: Approval of the department.

MAT 639-640 Nonlinear Dynamics I, II Lec. 3./Credit 3.
First order systems, phase space analysis, eigenvalue analysis, Hamiltonian systems, generating functions, discrete maps, chaos, fractals, bifurcations and strange attractors. Prerequisite: Approval of the department.

MAT 681 Thesis Credit 4.
This course documents completion of the written Master's thesis and oral defense of that thesis.

MAT 695 Topics in Applied Mathematics Credit 1-9.
Covers some topics in applied mathematics based on the students' needs. Prerequisite: Approval of the department.

MAT 696 Topics in Pure Mathematics Credit 1-9.
Covers some topics in pure mathematics based on the students' needs. Prerequisite: Approval of the department.

MAT 697 Topics in Mathematics Education Credit 1-9.
Covers some topics in mathematics education based on the students' needs. Prerequisite: Approval of the department.

MAT 698 Research Problems Credit 3.
Participation in research projects either in collaboration with faculty supervisor or independent research problem. Prerequisite: Approval of the department.

MAT 699 Independent Study Credit 1-9.

MAT 700 Thesis Registration Credit 1.

MAT 702 Master's Comprehensive Examination Credit 1.
This credit does not count towards the degree. Graded S/U only.

MBA (Business Administration Program)

MBA 200 Business Statistics & Analysis Lec.3/Credit 3.
Business data analysis, presentation, interpretation and decision making. Descriptive and inferential statistical methods. Probability theory and statistical distribution, interval estimates, hypothesis testing, ANOVA and simple regression. Basic elements of business analytics: data visualization and reporting. Prerequisite: MAT 117 or higher.

MBA 201 Financial Accounting Lec. 3./Credit 3.
An introduction to fundamental accounting practices with an emphasis on service, merchandising, and manufacturing companies. The analysis of transactions with respect to the accounting cycle is applied in the preparation, analysis and interpretation of the three primary financial statements, writing requirements. Prerequisite: MAT 117 or higher.

MBA 202 Management Engineering I Lec. 3./Credit 3.
Prerequisite MBA 200; A study of techniques available for a systematic approach to the analysis of manufacturing systems. Course content includes the application of manual and computer based techniques to re-engineer manufacturing systems and evaluate system improvements.

MBA 203 Managerial Accounting Lec. 3./Credit 3.
Study of managerial cost-based decision practices with an emphasis on resource allocation within the corporation. Reviews the managerial aspect of planning, controlling, analyzing, and internal reporting as it affects the horizontal and vertical decision-making processes within manufacturing plants. Emphasizes managerial decisions involving the preparation and analysis of cost flows with organizations. Includes extensive writing components. Prerequisite: MBA 201.

MBA 211 Lower Division Internship Trn./Credit 1.
Prerequisite MBA 201; Permission of Chair, Dean and University Internship coordinator. Full time affiliations as paid intern with a School of Business Qualified corporation or firm.

MBA 300 Critical Analysis and Strategy Lec. 2./Credit 2.
The course develops the critical sequential thinking of students and provides exercises to enable students to solve problems in an unstructured environment. The course emphasizes strategy planning, risk taking and the implementation of ideas. The course relies heavily on the use of chess analysis in a competitive format to develop interactive decision making skills to explore the relationship between strategies and tactics.

MBA 301 Critical Thinking I & Strategy II Lec. 3./Credit 3.
The course is the second in a sequence to develop strategic thinking as an art of overcoming obstacles through the practice of devising strategies and actualizing plans. Intermediate chess analysis and advanced case studies are utilized as a basis for critical strategy decision making.

MBA 313 Financial Reporting I Lec. 3./Credit 3.
Application of GAAP to a critical thinking approach to financial accounting and reporting as a means of developing an understanding of the environment in which financial reporting decisions are made.

MBA 314 Management Engineering II Lec. 3./Credit 3.
Prerequisite: MBA 202 An introduction of the tools and techniques of modern engineering management using the framework of the project life cycle. Course content includes discussion of techniques for project evaluation, planning, scheduling and control including organizational implementation issues; contemporary engineering management techniques.

MBA 315 Business Assurance Lec. 3./Credit 3.
The study of the public accountancy attestation responsibility; a review of auditor standards, principles, procedures, reports and objectives. Interdisciplinary problem solving, strategy exercises, decision games, and other applied models.

MBA 323 Financial Reporting II Lec. 3./Credit 3.
Application of accounting, corporate finance, economics, and critical analysis to the reporting of business transactions. Includes abstract thinking and unstructured problem solving to present an integrated, cross-disciplinary view of financial reporting. Prerequisite: MBA 313.

MBA 402 Production/Operations Management Lec. 3./Credit 3.
Prerequisite MBA 200 and MBA 202 ; Familiarizes the student with production/operation phase of business activity. Emphasis is on developing the ability to apply analytical methods and modern technology to manufacturing and services organizations.

MBA - Business Administration Program Undergraduate/Graduate

MBA 500 World Business Cultures and Resources Lec. 3./Credit 3.
Development of an appreciation for cultural differences within the context of global business activities. A study of the world geography and economics that considers the distribution of the world's natural resources and the impact that distribution has on business. Interdisciplinary problem solving, strategy exercises, decision games and other applied models.

MBA 502 Critical Thinking, Strategy & Negotiations Lec. 3./Credit 3.
The course provides core concepts in the art of negotiation, which entails the development of strategies and tactics of distributive bargaining and integrative negotiation. The course develops skills that recognize situations that call for bargaining and how to analyze, plan and implement successful negotiations. Case study, simulation, role playing and advanced chess analysis and competition are utilized as the methodology for skill development essential for negotiation.

MBA 503 Financial Statement Analysis Lec. 3./Credit 3.
Presents an understanding of how financial statements provide information regarding an enterprise. An advanced study of methodology should help equip business-people to prepare, audit, or interpret financial information from the point of view of the primary users of financial statements; equity and credit analysts.

MBA 506 Investment Analysis & Portfolio Management Lec. 3./Credit 3.
The course is designed as an extensive survey of investments, including risk, returns, liquidity marketability and diversification. Expanded coverage of mutual funds, options and future markets.

MBA 511 Graduate Internship Trn./Credit 1.
Full-time affiliation as a graduate paid intern with a School of Business approved organization, or corporation. Prerequisite: Graduate standing, permission of a director and certification by the internship office.

MBA 513 Systems Analysis & Design Lec. 3./Credit 3.
Presents the core set of skills for system development projects. Explores the four phases of planning, analysis, design and implementation. Reviews the analysis procedures to gather requirements, model the business needs and to create a blueprint for system development. The course has extensive computer applications components.

MBA 514 Accounting in a Non-Profit Environment
Lec. 3./Credit 3.
The course provides an overview of accounting, auditing and financial reporting standards for governmental and not-for-profit (NFP) organizations. Includes discussion of governmental GAAP as well as the preparation and analysis of governmental and NFP financial statements.

MBA 515 Accounting Information Systems
Lec. 3./Credit 3.
The course objective is to provide students with a basic knowledge of computer-based information systems and their role in performing the accounting function in contemporary business organizations. This includes the measure and evaluation of the performance of information systems, an assessment of the quality of information procession and the evaluation of the accuracy of information input and output.

MBA 516 Advanced Planning & Control Lec. 3./Credit 3.
Explores theoretical and application issues as they relate to planning control and managerial accounting. Provides a conceptual framework to examine the nature of costs within the context of organizational theory. Includes the relevance of agency theory and other managerial research topics. During lecture and discussion time, students are encouraged to engage in class discussion.

MBA 555 Media, Technology and Communication
Lec. 3./Credit 3.
Examines the problems of creating, integrating and managing product and process innovation in a changing technological environment. The course addresses issues of creativity, new product development, management of research and development and productivity. Discusses the adoption process of innovation. Emphasis on an understanding of the media and its role in the introduction of innovation.

MBA 517 Global Issues in Accounting Lec. 3./Credit 3.
Presentation of relevant current issues in the area of global commerce that impact directly on accounting principles and practices. Instructional modalities include lecture/discussion as well as case analysis.

MBA 518 Seminar in Advanced Auditing Lec. 3./Credit 3.
Prerequisite: MBA 313 (or concurrent enrollment). A survey of advanced auditing technique methods and procedures; computer-based auditing methods and internal auditing concepts. Extensive research list and case study analysis.

MBA 551 Research and Analysis Lec. 3./Credit 3.
This course examines the practices and techniques of research applied in profit and nonprofit organizations. Specific components of the course include basic problem definitions, determining and analyzing information needs and the implementation of research experiments.

MBA 552 International Marketing Lec. 3./Credit 3.
Explores the international dimension of marketing management. Students gain conceptual and theoretical knowledge of marketing strategies, decisions and problems that arise in the global marketplace. The course provides the student with a comprehensive application of international theory in a real world situation utilizing the case method study.

MBA 553 Advanced Retail Consumer Behavior
Lec. 3./Credit 3.
Examines the role and significance of retailing institutions in the marketing of goods and services. Studies consumer behavior and the role of the consumer within the retail market. Explores the management of critical functions of retailing such as pricing, inventory, promotion and merchandising.

MBA 554 Advertising and Product Design Lec. 3./Credit 3.
Examines the nature and role of advertising in the development and design of products. Applies select creative promotion strategies, advertising themes and media selection to the implementation of advertising campaigns. Examines the role of advertising in the adoption of innovation. Examines the problems of creating, integrating and managing product and process innovation in a changing technological environment. The course addresses issues of creativity, new product development, management of research and development and productivity. Discusses the adoption process of innovation. Emphasis on an understanding of the media and its role in the introduction of innovation.

MBA 560 Economic Concepts (Micro and Macro)
Lec. 3./Credit 3.
Synthesis of the fundamental concepts of both micro and macroeconomic theory. The outcome for the graduate student is comparable to the first 6 semester hours of undergraduate economics.

MBA 571 Financial Institutions and Markets
Lec. 3./Credit 3.
Provides an overview of the U.S. and international financial systems, the role of the central bank and regulations in the financial markets and the responses of these markets to changes in the national and world economy. Surveys the role of money and capital markets in facilitating transactions, the determination of interest rates, the individual asset markets and the institutions that are active in them.

MBA 573 Commercial Banking Lec. 3./Credit 3.
Develops an understanding of banks, financial markets and their relationship to public policies and management policies. Included are issues related to the role of banks in corporation finance, the special nature of bank loans, credit risk analysis, loan pricing and interest rate risk management. The course concludes with recent developments including the securitization of bank loans and loan sales. Includes Series 7 Preparation.

MBA 599 Independent Study I Credit 13.
Independent study in methods used under the direct supervision of a graduate faculty member. Course requirements may include: case study research and technical report writing and/ or scholarly research paper.

MBA - Business Administration Program Graduate Only

MBA 600 Logistics and Transportation Management
Lec. 3./Credit 3.
Prerequisite: Graduate Standing. Pipeline/network/system management focusing on the integration of function areas to move products in a globally competitive environment. The application of the concept learned integrated with real-time technology. Interdisciplinary problem solving, strategy exercise, decision games and other applied models.

MBA 601 Quality & Supply Chain Management
Lec. 3./Credit 3.
Prerequisite: Graduate standing. Addresses the complexities associated with the control management of total quality systems in both manufacturing and service environments. The course includes an intensive descriptive and inferential statistical component.

MBA/MGT 603 Internet Law **Lec. 3./Credit 3.**
Internet Law provides an analysis and overview of the laws impacting individuals and organizations transacting business via the Internet. With e-commerce being a rapidly growing segment of the economy, this course will assist individuals and organizations in understanding their legal rights and duties in conducting business via the Internet.

MBA 605 Quantitative Applications in Decision Making
Lec. 3./Credit 3.
Introduction to statistics and related mathematical tools used in decision making, to include both descriptive and inferential statistics. Business applications and writing component.

MBA 608 Advanced Topics in Business Information Systems
Lec. 3./Credit 3.
Prerequisite: Graduate standing, MBA 314. Survey of the current issues and future of business information systems.

MBA 609 Accounting Concepts **Lec. 3./Credit 3.**
Accounting terminology is presented along with the various procedures used in the presentation of financial information. The student is given the skills necessary to interpret and analyze published financial statements.

MBA/MGT 610 Business Research **Lec. 3./Credit 3.**
Involves the study and application of business research methods. Includes survey research, sampling procedures, observational techniques, experimental research designs, descriptive and basic inferential statistics and interpreting and representing research reports.

MBA 611 Internship **Trn./Credit 1-6.**
Full-time affiliation as a graduate paid intern with a School of Business approved organization, or corporation. Prerequisite: Advanced graduate standing, permission of a director and certification by the internship office.

MBA 616 Economics of e-Commerce **Lec. 3./Credit 3.**
This course will provide students access to a broad range of material examining the economic, technological, legal and behavioral forces driving rapid diffusion of electronically enabled cross border trade. It will examine the strategic implications of the rapid diffusion of this new phenomenon, and explore the practical considerations in pursuing the resulting business opportunities.

MBA 617 International Economic Environment
Lec. 3./Credit 3.
Provides a foundation in macroeconomic theory for understanding the workings of international money markets and for analyzing ongoing trends in economic activity. Will place emphasis on international financial flows, macroeconomics policy strategies and exchange rate determination. Extensive writing requirement.

MBA 620 Commodities and Futures Trading
Lec. 3./Credit 3.
Analyzes options, futures and commodities trading and securities; appropriate valuation techniques. Also considered are, in brief, analysis of funds, commitments to current assets, short-term financing, evaluation and choice financial assets and the principal issues of risk management, investment policy and financial markets. Prerequisite: Financial Reporting 313.

MBA 624 The Marketing Process **Lec. 3./Credit 3.**
Synthesis of the fundamental concepts of marketing and provide the student with a working knowledge of the marketing function.

MBA 625 Marketing Management **Lec. 3./Credit 3.**
An analysis of all aspects of the marketing functions and the firm, including such basic managerial tasks as analysis of consumer demand, selection of market targets, deciding on strategies, and combining the various marketing tools in the marketing mix, i.e., product offerings, pricing, promotion, and distribution. This is a case study course. Prerequisite MBA 624.

MBA/MGT 630 Legal Environment of Business
Lec. 3./Credit 3.
The interface between business and public policy, government regulations, social and legal issues covering the legal environment of business, includes business ethics and responsibility.

MBA/MGT 648 Human Resource Administration
Lec. 3./Credit 3.
Human behavior in organizations, and the role of the personal manager; exploring the behavior of the individual, the small group, and improving, sustaining, and maintaining human resources of the organization in a changing environment; includes recruitment selection, manpower planning, appraisal and evaluation, training and development, wage and salary administration, health and safety, labor relations and counseling and transfer.

MBA 650/FIN 620 Managerial Economics Lec. 3./Credit 3.
Managerial Economics is a model building and problem-solving course. Economic analysis is used in decision-making context. The course bridges the gap between purely abstract microeconomic theory and managerial practice. Various quantitative methods are integrated with basic microeconomic concepts that are relevant to decision-making within both the private and public sectors. The importance of marginal analysis is stressed throughout. Prerequisite: MBA 600 or equivalent.

MBA 651/ECO 621 Macro Environment of Business Lec. 3./Credit 3.
In this course students are introduced to the analysis of determination of national income, employment, prices and growth. Major sectors of the economy, fiscal monetary policy, interest rates and inflation are covered. Extensive writing requirement. Prerequisite: MBA 600 or equivalent.

MBA 654 Entrepreneurial Concepts Lec. 3./Credit 3.
Includes an overview of entrepreneurial concepts for venture analysis and creation; assess venture creation strategies; and develops business-planning skills. Students review and analyze strategies for business growth by using simulation tools and case studies. Students also develop and implement a business-planning workshop for small businesses in collaboration with the Hampton University Business Development Center.

MBA 655 Financing Entrepreneurial Ventures Lec. 3./Credit 3.
Prerequisite: Graduate Standing. Includes an overview of creative solutions to access capital; alternative deal structures; and financial planning. Emphasis is on financial planning for new start-ups, buyouts and franchises using simulation tools and case studies.

MBA 656 Consulting Practicum Credit 1.
Includes an overview of consulting concepts and practices. Discusses internal and external consulting issues. Assesses the use of management information systems (MIS) techniques and tools in improving the consultant's effectiveness. Students participate in a consulting engagement with an internal or external client.

MBA 657 Entrepreneurial Practicum Credit 1.
Field work developing new ventures, buyouts or franchises. Students will develop a business plan with guidance from an external entrepreneur mentor; test market product/service and refine business plans for actual implementation.

MBA 658 Cases in Business Failure Lec. 3./Credit 3.
A survey of unsuccessful ventures which includes a critical analysis of the primary reasons for failure. Extensive writing component.

MBA 659 Seminar in ETR, ECO & Information Technology Credit 3.
A seminar which combines concepts, and applications of entrepreneurship, economics and information technology. Includes risk assessment and risk taking exercises in addition to software or hardware development.

MBA/MGT 660 Information Systems Development Lec. 3./Credit 3.
Familiarizes students with the concepts and methodologies inherent in design and development of management information/ decision support systems through systems analysis; includes use of advanced integrated spreadsheet programs for marketing, finance, production/operations and overall business management applications. Prerequisite: MGT 602 or equivalent.

MBA 670 Theory of Finance Lec. 3./Credit 3.
This course develops an understanding of current financial theory and its implications for financial problem solving. Develops an understanding of the analytical framework for making decisions in the areas of financial planning and control, sources of financing and their relation to the firm.

MBA 671 International Business Lec. 3./Credit 3.
Review of historical, governmental, monetary, and cultural issues affecting the conduct of business in the United States and in foreign countries. Includes import-export relations among countries, and includes cultural and sociological aspects of international business.

MBA 672 Financial Analysis Lec. 3./Credit 3.
A study of essential concepts of financial analysis including ratio analysis, description and use of financial instruments, analysis of business conditions, investment decisions, as they relate to financing the corporation, and the time value of money. Prerequisite: MBA 600 or equivalent.

MBA 675 Managerial Finance Lec. 3./Credit 3.
A study of the conceptual and practical problems associated with investment management. Topics considered are, in brief, analysis of funds, commitments to current assets, short-term financing, evaluation and choice of financial assets and the principal issues of risk management, investment policy and financial markets. Prerequisite: MBA 600 or equivalent.

MBA 676 Seminar in International Finance Sem. 3./Credit 3.
Seminar on international financial markets and exchange rates. Includes the pricing of foreign exchange, the use of forward exchange for hedging, foreign currency options, international capital asset pricing, the pricing of foreign currency bonds, currency swaps, foreign currency financing and exposure management. Also discusses the balance of payments, exchange rate determination and the operation of the international monetary system with emphasis on the effect of the international economy on both domestic and multinational business enterprises.

MBA/MGT 681 Organization Theory and Practice Lec. 3./Credit 3.
Theories and applications of knowledge of behavior in the organizational setting to include individual, group and organizational processes. The course typically covers motivation, group dynamics, decision-making, leadership, and the design and development of organizations.

MBA/MGT 690 Strategy & Business Policy Lec. 3./Credit 3.
Policy and strategy formulation at the general manager's level. Synthesis of material presented in other courses, use of the case method to study management of the overall enterprise. This is a capstone course. Prerequisites: MGT 681, FIN 600 or equivalent, or permission of the Graduate Advisor.

MBA 699 Independent Study II Credit 3.
Graduate level independent study in complex systems, operational, reporting or quantitative methods. This course includes advanced case study research and analysis, in addition to technical report writing, and analytical model development. Prerequisite: MBA 599 and permission of the Dean of the School of Business.

MES (Marine and Environmental Science) Note: Formerly ESC and MAS

MES 101 First Year Seminar Lec. 1. Credit 1.
A unique first year research seminar course that investigates the diversity of current research topics in the marine and environmental sciences (MESC) through hands on activities and presentations and discussion sessions with invited speakers. Topics include the functions of MESC scientists, and a better understanding of the fundamentals of MESC.

MES 110 Physical, Economic and Environmental Geology Lec. 3. Lab 3. Credit 4.
Importance of plate tectonics upon formation and global distribution of mineral and energy resources. Coverage of traditional and alternative energy production. Extraction techniques and use of minerals, as well as energy sources and environmental concerns. Basic map reading and construction. Introduction to GIS/GPS technology.

MES 130 Introduction to Environmental Science Lec. 3. Credit 3.
Exploration of the multidisciplinary science of the environment. Examination of contemporary issues such as air and water pollution, global climate change, ozone depletion, acid rain, hazardous and solid waste, alternative energy resources, soils, deforestation, overfishing, biodiversity, and endangered species, and their ecological, economical, and human health impacts.

MES 131 Laboratory Techniques in Environmental Science Lab. 3. Credit 1.
Data collection and analyses conducted in the local terrestrial and aquatic environment. Includes sampling techniques, microscopy, instrumentation and technology training. Co-requisite: MES 130.

MES 132 Earth's Systems, Processes and Biomes Lab. 3. Credit 1.
Examination of the Earth/Sun system and the greenhouse effect, discussion of paleoclimates and ice ages, processes of weather and their relation to climate, geographic extent of ecosystems and biomes, field trips to Chesapeake Bay, waterworks, sewage treatment facilities and local parks. Co-requisite: MES 130.

MES 150 Environmental Oceanography Lecture 3. Credit 3.
A multidisciplinary course which examines the human relationship to the sea through a study of scientific, historical and literary accounts. Importance of climate oscillations and anthropogenic effects on global climate change. Consideration of global warming and sea level rise in highly populated coastal regimes. Exploring the role of the sea in shaping human cultures, and how the sea responds to human interventions.

MES 191 Introduction to Research Topics in Marine and Environmental Science Sem./Prj. Credit 1-3.
Designed for first year students. Emphasis placed upon introduction to areas of marine and environmental science research, regular attendance at appropriate seminars, techniques of literature searches, and background study. This course may be taken twice.

MES 202 Physical Geology Lec. 3./Lab 3./Credit 4.
Study of the formation of the planet earth and its physical processes: plate tectonics, mountain building, mass wasting and sedimentation. Consideration of the physical geology of the world's oceans and continental features. Petrology of igneous, metamorphic and sedimentary rocks. Basic map reading. Field trips.

MES 203 Introduction to Environmental Science Lec. 3./Lab 3./Credit 4.
A basic ecology course investigating the interaction between organisms and their biotic and abiotic environment, focusing on human populations and their effects on the natural environment. Laboratory periods will be concerned with the earth/sun system and the resultant global climate and biome distribution. Several field trips will be taken to local areas of interaction between man and the natural environment.

MES 204 Introduction to Environmental Science Lec. 3./Credit 3.
A basic ecology course investigating the interaction between organisms and their biotic and abiotic environment, focusing on human populations and their effects on the natural environment.

MES 210 Biometry: Introduction to Environmental Statistics Lec. 3.Lab. 3.Credit 4.
Application of statistical methods to problems encountered in the ecological and environmental sciences. Methods include sampling design, data visualization, population parameter estimation, hypothesis testing, the Normal and other probability distributions, single-factor and multifactor analysis of variance (ANOVA), correlation and linear regression. Laboratory projects carried out using EXCEL and statistical software.

MES 211 Laboratory Techniques in Environmental Science Lab 1./Credit 1.
Data collection and analyses conducted in the local marine and estuarine environment. Includes sampling techniques, microscopy, instrumentation and technology training.

MES 212 Earth's Systems, Processes and Biomes Lab 1./Credit 1.
Examination of the Earth/Sun system, computation of sun angles, processes of weather and their relation to climate, geographic extent of ecosystems and biomes, field trips to Chesapeake Bay and local sites.

MES 230 Introduction to Marine Science Lec. 3. Lab. 3. Credit 4.
Fundamentals of oceanography with particular reference to physical, chemical, geological, biological and engineering aspects of ocean science. Interdisciplinary approach to the sciences and fields involved with the study of the world's oceans and coastal bodies of water. Focus on current topics: ocean acidification, El Nino, global warming. Prerequisites: MES 110, MES 130 and MES 131.

MES 291 Basic Research Topics in Marine and Environmental Science Sem./Prj. Credit 1-6.
Designed for sophomore-level students. Emphasis will be placed upon introduction to basic techniques of conducting research and literature review, regular attendance at selected seminars, and directed work on a research project in marine and environmental science. This course may be taken twice. Prerequisite: Consent of the research mentor.

MES 300 Internship Trn. Credit 3.
Research experience at off-campus laboratory facilities. Instructional activities include laboratory and field studies in marine and environmental science areas. Duration is approximately 10 weeks. A deliverable such as a poster or presentation at a conference is emphasized. Summer registration required.

MES 301 MESC Seminar Sem. 1. Credit 1.
A seminar course designed to expose students to contemporary issues in environmental problems focusing on environmental restoration and waste management. Seminar presentation is required for each student.

MES 301 Biometry Lec. 2./Lab 3./Credit 3.
Application of parametric and non-parametric statistics to data generated in various areas of biology and environmental science; analysis of growth curves and population fluctuations. Special emphasis on data presentation and decision-making. Programmable calculators or computers are used extensively.

MES 303 Geological Oceanography Lec. 3./Credit 3.
Classification of marine sediments and processes of sedimentation. Investigation of marine sedimentary environments: estuaries, bays, shallow seas, shelves and abyssal depths. Extensive investigation of plate tectonic processes and history of major ocean basins. Prerequisite: ESC 202 or consent of instructor.

MES 310 Biological Oceanography Lec. 3./Credit 3.
Introduction to the organization of benthic and planktonic communities in the ocean. Quantitative treatment of biotic and abiotic processes. Special topics include: microbial dynamics, phytoplankton and zooplankton production, and ecology of marine food webs. Emphasis placed on understanding how physical, chemical, and geological factors shape the biology and ecology of the ocean system. Prerequisite: MES 23.

MES 350 Geological Oceanography Lec. 3. Credit 3.
Classification of marine sediments and processes of sedimentation. Investigation of marine sedimentary environments, especially those producing fossil fuels. Plate tectonic processes, oceanic distribution of oil and gas reserves, history of major ocean basins. Prerequisite: MES 230.

MES 351 Chemical and Physical Oceanography Lec. 3. Credit 3.
Chemical and physical properties of ocean basins and sea water; case studies of El Nino and the Sargasso Sea. Primary productivity and nutrient cycling in oceans; carbon sequestration. Dynamics of ocean currents and properties of water masses. Physics of tides and estuarine circulation. Prerequisite: MES 230.

MES 410 Coastal and Oceanic Processes Lec. 3. Credit 3.
Investigation of sediment transport within the littoral environment and the dynamic influence of waves upon beaches and coastal structures. Forces affecting particle erosion and deposition. Barrier island formation and circulation of estuarine systems. Long term sea level fluctuation and the effects of global warming on low-lying coasts. Prerequisite: MES 23.

MES 430 General Ecology Lec. 3. Lab 3. Credit 4.
Basic interrelations of plants and animals with physical and biotic factors of the environment. Prerequisites: BIO 210 and co-requisite BIO 220.

MES 450 General Marine Biology Lec. 3. Lab 3. Credit 4.
An introduction to the field of marine biology and the marine environments. Students will learn basic marine sampling techniques and basic organism identification. Students will also explore the different components of the marine environment, in particular Chesapeake Bay and its tributaries. Prerequisites: BIO 210; Corequisite BIO 220.

MES 451 Management of Marine Resources Lec. 3. Credit 3.
Emphasis on conservation of natural resources, including seafood and other substances involved in the food chain of beneficial organisms. Considerations of energy potentials, mineral resources and technologies that impact on the marine environment.

MES 452 Marine Ecology Lec. 3. Lab 3. Credit 4.
Examination of ecological structure and dynamics in marine and estuarine habitats at organismal, population, community, and ecosystem levels. Geographic aspects and human interactions with marine ecosystems including anoxia in Chesapeake Bay are also investigated. The laboratory includes investigation of different types of estuarine and coastal habitats, field and laboratory techniques, and design of basic marine ecological investigations. Prerequisites: MES 230, BIO 210; Corequisite BIO 220.

MES - Marine and Environmental Science Undergraduate/Graduate

MES 500 General Ecology (2) Lec. 2./Lab 3./Credit 3.
Basic interrelations of plants and animals with physical and biotic factors of the environment. Prerequisites: Consent of department, BIO 210 and 220.

MES 501 Geomorphology Lec. 2./Lab 3./Credit 3.
Underlying geologic interpretation of world landscapes, processes of soil formation and types. Glaciation. Interpretation of tectonic activity from topographical and geological maps. Introduction to field mapping. Prerequisite: ESC 202 or consent of department chair.

MES 502 Sediments and Stratigraphy
Lec. 2./Lab 3./Credit 3.
Classification and dating of sedimentary rocks. Sedimentary environments and processes. Use of fossils in stratigraphy. Interpretation and construction of stratigraphic maps. Correlation of sedimentary rocks and the importance of orogenic activity. Introduction to geologic mapping. Prerequisite: ESC 202.

MES 510 Environmental Toxicology Lec. 3. Credit 3.
Lecture course covering the basic principles of environmental toxicology, including acute and chronic effects of toxicants in ecosystems, methods of testing and remediation. Prerequisite: CHE 301.

MES 511 Seminar in Environmental Science
Sem. 1./Credit 1.
A seminar course designed to expose students to contemporary issues in environmental problems focusing on environmental restoration and waste management. Seminar presentation is required for each student. Prerequisite: Permission of department chair.

MES 512 Research Problems in Environmental Science
Credit 2-3.
A course of directed study in which a student learns how to develop and research a problem in environmental science.

MES 513 Internship in Environmental Science
Trn./Credit 3.
A field placement experience in which students work with environmental scientists to gain practical experience in the field. Placement may be at a government agency, national laboratory, industry, academic institution, or other appropriate institutions.
Prerequisites: ESC 203 and permission of department chair.

MES 514 Research Techniques in Environmental Science
Lec. 3./Lab 2./Credit 4.
Capstone course that implements advanced aspects of data collection and statistical analyses with the use of statistical software, spreadsheets and databases. ANOVAs, regression, hypothesis testing for non-normal and non-parametric data are covered. Includes formal written and oral presentations. Prerequisites: ESC/ SCI 301 or MAT 205; MAS 304/414; or permission of instructor.

MES 518 Ichthyology Lec. 3. Lab 3. Credit 4.
The morphology, taxonomy, and embryology of marine fishes; some consideration of problems in speciation and economic productivity. Prerequisite: BIO 220.

MES 550 Research Techniques in Environmental Science
Lec. 3. Lab 1. Credit 4.
Application of advanced aspects of data collection and statistical analyses with the use of statistical software; spreadsheets and databases. ANOVAs, regression, hypothesis testing for non-normal and non-parametric data and information theoretic approaches are covered. Includes formal written and oral presentations. Prerequisite: MES 210 or MAT 205.

MES 551 Geomorphology Lec. 3. Credit 3.
Underlying geologic interpretation of world landscapes, processes of soil formation and types. Glaciation. Interpretation of tectonic activity from topographical and geological maps. Introduction to field mapping. Prerequisite: MES 110.

MES 552 Sediments and Stratigraphy Lec. 3. Credit 3.
Classification and dating of sedimentary rocks. Sedimentary environments and processes. Use of fossils in stratigraphy. Interpretation and construction of stratigraphic maps. Correlation of sedimentary rocks and the importance of orogenic activity. Introduction to geologic mapping. Prerequisite: MES 110.

MES 553 Limnology Lec. 3. Lab. 3. Credit 4.
Study of lakes and inland waters with emphasis on ecology and the interacting physical, chemical, and geological factors affecting their structure and function. The role of limnology in the management of water resources will be investigated. Several labs will be field trips followed by the identification of specimens collected and analysis of data gathered. Prerequisites: BIO 210 and BIO 220.

MES 554 Marine Algae Lec. 2. Lab 3. Credit 3.
The taxonomy, morphology, and general ecology of marine algae, including planktonic littoral and benthic forms. BIO 210. MES – Graduate Only.

MES 613 Environmental Science Internship
Lec. 3./Credit 3.
A field placement experience in which students work with environmental scientists to gain practical experience in the discipline. Placement may be at a government agency, national laboratory, industry, academic institution, or other appropriate institutions.
Prerequisite: ESC 203 and permission of department chairman.

MES 616-617 Research Problems I-II Credit 1-12.
Research on problems that could lead to a master's thesis in the environmental sciences.

MET (Music Engineering Technology) changed to MRT (Music Recording Technology)

MFL (Modern Foreign Languages)

MFL 101 English for International Students
Lec. 3./Lab l./Credit 3.
This course is specifically designed for students who are not native speakers of English. Deals with pronunciation, reading comprehension, spoken and written communications.

MFL 102 English for International Students II
Lec. 3./Lab 1./Credit 3.
This course is specifically designed for students who are not native speakers of English. Deals with pronunciation, reading comprehension, spoken and written communications.

MGT(Management)

MGT 215 Principles of Statistical Analysis Lec. 3./Credit 3.
Methods of collecting, organizing, presenting, analyzing, and interpreting business and economic data. These include descriptive statistical methods such as mean, standard deviation and distribution, and inferential statistical methods such as confidence interval, hypothesis testing, one way ANOVA and simple regression. Emphasis will be placed on the application of statistical analysis in decision making. Prerequisite: MAT 117.

MGT 216 Quantitative Methods Lec. 3./Credit 3.
Techniques for Decision Making in Business including: correlation and multiple regression analysis; decision analysis; time series and indices; decision trees; applications of various linear programming methods. Algorithms will be applied to finance, advertising, transportation, marketing, accounting and management problems. Use of computer software packages. Prerequisite: MGT 215 and MAT 130.

MGT 300 Business Research Lec. 3./Credit 3.
This course exposes students to basic research for business. The course includes: problem identification, research planning, research methodology, sampling methods, data gathering, statistical analysis techniques, and writing research reports. The role of research in business decision making will be explored. This course is designed so that students are able to use research to solve real world problems faced by the business community. Prerequisite: MGT 215.

MGT 301 Business Organization and Management
Lec. 3./Credit 3.
A survey and foundation course in management that typically covers the development of management as a discipline and current theories and practices of leading, organizing, decision-making, communications, and controlling applicable to the business enterprise.

MGT 305 Legal Environment of Business I Lec. 3./Credit 3.
The nature, structure, and process of our legal system. Representative topics include courts: business and its global legal environment, the court system, alternative dispute resolution, business ethics, constitutional law, administrative law, international law, torts and strict liability, torts and crime related to business, contracts, business organization, consumer protection law, and environmental law. Prerequisite: MGT 301.

MGT 306 Legal Environment of Business II
Lec. 3./Credit 3.
Development of legal knowledge through case analysis. Representative topics include: sales, product liability, creditor-debtor relations and bankruptcy, intellectual property and computer law, employment and discrimination law, labor law, antitrust and monopoly, antitrust and restraints of trade, securities regulation, land use control and real property, rights and duties within a corporation. Prerequisite: MGT 305.

MGT 312 Personnel/Human Resources Management
Lec. 3./Credit 3.
Principles and practices of human resource administration, including employee recruitment, selection, placement, training, performance evaluation, compensation, benefits, labor relations, safety, and health will be covered. The strategic role of human resources, equal opportunity, managing careers and fair treatment, and the role of human resources in international business will be also be explored. The course emphasizes practical application and preparation for success as a manager. Prerequisite: MGT 301.

MGT 315 Training and Development in Organizations
Lec. 3./Credit 3.
Identifying, assessing, developing, conducting, and evaluating planned learning activities for the purpose of increasing employee performance and organizational effectiveness. The process of needs assessment, diagnosis, interventions, and evaluations will be practiced for various client systems. Prerequisite: MGT 312.

MGT 316 Compensation and Benefits Administration
Lec. 3./Credit 3.
Exploration of the process, concepts, and methods used to determine rewards and indirect financial compensation or benefits. Compensation and benefit administration, cost pressures and legal challenges, and survival strategies in a competitive international marketplace will be covered. Prerequisite: MGT 312.

MGT 321 Management of International Business
Lec. 3./Credit 3.
Examines the international business environment and its impact on management. Focuses on the organization, operation and management of multinational businesses. Emphasizes cross-cultural communications and issues of control and staffing for business operations in foreign countries. Prerequisite: Junior-standing.

MGT 323 Information/DP Systems Management
Lec. 3./Credit 3.
Introduction to information systems concepts and applications, determining information system requirements, and selecting and implementing information systems which meet the needs of an organization. The course emphasizes how information systems technology supports key business functions; what information resources are available; how managers are involved in the system design, and how information technology supports business strategy. Prerequisite: MGT 205 or equivalent, including proficiency test.

MGT 330 Management of Small Business Lec. 3./Credit 3.
Issues in management of the small business enterprise — startup, financing, record keeping, making reports, marketing, problem identification and resolution, staffing and communicating. A business plan will be developed as a course research project.

MGT 340 Business Communication Lec. 3./Credit 3.
Emphasizes correspondence as a function of business. Stresses: format, clarity, and style in composing letters, reports, memoranda, and speeches to further the general aims of business. Incorporates extensive use of technology for professional presentations.

MGT 360 Cooperative Education/Internship Credit 3-9.
Co-ops and internships are on-the-job experiences in the area of management in business or government to serve as a laboratory for integrating the theoretical with practical experiences. Co-ops are for six-months duration and worth up to 9 credits, whereas, internships are for summer employment and worth up to 3 credits. Students may arrange for co-ops or internships in their junior and senior years. Prerequisite: Permission of the department chairperson.

MGT 370 Transportation Management Lec. 3./Credit 3.
Acquaints the student with the major, current, and emerging issues in transportation. Emphasis is on urban transportation problems, national policies and legislation, physical distribution systems, inventory management, and Intelligent Transportation Systems.

MGT 400 Organizational Behavior Lec. 3./Credit 3.
Survey of behavioral science theories and research contributing to understanding the individual and groups in organizations. Representative topics include: motivation, group and intergroup behavior, leadership, power and influence, decision-making, job design, organizational change and development. Prerequisite: Junior standing.

MGT 402 Production/Operations Management
Lec. 3./Credit 3.
Familiarizes the student with production/operation phase of business activity. Emphasis is on developing the ability to apply analytical methods and modern technology to manufacturing and services organizations. Prerequisite: MGT 215 and 216 or permission of the instructor.

MGT 412 Labor-Management Relations Lec. 3./Credit 3.
Historical background of modern labor problems, growth of trade unionism, union policies and activities, principles and practices of collective bargaining, and role of government. Prerequisite: Junior standing.

MGT 413 Business and Government Lec. 3./Credit 3.
Examining the relationship between government policies and business practices, the course explores balancing of business interests with issues of global economic development and social welfare. Illustrative topical issues include environmental policy, technology policy, new business creation, antitrust concerns, global competitiveness, taxation, and employment.

MGT 414 Business Ethics Lec. 3./Credit 3.
Business Ethics covers the historical and intellectual foundations of ethics and applications to business. The course seeks to heighten the student's awareness of the ethical implications of business decision making. This is accomplished by involving the student in the creative process of developing analytic and reasoning skills for reflective moral decision-making and conduct. Typical content includes ethical perspectives and their implications; corporate social responsibility; ethical management of work and people; lying and truth telling in business; ethical issues in business accounting, finance, marketing and investment; and, conflicts of interest.

MGT 415 Human Relations in Organizations
Lec. 3./Credit 3.
Exploration of various approaches to leadership, decision-making, communication, problem-solving, conflict-resolution, creativity, and other issues faced by task oriented groups in organizations. Prerequisite: MGT 312.

MGT 416 Technology and Innovation Lec. 3./Credit 3.
As business confronts a changing technological environment, the course introduces the business student to the problems of creating, integrating, and managing product and process innovations. The course is an interdisciplinary approach to the issues of creativity, new product development, management of research and development, productivity, flexible manufacturing systems, robotics, quality control, and future trends in business.

MGT 417 Legal Aspects of Human Resource Management
Lec. 3./Credit 3.
Overview of legal issues that are especially relevant to human resources management including: Age Discrimination Employment Act 1967, Americans with Disabilities Act 1990, Civil Rights Act 1964, Equal Employment Opportunity Programs, Family and Medical Leave Act 1993, Pregnancy Discrimination Act 1978, Rehabilitation Act 1973, and Sexual Harassment. Examples of equal opportunity and employment laws in other countries that effect multinational corporations and trade will be covered. Prerequisite: MGT 305, 321.

MGT 418 Cross-Cultural Management Lec. 3./Credit 3.
Exploration of the various issues and opportunities that arise when managing outside one's own culture. The manager's credibility and effectiveness in cross-cultural settings will be studied. Includes the application of cross-cultural management strategies for students interested in managing multinational organizations that have mixed culture environments. The course also provides students with skills needed to manage in single culture environments where sub-culture differences exist. Prerequisite: MGT 312, 321.

MGT 419 Individual, Group and Organizational Dynamics
Lec. 3./Credit 3.
Theories of individual, group and organizational processes willbe explored. Focus on individual and group behavior in various organizational settings. Discussion of organizational development principles and processes and their role in designing and improving organizational effectiveness to include interand intra-unit relationships. Prerequisite: MGT 312, 400.

MGT 420 Selection and Recruitment Lec. 3./Credit 3.
The application of selection and recruitment theory, concepts, and practices as they impact on personnel selection in organizations. The primary focus is management of the selection and recruitment process. Prerequisite: MGT 312.

MGT 421 Business Seminar Sem. 3./Credit 3.
A senior level course for advanced study of topical issues in business management. This course requires extensive readings, the design and conduct of individual research. Prerequisites: All core courses, and permission of the instructor.

MGT 444 Special Topics in Business Lec. 1-3./Credit 1-3.
Special Topics in Business is an elective course that varies in subject. The course typically reflects student and/or faculty interest in a topic normally outside or additive to the curriculum. Topics have included Internet Law and Organizational Development. Students interested in this elective should check with the department for current content.

MGT 480 Senior Seminar Sem. 3./Credit 3.
The focus of the seminar is an individual research project on a contemporary business issue contemplated through lecture series by leading scholars and business executives. Students will be required to prepare a senior thesis at the end of the course.

MGT 499 Business Policy and Strategy Lec. 3./Credit 3.
The application of knowledge and methods from accounting, economics, finance, marketing, and management to business competition. The conceptual framework is that development of a firm's relative competitive advantage is affected by the larger environment of economy and society, the structure of industry, and distinctive competencies of the firm. The course aims to develop the student's synthesis of knowledge, use of judgment, and applied research skills through case analyses. Prerequisite: Last semester of senior year. Business majors should have completed core courses. Non-business majors require permission of the instructor.
MGT (Management – Undergraduate/Graduate)

MGT 554 Total Quality and Supply Chain Management
Lec. 3./Credit 3.
Prerequisite: Graduate standing. Addresses the complexities associated with the control management of total quality systems in both manufacturing and service environments.

MHA (Master of Health Administration – Online – Graduate Only)

MHA 609 Organizational Theory, Behavior and Practice
Lec. 3./Online/Credit 3.
Exploration of concepts and theories of organizational behavior as it relates to health systems. Designing leadership strategies that focus on those components that comprise effective functioning in selected organizations will be studied. Emphasis will be placed on oral, written and interpersonal communication skills. Nursing 512Organizational Behavior/Group & Role Theory undergirds content for this course.

MHA 610 Epidemiology: Principles and Applications
Lec. 3./Online/Credit 3.
Presentation of the principles and concepts in planning for responding to issues facing the public health in the communities. The determinants, risk factors, biostatistics and preventive evaluative measures emphasized and opportunities for field studies will be provided.

MHA 611 Managed Care and Health Insurance
Lec. 3./Online/Credit 3.
Trends affecting manage care and insurance options will be studied. The risk of not adhering to medical regime and cost of insurances and other options for care will be explored. How do trends in care and cost of insurances and other financial issues affect the services of the underserved are studied.

MHA 612 Health Policy and Planning
Lec. 3./Online/Credit 3.
Provides a basis for understanding the influence of politics and special interest groups on the operation and effectiveness of health systems. The legislative process and policy making will be emphasized. The process of planning and obtaining approval for health systems in the community will be included. Health policy formulation, implementation, and evaluation will be explored. Nursing 713 Family Nursing: Planning and Policy Leadership undergirds content for this course.

MHA 613 Health Finance and Accounting
Lec. 3./Online/Credit 3.
Examines financial operations through theory and techniques of corporate management in health systems. Cash flow, financial accounting, financial analysis and other aspects in managing providers and payers. Nursing 648 Financial Management for Nurse Administrators undergirds content for this course.

MHA 614 Health Law Lec. 3./Online/Credit 3.
A focus on the law and legal issues associated with the practice of health administration. Case law and analysis will be used in presentation of principles as they apply to the administration of hospitals and health care systems.

MHA 615 Ethics for Healthcare Professionals
Lec. 3./Online/Credit 3.
This course will explore the major schools of thought represented in ethics for health care providers. Theories of moral development, moral reasoning, ethical decision-making, and professional codes of ethics will be presented and applied within case study analysis and discussion.

MHA 616 Health System Operations: Fiscal Management
Lec. 3./Online/Credit 3.
Provides an overview of early to current American hospitals, Long term care and free standing systems. Specific focus will include governing bodies, organizational structure, services, fiscal aspects, accreditation and license process.

MHA 617 Strategic Planning Lec. 3./Online/Credit 3.
Organizations of all types must have a process for reviewing goals and focusing on outcomes. Strategic planning is a way to study performance and subsequent outcomes to determine strategies to maintain, improve, or change goals and objectives. The process will focus on superior performance, marketability, and opportunities to be fiscally sound in managing organizations.

MHA 618 Executive Leadership and Management
Lec. 3./Online/Credit 3.
Explores the development of effective leadership utilizing theoretical principles, models, key concepts of leadership and the effect of human behavior. Analyze the role of healthcare executives in a dynamic health system.

MHA 619 Health Information Management Systems
Lec. 3./Online/Credit 3.
Focuses on the integration of technology and clinical systems in health care organizations such as electronic health records. Strategic decisions about financial impact, actual cost (budget) and trends, and how information technology improves quality, efficiency and safety of health care.

MHA 620 Executive Skills Seminar
Sem. 1./Online/Credit 1.
An applied seminar which allows students to focus on leadership development and personal effectiveness. Executive leadership and behavior expected of program graduates will be emphasized.

MHA 621 Health Care Quality and Safety
Lec. 3./Online/Credit 3.
Health care quality and safety has had international impact on the global communities. Understanding the meaning of quality as it relates to safety will be explored for individuals, groups, and communities across racial and ethnic populations. The desired outcomes of indicators of quality also will be explored across the lifespan for the groups studied.

MHA 622 Health Administration: Practicum I
Prj./Online/Credit 4.
Focuses on the application of concepts from organizational theory, organizational behavior and organizational development as an interconnected domain. Explores alternative approaches in problem solving, personnel issues and operational management of a health facility.

MHA 623 Health Administration: Practicum II
Prj./Online/Credit 3.
Continues the focus of Health Administration Practicum I with the addition of the impact of internal and external stakeholders and other variables affecting decision making.

MHA 624 Capstone Research Project Prj./Online/Credit 3.
Students will complete a scholarly research project that focuses on an identified problem or issue in the healthcare system. It will culminate in a tangible research report suitable for publication. The project will be developed and implemented under the guidance of course faculty.

MHA 626 Grant Writing Lec. 3./Online/Credit 3.
Focuses on the development of grant proposals for government, private and foundation funding. Students will be required to explore funding sources and develop an approach for a proposal to the funding agency. This class will be structured to foster an interdisciplinary team approach between administrators and nurses in a health care system. Students will register for the course in their discipline. A completed proposal suitable for submission will be required.

MHA 699 Independent Study in Health Administration
Ind./Online/Credit 1-6.
Independent study as directed by graduate faculty. Research focus or pursuit of an area of special interest may be contracted. Independent study and/or practicum hours weekly commensurate with credit hours contracted.

MIS (Management Information Systems)

MIS 209 Introduction to Computer Programming Techniques (CSC 200) Lec. 3./Credit 3.
Basic programming concepts. Data types, control structures, subroutine, modularization, etc. Simple search techniques. Introduction to file and data structures. Introduction to a high level programming language. Problem solving concepts. Prerequisite: MAT 109 or higher.

MIS 302 Business Application Programming (CSC 316)
Lec. 3./Credit 3.
Advanced computer programming. System specification and docmentation. Principles of good programming style. Technique of sorting and searching. Business transaction processing. Complex file management. Prerequisite: MIS 209/CSC 200.

MIS 309 System Analysis and Design I (CIS 320)
Lec. 3./Credit 3.
System development life cycle. Tools and techniques for describing process flows, data flows, and data structures. Computerbased tools for systems analysis. Project management, project scheduling and resource management and control. End-user issues, human/machine interfaces. Program specifications. Transition from analysis to design. Prerequisite: MIS 209/CSC 200 and MIS 302/CSC 316.

MIS 401 Concepts of Database Management Systems (CSC 323) Lec. 3./Credit 3.
Introduction to database concepts. Hierarchical, network, flat file, distributed, and relational databases. Database normalization. File security, data integrity and reliability. Access to and manipulation of large databases. Querying, including SQL. Prerequisite: MIS 209/ CSC 200 or permission of the instructor.

MIS 403 Concepts of Data Communication (CSC 325) Lec. 3./Credit 3.
Concepts of telecommunications, data communications, data interfaces and techniques, data security. Introduction to networks, architectures and protocols. Network management. Prerequisite: MIS 209/CSC 200 or permission of the instructor.

MIS 406 System Analysis and Design II (CIS 410) Lec. 3./Credit 3.
Design and implementation. Computer programming and system development concepts. Design of file, testing, implementation. Security and control. Use of computer-aided software engineering (CASE) and fourth generation software development tools in a real-life. A project involving system design. Prerequisite: MIS 309/ CIS 320.

MKT (Marketing)

MKT 305 Principles of Marketing Lec. 3./Credit 3.
Analysis of the problems involved in the operations of marketing institutions with emphasis on a micro approach. Topics include the design of channels of distribution, pricing, and promotion of goods and services.

MKT 307 Retail Management Lec. 3./Credit 3.
Examination of the role and significance of retailing institutions in the marketing of goods and services. Management of critical functions of retailing such as pricing, inventory, promotion, and merchandising is examined in detail. Prerequisite: MKT 305 Junior standing.

MKT 311 Consumer Behavior Lec. 3./Credit 3.
Examination of consumer behavior in the marketplace. Particular attention is given to economic influences as well as anthropological, psychological, and sociological influences affecting the consumer. Prerequisite: MKT 305 and Junior standing.

MKT 328 Sales Management Lec. 3./Credit 3.
The modern sales organization; selling problems of manufacturers, wholesalers, and retailers; management of the sales force. Prerequisites: MKT 305 and Junior standing.

MKT 360 Cooperative Education/internship Credit 3-9.
Co-ops and internships are on-the-job experiences in the area of marketing in business or government to serve as a laboratory for integrating the theoretical with practical experiences. Co-ops are for a six-month duration and worth up to 9 credits, whereas internships are for summer employment and worth up to 3 credits. Students may arrange for co-ops or internships in their junior and senior years. Prerequisite: Permission of the department chairperson.

MKT 411 International Marketing Lec. 3./Credit 3.
Explores the international dimensions of marketing. Students gain familiarity with the formulation of marketing strategies, as decisions and problems that arise in international marketing. Students learn how to deal with the comprehensive and integrative aspects of international marketing. Prerequisites: MKT 305 and Junior standing.

MKT 417 Advertising Management Lec. 3./Credit 3.
Examines the nature and role of advertising as a major promotional function in Marketing. Management of the major functions, such as selection of creative promotion strategies, advertising themes, media selection, physical production and campaign implementation are examined in detail. Prerequisites: MKT 305 and Junior standing.

MKT 427 Marketing Management Lec. 3./Credit 3.
An examination of the major marketing decisions facing the firm. Specific decision areas investigated include; market opportunity determination, product policies, channel management, promotion management, and pricing determination. Also, environmental, social, and legal factors that affect management decision making and the firm are discussed. Problems and cases are employed. Prerequisites: Senior standing and successful completion of MKT 305, MKT 311, MKT 328, MKT 428 and all core business courses.

MKT 428 Marketing Research and Analysis Lec. 3./Credit 3.
An examination of an important tool of analysis for both profit and nonprofit organizations. Different research techniques and various methods of data analysis are examined; also, how data and findings are employed in the formulation of marketing policies and strategies. Prerequisites MGT 215-216 (JAC 330 or JAC 420 for Non-business majors), MKT 305 and Senior standing.

MKT 444 Special Topics in Marketing Lec. 3./Credit 3.
An examination of marketing related topics such as: the use of social media in marketing, political marketing, entertainment marketing, subliminal marketing, service marketing, sports marketing, etc. Prerequisites: MKT 305 and Junior standing.

MKT 495 Independent Study or Research Lec. 3./Credit 3.
An opportunity for independent study or research with guidance of faculty advisor. Prerequisites: Senior standing, consent of instructor, and approval of chairperson.

MRT (Music Recording Technology)

MRT 225 Introduction to Audio Recording I Lec. 3./Credit 3.
Study of the basic techniques employed in recording, processing, storing, capturing, and manipulating sound. Practical experience in the preparation of master files, microphone types, basic console functions, acoustics, analogue to digital technology, mic preamplification, gain staging, and signal flow. Prerequisite: None. Open to all students.

MRT 226 Audio Recording II Lec. 2./Credit 2.
The creative application of using a digital audio workstation and digital recording including theory, psychoacoustics, console operation, noise reduction and analysis of associated equipment. Procedures include recording audio, midi tracks, rhythm tracks. Overdubbing. MIDI instruments, quantizing, and sequencing. Prerequisite: MRT 225.

MRT 325 Audio Engineering I Lec. 2./Credit 2.
An application of microphone placement/patterns, recording and monitoring systems. Principles of equalization, limiting, echo, and sound reinforcement. Prerequisite: Advance standing in music, MRT 225-226, and permission of instructor.

MRT 326 Audio Engineering I I Lec. 2./Credit 2.
Further study of microphone placement/patterns, recording, and monitoring systems and techniques with an introduction to ID3 Tags and metadata. Prerequisite: MRT 325.

MRT 327 Electronic Music Synthesizers and Computers
Lec. 2./Credit 2.
A survey course which investigates relevant aspects of electronic/computer music history, styles, and compositional techniques. Items to be discussed include the MIDI protocol, sequencers, analog and digital sound synthesis, and computer-aided scoring. Prerequisites: MUS 119-121, 120-122, 211-212, 222-233.

MRT 425 Advanced Audio Recording Techniques I
Lec. 2./Credit 2.
A study of multitracking recording and mixdown techniques with a focus on signal processing, delay, equalization, variable gain amplifiers, plugins, and reverb. Prerequisite: MRT/MET 326. Majors only.

MRT 426 Advanced Audio Recording Techniques II
Lec. 2./Credit 2.
Advanced application of outboard gear and patch bay configurations. Digital reverb devices and delay systems. The use of two-track editing, storage, mastering and pressing processes are explained. Theory and practice of professional recording equipment utilizing digital electronics. Design, construction, and operation of automation remix memory consoles. Theory of data coding and data storage. Prerequisite: MRT425, Majors only.

MRT 427 Recording Workshop I Lec. 2./Credit 2.
Explores studio maintenance and the theory and function of audio electronics with emphasis on the use of test equipment, reading schematic diagrams, alignment, troubleshooting, and soldering techniques. A comprehensive study of the background, organization, legal and technical development of the modern recording company and the record industry. Prerequisite: MRT/MET 426, Majors only.

MRT 429 Recording Studio Internship Trn./Credit 4.
Practical experience in audio recording under the supervision of an off-campus professional studio. Prerequisite: Completion of all music and engineering courses through the third year. Majors only.

MSC (Military Science - Army)

MSC 101 Leadership and Personal Development
Lec. 1./Lab 1.5./Credit 1.
Introduces cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as time management, physical fitness, and stress management relate to leadership, officership, and Army operations. Focus is placed on developing basic knowledge and comprehension of Army Leadership Dimensions while gaining a big picture understanding of the ROTC program.

MSC 102 Introduction to Tactical Leadership
Lec. 1./Lab 1.5./Credit 1.
Overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback and using effective writing skills. Cadets explore dimensions of leadership values, attributes, skills and actions in the context of practical, hands-on, and interactive exercises. Focus is placed on the building of stronger relationships among cadets through common experience and practical interaction.

MSC 201 Innovative Team Leadership
Lec. 2./Lab 1.5./Credit 2.
Explores the dimensions of creative and innovative tactical leadership strategies and styles by studying historical case studies and engaging in interactive student exercises. Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises. Focus is on continued development of the knowledge of leadership values and attributes through an understanding of rank, uniform, customs, and courtesies.

MSC 202 Foundations of Tactical Leadership
Lec. 2./Lab 1.5./Credit 2.
Examines the challenges of leading teams in the complex contemporary operating environment. This course highlights dimensions of the cross-cultural challenges of leadership in a constantly changing world and applies these to practical Army leadership tasks and situations. Focus is on developing greater self awareness as cadets practice communication and team building skills.

MSC 301 Adaptive Team Leadership
Lec. 3./.Lab 1.5./Credit 3.
Provides challenging scenarios related to small unit tactical operations to develop self awareness and critical thinking skills as well as systematic and specific feedback on leadership abilities. Focus is on integrating the principles and practices of effective leadership, military operations, and personal development in order to adequately prepare cadets for the summer Leader Development and Assessment Course (LDAC).

MSC 302 Leadership in Changing Environments
Lec. 3./Lab 1.5./Credit 3.

Uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Reviews aspects of combat, stability, and support operations. Requires cadets to conduct military briefings and develop proficiency in garrison operation orders. Focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in the contemporary operating environment.

MSC 401 Developing Adaptive Leaders
Lec. 3./Lab 1.5/Credit 3.

Develops cadet proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing feedback to subordinates. Requires cadets to assess risk, make ethical decisions, and lead fellow ROTC cadets. Provides lessons on military justice and personnel processes to prepare cadets for the transition to Army officers. Focus is on analyzing, evaluating, and instructing cadets at lower levels and preparing for the first unit of assignment.

MSC 402 Leadership in a Complex World
Lec. 3./Lab 1.5./Credit 3.

Explores the dynamics of leading in the complex situations of current military operations in the contemporary operating environment. Examines differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. Focus is on preparing cadets for their first unit of assignment using case studies, scenarios, and "What Now, Lieutenant?" exercises.

MSD (Medical Science - Graduate)

MSD 601-602 Health Professions I-II Lec. 9./Credit 3.

This course is designed to examine the factors related to the medical school admissions process. Focus placed on the mechanics of applying to medical school, understanding the admissions criteria, self-assessment as a medical school applicant, and preparation for becoming a competitive applicant. The course is designed to assist students in evaluating themselves as learners and to structure class work and assignments, which will provide the opportunities for employing strategies and techniques for becoming more organized, active learners. Seminar topics on the Problem Based Learning Curriculum, medical ethics, model thinking, DAT perceptional test, quantitative skills, career development, the application process, financing medical school and using the internet. In the second semester students will also examine, in detail, medical school admissions policies, as well as factors related to medical education including: curriculum, grading and promotion practices, support services, and medical specialty fields.

MSD 611-612 Pre-Medical Biology I-II Lec. 6./Credit 4.

Pre-Medical Biology focuses upon the biology topics listed in the AAMC Student Manual for the MCAT. This course is designed to help the student prepare for the MCAT/DAT and Medical/Dental School by practicing standard problem solving methods and techniques needed to specifically handle the passage format of the MCAT. Emphasis is placed on sharpening problem solving skills and increasing the student's knowledge base.

MSD 621-622 Pre-Medical Chemistry I-II Lec. 6./Credit 4.

Pre-Medical Chemistry I focuses upon the inorganic chemistry and atomic physics topics listed in the AAMC Student Manual for the MCAT. Pre-Medical Chemistry II focuses upon the organic chemistry topics. This course is designed to help the student prepare for the MCAT/DAT and Medical / Dental School by practicing standard problem solving methods and techniques needed to specifically handle the passage format of the MCAT. Emphasis is placed on sharpening problem solving skills and increasing the student's knowledge base.

MSD 641 Pre-Medical Physics Lec. 4./Credit 3.

Pre-Medical Physics focuses upon the physics topics listed in the AAMC Student Manual for the MCAT. This course is designed to help the student prepare for the MCAT/DAT and Medical / Dental School by practicing standard problem solving methods and techniques needed to specifically handle the passage format of the MCAT. Mathematical estimation and test taking techniques are also emphasized. Emphasis is placed on sharpening problem solving skills and increasing the student's knowledge base.

MSD 651-652 BioMedical Chemistry I-II Lec. 6./Credit 4.

The concepts and principles of human metabolism are systematically developed, beginning with protein structure and enzyme function and concluding with integration of metabolic processes and the principles of nutritional biochemistry. Throughout the course, biochemical concepts are correlated with the metabolic basis of disease processes and the latest applications of biochemical principles in medicine.

MSD 655 Medical Physiology Lec. 6./Credit 4.

Medical Physiology focuses upon the cell membrane, muscle, cardiovascular, renal, respiratory, gastrointestinal, endocrine and reproductive aspects of human physiology. Clinical correlations and computer simulations of laboratory experiments are included in the lectures.

MSD 662 Human Immunology and Virology
Lec. 6./Credit 4.

This course provides a comprehensive overview of basic immunology beginning with the specific interactions of target cells and T cells that are regulated by the MHC molecule and peptide antigens on the target cell and the antigen specific T Cell Receptor. The course will also cover antigen non-specific mechanisms of host defense and topics of clinical relevance, such as microbial immunity, allergy, autoimmunity, tumor immunity, congenital and aids, transplantation immunology and aging.

MSD 665 Medical Molecular and Cellular Biology
Lec. 6./Credit 4.
This course provides a foundation in molecular biology, cell biology, and genetics for medicine. The first part of the course develops an understanding of the important methodologies and applications of molecular biology to medicine. The second part emphasizes concepts and methodologies of cell biology and how they relate to medical practice. The last third part develops the concepts and ideas of genetics and how an appreciation of genetics influences our understanding and practice of medicine.

MSD 668 Medical Histology Lec. 6./Credit 4.
A comprehensive human microanatomy course, Medical Histology relates the structural organization of cells, tissues, and organs to their function. The course provides a basic understanding of how disease processes can affect the structure and function of cells, tissues and organs. Also included in the course is neuroanatomy.

MSD 702 Masters Comprehensive Examination Credit 1.
A comprehensive evaluation of second year coursework and critical thinking skills. A grade of B or higher is required to pass this examination.

MUE (Music Education)

MUE 201 Percussion Methods Lec. 1./Lab 1./Credit 1.
A concentrated study of the Percussion family. Emphasis on the history, construction, playing procedures, methodology, materials, and repertoire for teaching beginning, intermediate, and advanced band classes. Proficiency on a variety of percussion instruments is required. Prerequisites: MUS 119-121 and MUS 120-122 should be taken in sequence.

MUE 202 String Methods Lec. 1./Lab 1./Credit 1.
A concentrated study of the String family with emphasis on the history, construction, playing procedures, methodology, materials, and repertoire for teaching beginning, intermediate, and advanced orchestra classes. Proficiency on a variety of string instruments is required (violin, viola, cello, string bass, and guitar). Prerequisites: MUS 119-121 and MUS 120-122 should be taken in sequence.

MUE 203 Brass Methods Lec. 1./Lab 1./Credit 1.
Concentrated study of the brass family with emphasis on history, construction, playing procedures, methodology, teaching materials, and repertoire for teaching beginning, intermediate and advanced band classes. Proficiency on each brass instrument is required (trumpet, horn, trombone, baritone horn and tuba). Prerequisites: MUS 119-121 and MUS 120-122 should be taken in sequence.

MUE 204 Woodwind Methods Lec. 1./Lab 1./Credit 1.
Concentrated study of the woodwind family with emphasis on history, construction, playing procedures, methodology, teaching materials, and repertoire for teaching beginning, intermediate and advanced band-orchestra classes. Proficiency on each wind instrument is required (flute, clarinet, saxophone, oboe and bassoon). Prerequisites: MUS 119-121 and MUS 120-122 should be taken in sequence.

MUE 205 Vocal Methods Lec. 1./Lab 1./Credit 1.
Concentrated study of the voice emphasizing techniques in vocal production, vocal diction, breathing, and breath support while developing an understanding of vocal anatomy and good vocal health. Use of repertoire selected from diverse body of vocal music. Exposure to teaching materials and methodology for teaching singing. Prerequisites: MUS 119-121 and MUS 120-122 should be taken in sequence.

MUE 206 Piano Methods Lec. 1./Lab 1./Credit 1.
A study of methods and materials relevant to the teaching of group and individual piano instruction as well as the art of accompanying. Practical experiences will be provided for each component of this course through the use of piano laboratory for teaching and teacher studios and recital programs. Prerequisites: MUS 119-121 and MUS 120-122 should be taken in sequence.

MUE 207 Computer Literacy for Musicians
Lec. 3./Credit 3.
A survey of computer instruction, software, and applications that are applicable and available for the music educator. It will focus on the function of computer assistance in the development of music programs, literature, and a host of general music concepts. Prerequisites: MUS 119-121 and MUS 120-122 should be taken in sequence.

MUE 302 Basic Conducting Lec. 2./Lab 1./Credit 2.
Experiences in the fundamentals of baton technique and score reading. A brief survey of ethnically diverse symphonic and choral literature is provided. Prerequisites: MUS 119-121, MUS 120-122, and MUS 211-212 should be taken in sequence.

MUE 303 Advanced Instrumental Conducting
Lec. 3./Lab 2./Credit 2.
This course is designed to provide experiences in advanced instrumental conducting. Emphasis will focus on score study, audition development, baton technique, and non-verbal communication from the podium. Interpretation of ethnically diverse symphonic and band literature. The organization and management of an instrumental ensemble will also be examined. Prerequisites: PIA 103-104-203-204 (or PIA 105-106-205-206), MUS 212, MUE 302, MUS 311.

MUE 304 Advanced Choral Conducting
Lec. 3./Lab 2./Credit 2.
Experiences for voice and piano students in advanced choral conducting techniques. Exposure to ethnically diverse choral and orchestral literature. Development of style, baton and hand technique, and program. Prerequisites: PIA 103-104-203-204 (or PIA 105-106-205-206) for Voice Majors, VOI 103-104-203-204 (VOI 105-106-205-206) for Piano and Organ Majors, MUS 212, MUE.302, MUS 311.

MUE 318 Arranging and Orchestration
Lec. 3./Lab 2./Credit 2.
This course is designed to provide learning experiences in fundamental writing for various instrumental and vocal ensembles. Emphasis is placed on the combining of orchestral colors, scoring for large ensembles, and providing arrangements that may be used by other University ensembles. Prerequisites: PIA 103104-203-204 (or PIA 105-106-205-206) for Non-Keyboard Majors, VOI 103-104-203-204 (VOI 105-106-205-206) for Piano and Organ Majors, MUS 212, MUS 311, MUE 207.

MUE 416 Choral Techniques **Lec. 3./Lab 2./Credit 2.**
This course is designed for the voice and piano major during the fourth year of study. An introduction of various fundamental techniques used in establishing choral libraries, programs, and rehearsal practices. It will also survey and analyze techniques used in the major choral, show, madrigal, and gospel choirs. Prerequisites: MUS 212, PIA 103-104-203-204 (or PIA 105-106-205-206) for Voice Majors, VOI 103-104-203-204 (VOI 105-106-205-206) for Piano and Organ Majors, MUS 305-306, MUS 311, MUE 302, and MUE 304.

MUE 417 Marching Band Techniques
Lec. 3./Lab 2./Credit 2.
This course is designed to provide instruction in the organization and administration of a Marching Band. Emphasis shall be on show design, charting of drills, formations, music selections, marching band styles, and instrumental placement. Prerequisites: MUS 212, PIA 103-104-203-204 (or PIA 105-106-205-206), MUS 305-306, MUS 311, MUE 302, and MUE 303.

MUE 418 Survey of Orchestra Techniques
Lec. 2./Lab 2./Credit 2.
Application of essential teaching techniques for string instruments. Study of ethnically diverse music with emphasis on listening, score reading, style and analysis, historical practices and procedures, and the technical problems of performance within the orchestra. Prerequisites: MUS 212, PIA 103-104-203-204 (or PIA 105-106-205-206), MUS 305-306, MUS 311, MUE 302, and MUE 303.

MUE (Music Education – Undergraduate/ Graduate)

MUE 530 Teaching Music in Elementary Schools
Lec. 3./Lab 2./Credit 3.
Introduction to teaching music on the elementary level with an emphasis on historical background, ethnically diverse music, present practices, and major issues. Guidance in the formulation of principles and objectives related to the needs of the teacher of music. Study of instructional methods, materials and resources including media, computers, and classroom observations. Prerequisites: PIA 103-104-203-204 (or PIA 105-106-205-206) for Non-Keyboard Majors, VOI 103-104-203-204 (VOI 105-106-205-206) for Piano and Organ Majors, MUS 201-202-203-204-205/206, MUE 302, MUS 303/304, MUS 212, MUS 305-306, MUS 311, MUS 401, MUE 318.

MUE 535 Teaching Music in Secondary Schools
Lec. 3./Credit 3.
Study of organization, administration, and supervision of the junior and senior high school music program. Guidance in the formulation of principles and objectives related to the needs of junior and senior high school music teachers. A study of ethnically diverse music, instructional methods, materials, and resources. Prerequisites: PIA 103-104203-204 (or PIA 105-106-205-206) for Non-Keyboard Majors, VOI 103-104-203-204 (VOI 105-106-205-206) for Piano and Organ Majors, MUS 201-202-203-204-205/206, MUE 302, MUE 303/304, MUS 212, MUS 305-306, MUS 311, MUS 401,
MUE 318, MUE 530.

MUE - Music Education Graduate

MUE 601 History and Philosophy of Music Education
Lec. 3./Credit 3.
A study of the history of music education and other facts basic to the development of a philosophy of music education. Survey of various philosophers and schools of thought in music education. Emphasis on school music in the United States.

MUE 602 Teaching Music in Elementary School
Lec. 3./Credit 3.
For prospective teachers and teachers in service who are concerned with critical analysis and appraisal of techniques in current use in elementary school music. Comprehensive study of the elementary music program including new techniques, materials and literature.

MUE 603 Teaching Music in the Secondary School
Lec. 3./Credit 3.
Consideration given to techniques of selecting and organizing course materials and in planning teaching and resource units.

MUE 604 Current Trends in Music Education
Lec. 3./Credit 3.
Issues, developments, materials, teaching strategies, research relevant to contemporary school music.

MUE 630 Teaching Music in Secondary Schools
Lec. 3./Credit 3.
Study of organization, administration, and supervision of the junior and senior high school music program. Guidance in the formulation of principles and objectives related to the needs of junior and senior high school music teachers. A study of ethnically diverse music, instructional methods, materials, and resources. Prerequisites: PIA 103-104-203-204 (or PIA 105-106-205-206) for Non-Keyboard Majors, VOI 103-104-203-204 (VOI 105-106-205-206) for Piano and Organ Majors, MUS 201-202-203-204-205/206, MUE 302, MUE 303/304, MUS 212, MUS 305-306, MUS 311, MUS 401, MUE 318, MUE 530.

MUS (Music)

MUS 000 Theory Review **Lab 2./Credit 1.**
Developmental instruction in aspects of the Theory Comprehensive examination. Music majors who are unsuccessful in the first attempt at the Theory Comprehensive examination must enroll before attempting to retake the examination.
MUS 113 Music for Early Childhood

Education Majors (1) **Lec. 3./Credit 3.**
Essentials of music to enable students to carry on music activities in classroom. Functional piano techniques including melody harmonization, music reading and improvisation; notation, basic rhythms, and sight-singing.

MUS 119-120 Aural Theory and Keyboard Lec. 2./Credit 1.
Sight-singing (solfege) and keyboard drill in playing scales (all modes) and simple cadences progressing to more complicated progressions in all keys. Must pass MUS 119 to proceed to MUS 120.

MUS 121-122 Written Theory **Lec. 3./Credit 2.**
Review of fundamentals. The study of single-voice, two and three-voice writing, through analysis and written exercises leading to four-voice harmonic writing. Study of Chord progressions involving primary triads, secondary triads, and the dominant seventh chords. Must pass MUS 121 to proceed to MUS 122.

MUS 131 Music for Recreation Students (2)
Lec. 2./Credit 2.
For students who plan to become playground workers and supervisors of community or recreation centers. Provides experiences in singing, conducting, and introduction to melody harmonization at piano and on other recreation instruments.

MUS 200 Introduction to Music **Lec. 3./Credit 3.**
Survey of musical literature through the ages. Development of music in relation to other arts. Influence of sociological, economic, political, geographical, literary, and other factors upon music-illustrated by musical and artistic examples through recordings and other audio-visual devices.

MUS 201 Music of African-Americans **Lec. 3./Credit 3.**
Experience African-American musical developments from the onset of western African music culture, the middle passage to all forms of music in America from the spiritual to current trends in music. The course is open to all students.

MUS 202 Music of African-Americans II, History of Jazz
Lec. 3./Credit 3.
In-depth study of jazz from the musical, historical and social points of view. Open to all students.

MUS 204 Survey of Music History and Literature
Lec. 2./Credit 2.
A survey of musical style and literature from Greek antiquity to the Twentieth Century.

MUS 205 History of Music I **Lec. 3./Credit 3.**
The study of music of non-Western cultures, of plainsong and the emergence of polyphony in the Middle Ages, and of the polyphonic music of the Renaissance with critical analysis of literature.

MUS 210 Teaching Music in the Elementary School
Lec. 3./Credit 3.
Designed to equip the prospective elementary school teacher who must carry forth the classroom music program with fundamental skills.

MUS 211-212 Advanced Harmony **Lec. 3./Credit 2.**
Continuation of harmony, to include modulation, seventh chords, and altered chords. Harmonic and structural analysis. Investigation of contemporary harmonic materials. Must pass MUS 211 to proceed to MUS 212.

MUS 212J Jazz Theory **Lec. 3./Lab 1./Credit 3.**
Practice in writing music fundamentals, with emphasis on ear training. Work in interval and chord recognition, extensive drills in melodic and harmonic dictation. Use of chords of the ninth, eleventh and thirteenth and placing special emphasis on voice leading and chord sonorities.

MUS 222-233 Advanced Harmony Labs **Lab 2./Credit 1.**
Must pass MUS 222 to proceed to MUS 233.

MUS 305 History of Music II **Lec. 3./Credit 3.**
Period concentration on Baroque and Classical history and Literature with critical analysis of literature.

MUS 306 History of Music III **Lec. 3./Credit 3.**
Period concentration of Romantic, post-Romantic, and 20th Century history and literature with critical analysis of literature.

MUS 309-310 Jazz Improvisation **Lec. 2./Credit 2.**
Principles of mastering improvisational skills based on listening to and transcribing recordings and live performances of jazz artists. Also development of spontaneity in improvisation through contemporary compositional devices.

MUS 311 Contrapuntal Theory and Practice
Lec. 2./Lab 1./Credit 2.
Analysis of contrapuntal music from sixteenth through eighteenth centuries. Study of principles of rhythm and dissonance treatment found in both strict and free styles. Writing of two-voice inventions in free (eighteenth century) style. Pre-requisites: MUS 119121, 120-122, 211-212, 222-233.

MUS 319 Jazz Arranging and Orchestration
Lec. 2./Lab 1./Credit 2.
Designed to provide learning experience in writing for various instrumental combinations in jazz, rhythm and blues, jazz-rock and other "popular" music idioms. Attention will be focused on combining orchestral colors; chord scoring, creating full arrangements and providing literature to be performed by the Jazz Ensemble, exposure to the latest in film and television scoring techniques, as well as scoring for dramatic works. Pre-requisites: MUS 119-121, 120-122, 211-212, 222-233.

MUS 401 20th-Century Theory/History **Lec. 2./Credit 2.**
A comprehensive course involving the acquisition and application of the materials of 20th-Century Music. Both writing and analytical skills are emphasized. Pre-Requisites: MUS 119-121, 120-122, 211-212, 222-233.

MUS 402 Jazz Pedagogy **Lec. 2./Lab 1./Credit 2.**
The Pedagogy course is designed to develop skills in the teaching of jazz in all of its facets and dimensions. This will be accomplished by exposing students to a variety of approaches to materials, techniques and philosophies, and by providing the atmosphere conductive to learning. Taken with consent of instructor.

MUS 405-406 Composition **Lec. 2./Credit 2.**
Creative writing. Aesthetic, stylistic and formal problems in composition. Taken with consent of instructor.

MUS 407-408 Business of Music **Lec. 3./Credit 3.**
A comprehensive two-semester course designed to provide an understanding of business practices as related to the music industry. Topics covered include song writing, publishing, copyright, music licensing, union and guilds, agents, managers, attorneys, artists' management, music merchandising, concert promotion, arts administration, the record industry, music in broadcasting and film, and career planning and development.

MUS 409 Jazz Composition/Analysis **Lec. 3./Credit 3.**
Compositional skills are developed through study, practice, experimentation, and application, resulting in the writing for every conceivable medium and combination of any size. Through analysis, a student learns to analyze, compose, and place in perspective the works of the great jazz composers, arrangers, and players. Taken with consent of instructor.

MUS 415 Voice Pedagogy **Lec. 2./Credit 2.**
A physiological and psychological study of the voice dealing with techniques in vocal production such as breathing, diction, phonation, registers, and resonance. A study of vocal literature of the 18th, 19th, and 20th centuries; and a history of singers, their repertoire, and vocal problems from the beginning of scientific study of vocal production.

MUS 416 Piano Pedagogy **Lec. 2./Lab 1./Credit 2.**
Study of evolution and mechanism of piano as basis for selection and care of the instrument, and development of logical principles of piano technique. Teaching methods for class and individual instruction; examination of teaching repertoire in all styles and periods. Required for Piano majors.

MUS 444-445 Seminar **Sem. 2./Credit 2.**
Special topics in music history, theory, and/or performance literature and practice. Individual research and reports.

MUS - Music Undergraduate/Graduate

MUS 500 Seminar **Lec. 2./Credit 3.**
Special topics in music history, theory, and/or performance practice. Individual research and reports.

MUS 503-504 Minor Performance **Stu. 2./Credit 2.**
Minor Piano. Minor Organ. Minor Voice. Minor Orchestral Instruments.

MUS 521 Jazz Experience **Lec. 3./Credit 3.**
Provides concentrated musical experiences related to creating and performing music in the jazz idiom. Will include music of various cultures, thereby focusing upon the unique traits of jazz and characteristics which jazz shares with other types of musical expression. Open to music majors beginning the sophomore year. Enrollment of non-music majors permitted on approval of the instructor. Prerequisite: Music 122.

NAV (Naval Science)

NAV 101 Introduction to Naval Science **Lec. 2./Credit 2.**
A general introduction to seapower and the naval service with particular emphasis on the mission, organization, regulations, and broad warfare components of the Navy. Course also covers the basic tenets of naval courtesy and customs, discipline, naval leadership, and ship's nomenclature. The student is made cognizant of the major challenges facing today's naval officer, especially in the areas of equal opportunity and drug abuse.

NAV 102/HIS 205 Seapower and Maritime Affairs **Lec. 3./Credit 3.**
This course traces the evolution of the major world naval and maritime nations as they are affected by changes in technology and usage in the context of their political, economic, and diplomatic relations. Special emphasis is placed on the role which American naval and maritime affairs played in the rivalries of the great world powers during the colonial period, the spread of revolutionary movements, and the era of civil and international conflicts in the 19th and 20th centuries. The course will explore the interrelationship of major political, economic, and diplomatic trends with the naval conflicts and maritime rivalries of major world societies during the modern period.

NAV 111-112 Naval Science Lab **Lab 2./Credit 1.**
These two laboratories teach basic military formations, movements, courtesies, and honors. Includes drill, personnel inspections, physical conditioning, and swimming.

NAV 201 Naval Engineering **Lec. 3./Credit 3.**
A course designed to familiarize the student with the types, structure, and purpose of naval ships. Ship compartmentation, propulsion systems, auxiliary power systems, interior communications and ship control are included. Elements of ship design and ship stability characteristics are examined.

NAV 202 Naval Weapons **Lec. 3./Credit 3.**
This course provides an introduction to the theory and practice of operation of naval weapons systems. It includes coverage of types of weapons and fire control systems, capabilities and limitations, theory of target acquisition, identification and tracking, trajectory principles, and basics of naval ordnance.

NAV 211-212 Naval Science Lab **Lab 2./Credit 1.**
These laboratories teach military formations, movements and commands, with a growing emphasis on active leadership roles. Health and personal hygiene are emphasized. Topics include weight control, dieting, hygiene habits, dental care, drug and alcohol abuse, and sexually transmitted diseases, with continued emphasis on physical conditioning and swimming.

NAV 301 Coastal Piloting and Celestial Navigation
Lec. 3./Credit 3.
A comprehensive study of the theory, principles, and procedures of ship navigation, movement and employment. Topics include nautical chart interpretation, mathematical analysis, spherical triangulation and practical work involving sight reduction of navigational celestial bodies, use of the marine sextant, and the use of nautical publications. Prerequisite: Completion of basic Naval Science curriculum or the Naval Science Institute.

NAV 302 Naval Tactics and Operations Lec. 3./Credit 3.
A detailed study of the theory and use of naval tactics as it applies to current naval strategy. Topics include studies of communications, sonar theory, radar use, and ship formation dispositions. Relative motion, maneuvering boards and tactical plots, navigation rules of the road, lights and fog signals, navigational aids and the study of electronic navigation systems (including inertial navigational systems). Prerequisite: NAV 301.

NAV 310 Evolution of Warfare Lec. 3./Credit 3.
This course explores the form of warfare employed by great people in history in order to formulate the sense of historical flow or continuity in the evolution of warfare, to develop a basic sense of strategy, to demonstrate alternative military actions, and to explore the impact of historical precedent on military thought and actions. Prerequisite: Completion of the basic Naval Science curriculum or the Naval Science Institute.

NAV 311-312 Naval Science Lab Lab 2./Credit 1.
These laboratories emphasize cruise preparation. The student is prepared to adapt to living conditions aboard a naval vessel, with emphasis on safety education and first aid. Topics: artificial respiration, proper application of bandages, heat exhaustion, choking, burns, fractures, and shock.

NAV 401-402 Leadership and Management I-II
Lec. 2./Credit 2.
Two courses stressing the experiential approach to learning the principles of leadership and management. The student develops skills in the areas of communication, counseling, control, direction, management, and leadership through active guided participation in Navy-based case studies, experiential exercises and situational problems. Management theory, professional responsibility, and the Navy Human Resources Management programs are emphasized. Must be taken sequentially.

NAV 410 Amphibious Warfare Lec. 3./Credit 3.
his course defines the concept of amphibious warfare, explores its doctrinal origins, and traces the evolutions as elements of naval policy during the 20th century. Prerequisite: NAV 310.

NAV 411-412 Naval Science Lab Lab 2./Credit 1.
These laboratories emphasize practical leadership skills. The student is given a position of leadership and graded on performance. Includes security precautions, extensive sailing opportunities. Final physical training and swimming test must be passed for successful completion of the NROTC program and commission in the Navy or Marine Corps.

NUR (Nursing)

NUR 105 Introduction to the Nursing Profession
Lec. 2./Credit 2.
Introduction to concepts related to the individual as an open system; bio-psycho-socio-cultural-political needs; wellness-illness continuum; growth and development; ego defense mechanisms and the research process for use of the nursing process to meet the needs of well individual clients. Study of the past, present and emerging role of the nurse and the relationship to social changes affecting the nursing profession. Orientation to the philosophy and conceptual framework of the baccalaureate nursing curriculum. Prerequisite: None.

NUR 202 Nutrition and Dietetics Lec. 2./Credit 2.
Principles of nutrition in health and illness; practical application of these principles and consideration of individual differences in nutritional requirements. Prerequisite: None.

NUR 215 Foundations of Nursing Lec. 3./Credit 3.
This course focuses on assisting persons of all ages to meet their basic needs. Students will concentrate on concepts of the nursing process, health teaching, relationship-centered communication, ethical-legal issues and caring. The integration of concepts related to mental health, nutrition, pharmacology, and pathophysiology will begin in this course Students also will begin the process of developing health care skills for self and others. Prerequisites: All pre-Professional courses. Corequisite: NUR 216. For majors only.

NUR 216 Foundations of Nursing: Practicum
Lab. 9./Credit 3.
Clinical application of the nursing process, use of therapeutic communication, health teaching and selected nursing techniques in meeting basic needs of self and others in the community. Students will be expected to actively participate in the design and implementation of a life-long, personal, self-care plan. It is expected that each student's learning experiences will be unique, integrating interests, community resources and course requirements. Corequisite: NUR 215. For majors only.

NUR 217 Health Assessment Lec. 2./Lab 1./Credit 3.
Study of primary health care concepts as they relate to the biological, psychological, and sociocultural assessment of individuals and families in meeting basic needs of individuals in a multicultural society. Application of primary health care principles and techniques of data collection for the assessment of individuals and families in meeting basic needs of individuals in a multicultural society. Data are collected through the health history and physical examination to establish a database for the nursing process. Students will complete 15 hours of lab practice in this course. Prerequisite: BIO 224-225, CHE 101. For majors only.

NUR 220 Therapeutic Communications for Health Professional Lec. 3./Credit 3.
This is a multidisciplinary course offered spring and fall semesters for majors in the health disciplines. Provider communication roles, definitions of therapeutic communication, professional and nonprofessional communication patterns, stress and communication, as well as cultural, legal and ethical aspects of communication, will be explored. Nursing Elective Open to all majors.

NUR 221 Medical Terminology for Health Professionals Lec. 2./Credit 2.
A comprehensive learning experience which is self-paced and designed to assist students in health-care professions, achieve mastery level in the use of medical terminology. Students will use the scavenger hunt approach to find answers to questions in the workbook as well as gain experiences in computerized instruction and testing. Prerequisite: One semester of Anatomy or Physiology. Open to all majors.

NUR 222 Introduction to Health Law Lec. 3./Credit 3.
This course will explore the various legal issues that affect the health-care provider today. Emphasis on ethical dilemmas, confidential record management, living wills, power-of-attorney, organ donation and how to avoid litigation in the workplace will be discussed. Actual malpractice health-care cases and experts in the legal profession will be utilized. Nursing Elective Open to all majors.

NUR 223 Issues in Child Growth and Development for Health Professionals Lec. 3./Credit 3.
This course focuses on the role that theories and principles of growth and development play in the psychosocial, cognitive, and emotional development of infant, toddler, preschooler, school-aged child, and adolescent. The course is designed for all healthcare professionals who practice in all clinical areas and roles who wish to promote the understanding and adjustment of children and their families as they encounter events in the healthcare system. Using a developmental approach and application of theory into practice, emphasis will be on helping the child cope with and interpret both expected and stressful events in healthcare settings, utilizing age-appropriate strategies, such as effective communication and therapeutic play activities. Nursing Elective Open to all majors.

NUR 224 Cultural Assessment for Health Professionals Lec. 3./Credit 3.
This course examines the role that culture plays in the person's health-care practices, health care beliefs, and health care needs. The course is designed for all health care professionals who practice in all clinical areas and roles who wish to nourish awareness of, and sensitivity for , the cultural needs of clients and their families. Emphasis will be on health beliefs and practices manifested by people from different backgrounds who are members of various ethnic/cultural communities. Students will be given the opportunity to examine their own culture, beliefs, and attitudes in respect to health and illness. Nursing Elective Open to all majors.

NUR 225 Family Health: Women's Health in Contemporary Society Lec. 3./Credit 3.
This survey course will emphasize issues unique to the health of women. Particular emphasis will be placed on investigation of contemporary health problems of women with emphasis on health promotion and disease prevention strategies that women can employ. Students will investigate community resources available to support women's health and identification of situations where professional intervention is indicated. Topics such as the superwoman syndrome, stress management, substance abuse, reproductive issues, menopause, cosmetic surgery and domestic violence will be examined. Nursing Elective Open to all majors.

NUR 226 Family Health: Complementary Healthcare Practices Lec. 3./Credit 3.
This course will survey issues surrounding complementary or alternative healthcare practices within the context of the model of traditional health care. Use of complementary practices as means of consumer empowerment and participation in self care will be examined. Students will identify a wide variety of complementary methods of health care and discuss the risks and benefits of the methods. The place of complementary healthcare practices in contemporary healthcare will be investigated. Topics will include areas such as herbal and vitamin supplements, acupressure, magnetics, yoga, hypnosis, music therapy, relaxation techniques, energy fields and guided imagery. Nursing Elective Open to all majors.

NUR 230 Computations in Pharmacotherapeutics Laboratory Lab 3./Credit 1.
Application of basic mathematical skills and formulas related to computation of drug dosages to meet the needs of well and ill individual clients. Content includes calculation of oral, parenteral and pediatric dosages, conversion between the metric and Apothecaries' systems to implement the nursing process. Prerequisite: None. For majors only.

NUR 231 Alternative/Complementary Nutrition Therapies Seminar Lec. 3./Credit 3.
Fundamental health seminar related to alternative and complementary nutrition therapies. This course will survey the evaluation of health-care claims, mechanisms and literature search on a wide variety of unconventional nutrition therapies used for disease prevention and treatment. Special emphasis will be placed on wellness and health promotion through practical application of knowledge and problem-based learning projects. Nursing Elective – open to all majors. Prerequisite: None.

NUR 232 Food Additives Lec. 3./Credit 3.
This course will provide an evaluation of the chemical and physical nature of food additives. The course will survey the functions and effects on the chemical, structural, biological, and nutritional properties of foods. Upon completion of the course, the student will be able to describe the purpose of the various food additives, identify pros and cons of food additive usage, identify interactions with medications and describe current research relating to food additives and supplements. Nursing Elective – open to all majors. Prerequisite: None.

NUR 233 Concepts of Professional Nursing
Lec. 3./Credit 3.

A transition course for licensed practical nurses which covers concepts of professional nursing theoretical rationale for basic nursing interventions, application of basic mathematical skills, formulas and fundamentals of drug therapies. Study of the past, present and emerging role of the nurse and the relationship to social changes affecting the nursing profession. Orientation to the philosophy and conceptual framework of the baccalaureate nursing curriculum. Prerequisites: State licensure as a licensed practical nurse, All pre-professional courses. Corequisite: NUR 234.
For majors only.

NUR 233 Concepts of Professional Nursing: Practicum
Lab 9./Credit 3.

A practicum course which provides for clinical application of the nursing concepts as a science and a process. Corequisite NUR 233. For majors only.

NUR 299 Independent Study Ind. 3./Credit 3.

This course provides sophomore students with the opportunity to collaborate with a faculty member conducting ongoing research. An individual teaching-learning research contract specifies the amount of time, particular tasks and level required to earn the desired grade for the number of credits earned. Contracts must be negotiated during the first week of class. Nursing Elective Open to all majors.

NUR 300 Special Topics in Nursing Lec. 2./Credit 2.

A tutorial for the five major clinical nursing courses and the Professional Development seminar. Content for each section will be specific to the related nursing courses. The following section numbers correspond to the respective corequisite courses. Section 01 NUR 345, Section 02 NUR 355, Section 03 – NUR 455, Section 04 NUR 445, Section 05 – NUR 215, Section 06 HU-VETS, and Section 07 – NUR 419 (by permission only). Prerequisites: Same as major nursing or seminar course. Corresponding semester of major course offering. For majors only.

NUR 318 Concepts of Community Health Lec. 2./Credit 2.

Study of the community as a social system, the basic concepts of community health systems and epidemiology. Major focus is on the role of the nurse in the administration of community health care. Nursing Elective. Open to all majors.

NUR 319 Death and Society Lec. 3./Credit 3.

An interdisciplinary study of death from a biological-psychological-social-cultural-political point of view including attitudes toward death, definitions of death, causes, grief expressions, preparations for death, and death rituals in contemporary society. Nursing Elective – Open to all majors.

NUR 320 Scientific Writing for Health Professions
Lec. 3./Credit 3.

Specifically designed to enhance skills in critical thinking and appraisal of information needed in the communication of scientific data. Emphasis will be on the transdisciplinary use of technologies and informatics in healthcare environments. Nursing Elective Open to all majors.

NUR 321 Teaching for Health Professionals
Lec. 3./Credit 3.

Emphasis is on teaching-learning principles, evaluation of learning needs related to health, planning of learning activities, development of teaching materials, and evaluation of learning outcomes. Nursing Elective Open to all majors.

NUR 322 Human Sexuality: A Primer for Health Professionals Lec. 3./Credit 3.

This multidisciplinary course focuses on health awareness, understanding youth communication, and talking with youth about sex, drugs, and AIDS. Activities will assist in facilitating preteens and teenagers in becoming more aware of their values. The course is designed to be fun but informative. The content is appropriate for persons who are interested in educating either self and peers or others regarding sexual responsibilities and developing advocacy skills. Nursing Elective Open to all majors.

NUR 323 Multidisciplinary Approaches to Health Care Ethics Lec. 3./Credit 3.

This multidisciplinary course examines the shared ethical basis for the practice of nursing, physical therapy, pharmacy and speech and hearing therapy. Normative ethical theory is examined in relation to codes of ethics relevant to each of these areas of practice. In addition, historical and current codes of ethics for nursing, physical therapy, pharmacy and speech and hearing therapy will be examined to assess their impact and relevance for practice. Ethical issues will be examined and discussed in relation to ethical theory and the legal and ethical requirements for professional practice. The impact of knowledge development, culture, and worldview on ethical decision-making is addressed. Ethical frameworks for problem analysis and decision-making are explored. Ethics and public policy is addressed. Nursing Elective Open to all majors.

NUR 324 Contemporary Spirituality Lec. 2./Credit 2.

This course provides the forum for students to explore the meaning of spirituality in everyday living for self and how other individuals across the lifespan might exhibit their own spirituality. Emphasis will be on the contribution and perspectives that religion, history, art, health care and the behavioral sciences give to contemporary spirituality. The primary focus will be on the student's own critical reflection of therapeutic discourse in class, journaling, and the development of one's own concept of spirituality and its components. The concept of the impact of family and community will be discussed. Nursing Elective Open to all majors.

NUR 328 Nursing Informatics Lec.2./Credit 2.
Examine the critical appraisal and use of information technology in nursing practice in various healthcare settings. Students learn about core and supporting models and theories for nursing informatics as well as its foundation in science. They explore the use of information technology to support decisions that promote safety and quality in patient-centered care, and they assess concerns about protecting information and system integrity. Students engage in practical assignments through which they become familiar with various informatics-related functions and their impact on nurses in healthcare. They also summarize and reflect on their learning experiences. Prerequisites: Successful completion of all pre-professional general education courses, and all 100 and 200 level nursing courses. For majors only

NUR 340 Disaster Preparedness Lec. 3./Credit 3.
This course focuses on introducing the upper level nursing student to disaster preparedness and response as a member of the healthcare community. Emphasis will be placed on the team approach to participating in many aspects of a coordinated disaster plan and response. Nursing Elective. Open to all majors.

NUR 345 Adult Health Nursing I Lec. 4./Credit 4.
The major focus of this course is utilization of the nursing process in meeting the health care needs of adult clients experiencing medical-surgical interferences. The concept of forming partnerships that promote health in families, populations and communities will be emphasized. In this course students will focus on the concepts of multicultural, community-based health care, transdisciplinary health-care concepts, wellness program planning, and therapeutic communication. Prerequisites: Successful completion of all pre-professional general education courses, and all 100 and 200 level nursing courses. Corequisite: NUR 346. For majors only.

NUR 346 Adult Health Nursing I: Practicum Lab 12./Credit 4.
The application of nursing principles, for self and client care including therapeutic touch, therapeutic presence, and relaxation; assessment and development of wellness plans/programs; development and use of various teaching-learning materials; group dynamics and counseling techniques; participation in target group and/or community activities; and following families experiencing health alterations. Corequisite: NUR 345. For majors only.

NUR 350 Pathophysiology and Pharmacology Lec. 4./Credit 4.
This course uses a systematic conceptual approach in the study of Pathophysiology and Pharmacotherapeutics. Content focuses on alterations in adaptive processes which occur during illness throughout the lifespan, and which affect a human beings ability to function in society. The course also introduces pharmacodynamics, pharmacokinetics and pharmacotherapeutics of various classifications of medications as they relate to basic pathophysiology seen in each body system. Emphasis is on the nursing implications and patient education required for safe administration of each class. Students explore the role and responsibility of the registered nurse in administering and evaluating medications. Prerequisites: Successful completion of all pre-professional general education courses, and all 100 and 200 level nursing courses. For majors only.

NUR 355 Nursing Care of the Childbearing and Childrearing Family Lec. 4./Credit 4.
Major emphasis is on the developmental tasks of childbearing and childrearing families and children from infancy to adolescence. Major interferences and maladjustments will be addressed with emphasis on meeting the needs of the family and children along the wellness-illness continuum. Prerequisites: Successful completion of all pre-professional general education courses, and all 100 and 200 level nursing courses. Corequisite: NUR 356. For majors only.

NUR 356 Nursing Care of the Childbearing and Childrearing Family: Practicum Lab 12./Credit 4.
The application of nursing principles and utilization of the nursing process to meet the healthcare needs of the childbearing and childrearing family in a variety of health care settings. Students will use information technology, development and use of various teaching-learning materials, group dynamics, assessment and development of wellness plans and counseling techniques. Students will follow families experiencing health alterations. Corequisite: NUR 355. For majors only.

NUR 390 Nursing Internship: Practicum Lab 9./Credit 3.
Emphasis is on a supervised educational experience designed to facilitate beginning role transition of rising seniors in practicing nursing in tertiary health care systems. Opportunities are provided for the application of sound clinical judgment and critical thinking skills throughout the nursing process in the management of patient care; demonstration of understanding and competence in technical skills and procedures related to selected areas and the development of time management and delegation skills. Synthesis of theoretical knowledge with clinical along with knowledge from previous and concurrent courses is expected to be demonstrated. Prerequisite: Successful completion of all pre-professional general education courses, and all 100-300 level nursing courses. Summer term. For majors only.

NUR 399 Independent Study Ind 3./Credit 3.
This course provides junior students with the opportunity to collaborate with a faculty member conducting ongoing research. An individual teaching-learning research contract specifies the amount of time, particular tasks and level required to earn the desired grade for the number of credits earned. Contracts must be negotiated during the first week of class. Nursing Elective Open to all majors.

NUR 400 Major Health Issues and Problems of the Elderly Lec. 3./Credit 3.
Study of normal processes of aging. Exploration of major health problems. Discussion of communication techniques and approaches to promoting independence. Interaction with non-institutionalized elderly. Nursing Elective. Open to all majors.

NUR 418 Issues in Research Seminar Lec. 2./Credit 2.
Students will critique research in terms of its implications for nursing practice and health care policy. Opportunities will be provided to discuss ways to implement research findings in practice settings. A senior research project and paper will be required. Prerequisite: PSY 346 or MAT 205, successful completion of all 100 and 200 level courses, and NUR 345, 346 for beginning nursing students. For majors only.

NUR 419 Professional Development Seminar
Sem. 2./Credit 2.

Emphasis will be on basic organizational assessment, leadership and health-care management from the perspectives of voluntary agencies, health care provider organizations and service delivery. A synthesis course utilizing the nursing process in coordinating care for a variety of clients at various states along the wellnes-sillness continuum. Selected cases are used for developing the professional nurse's role in managing care to individuals, families and groups. Must be taken the semester of graduation. Successful completion of all 100, 200 and 300 level nursing courses. Terminal semester. For majors only.

NUR 442 Leadership and Management in Nursing
Lec. 2./Credit 2.

Investigation and analysis of theoretical and applied concepts of leadership and management principles of nursing in the delivery of healthcare to meet the basic needs of human beings, families, groups, and communities. Emphasis is placed on knowledge, skills and attitudes of the nurse leader/manager through skill building, communication, delegation, conflict resolution, staffing, resource allocation, risk management, evidenced based practice and quality improvement. This course focuses on the student nurse role in transitioning into nursing leadership roles and beginning nursing practice. Corequisites: Prerequisites: Successful completion of all pre-professional general education courses, and all 100-300 level nursing courses. Corequisite: NUR 443. For majors only.

NUR 443 Leadership and Management in Nursing
Lab 6/Credit 2.

This precepted experience is designed to promote transition into professional nursing practice. Emphasis is placed on collaboration with members of the health care team, application of leadership and management roles, apply critical thinking and ethical decision making in the delivery of safe and effective care. Utilize the nursing process in the evaluation of nursing care, allocation of resources while refining skills, knowledge and attitudes gained in prior nursing courses. Corequisites: NUR 442. Terminal semester. For majors only.

NUR 445 Community/Mental Health Nursing
Lec. 4./Credit 4.

Emphasis is on the etiology and control of major health problems, at risk populations, health policy, organizational leadership and management, and nursing research. Opportunities will be provided to investigate relationships between bio-psycho-sociocultural-political-spiritual-factors and the health of the community, and automated databases for epidemiologic and outcome evaluation purposes. Prerequisites: Successful completion of all 100-300-level nursing courses. Corequisite: NUR 446. For majors only.

NUR 446 Community/Mental Health Nursing: Practicum
Lab 12./Credit 4.

This course places major emphasis on early case finding and referral of individuals and groups for treatment and, when necessary, rehabilitation. The interface between hospitals, urgent care centers, adult care homes, and other governmental and private health care agencies will be explored. Refining the skills of assessment, care and collaborative professional skills of nurses will be expected. Corequisite: NUR 445. For majors only.

NUR 455 Adult Health Nursing II Lec. 4./Credit 4.

Focus is on the care of adult clients experiencing major complex and life threatening medical-surgical alterations in health utilizing the nursing process and related theories. Concepts of acute care, nursing research, decision making, and professional accountability are emphasized. Course content includes crisis interventions. Prerequisites: Successful completion of all 100-300 level nursing courses. Corequisite: NUR 456. For majors only.

NUR 456 Adult Health Nursing II: Practicum
Lab 12./Credit 4.

This course focuses on the implementation of the nursing process in caring for adult clients with medical-surgical alterations in the acute care setting. The additional concepts of the etiology and control of major health problems, conflict resolution, care coordination, organizational leadership and management, and nursing research will be included. Corequisite: NUR 455. Spring semester. For majors only.

NUR 499 Independent Study Ind 3./Credit 3.

This course provides students with the opportunity to collaborate with a faculty member conducting ongoing research. An individual teaching-learning research contract specifies the amount of time, particular tasks and level required to earn the desired grade for the number of credits earned. Contracts must be negotiated during the first week of class. Nursing Elective Open to all majors.

NUR - Graduate Only

NUR 510 Conceptual Approaches to Nursing Practice
Lec. 2./Credit 2.

Introduction to the articulation of nursing philosophy with a conceptual framework for nursing practice. The analysis of actual and potential health problems using selected concepts.

NUR 512 Organizational Behavior/Group & Role Theory
Lec. 2./Lab 1./Credit 3.

Exploration and analysis of commonalities inherent in Advanced Nursing Practice in various roles. Systems, role, organizational behavior, Teaching-Learning, and change theories provide the basis for synthesizing a conceptual framework of practice as Master Nurse Clinician, as an educator, administrator, or nurse practitioner with an organized health care system. A study of factors influencing effective group function is emphasized. Special emphasis on individual, family and communication theories, leadership roles, group process and the facilitation of changes in small groups.

NUR 514 Advanced Physical Assessment
Lec. 2./Lab 8./Credit 4.
Builds on skills and knowledge pertaining to the conceptual framework. Provides an opportunity to collect and analyze data with a variety of advanced skills and techniques that expand the nursing process for individual clients. Prerequisite undergraduate physical assessment course. Fall and Four (4) semester hours and two (2) lecture hours per week. Eight (8) clinical laboratory hours including one (1) clinical consultation hour per week. Additional laboratory fee.

NUR 530 Maternal-Fetal Pharmacology Lec. 3./Credit 3.
This course provides information about the pharmacology and management of drugs during the antenatal period and focuses on the principles of pharmacology as they apply to advanced nursing care of women, including uncomplicated, low-risk pregnancy. An emphasis of this course is the interrelationship of drug actions to physiologic and pathologic states during pregnancy.

NUR 600 Group Dynamics Lec. 3./Credit 3.
Exploration of factors influencing effective group function. Special emphasis is on group, systems, change, communication and/or family theories, leadership roles, group process and the facilitation of changes in small groups. Practicum experiences by arrangement.

NUR 604 Curriculum Development in Nursing Education
Lec. 3./Credit 3.
Fundamental principles of curriculum development as they apply to nursing education. Program planning and evaluation of associate degree and baccalaureate degree nursing education programs. Prerequisites: NUR 510, 512; Corequisites: 610 or 612 or 614.

NUR 605 Teaching of Nursing Lec. 2./Lab 8./Credit 4.
Development and analysis of selected teaching skills directed at predetermined levels of functioning in the cognitive, affective and psychomotor domains. Experience in clinical and classroom settings provides opportunities for developing and increasing skill in the total teaching-learning process. Placement in associate degree and baccalaureate programs. Prerequisites: NUR 610, 612 or 614, and NUR 604.

NUR 606 Nursing Administration Lec. 4./Lab 2./Credit 6.
Application of administrative processes and problem-solving techniques in a selected area within the healthcare setting. Emphasis on fiscal management, resource management, and accountability, utilizing a framework for ethical decision-making by nursing administrators in an increasingly complex health care delivery system. Prerequisites: NUR 510; NUR 512:MBA 609/NUR 648; MBA 648; EDU 611 and STA 600. Corequisites: NUR 600, 611, 681 or 683; 612 or 614.

NUR 607 Advanced Nursing Administration
Lec.3. Lab.2./Credit 5.
Designed to facilitate role development relevant to management of selected health care agencies. Allows the learner, while practicing in an agency designed to meet the complex health care needs of a diverse society, to refine critical analysis and problem-solving skills which are enhanced through use of small group communication skills and through interchange of ideas with nurse executives. Includes a preceptorship with selected agency preceptors such as Chief Executive Officers of nurse managed organizations or businesses. Collaborative projects are conducted with a nursing mentor. Prerequisites: NUR 606, 611 and 612 or 614.

NUR 608 Advanced Pathophysiology Lec. 3./Credit 3.
Course is designed for understanding the basic concepts of diseases processes in the human body. Knowledge of disease processes will be helpful in the development of a treatment plan that includes realistic goals and is consistent with the prognosis of the disease. Part I: General Pathology Basic problems of disease processes that may involve any organ of the body. Part. II: Systemic pathology which deals with the pathophysiologic processes that affect specific tissues and organ systems of the body. A clinical pathological approach.

NUR 609 Nursing Colloquium Lec. 3./Credit 3.
Identification and analysis of economic, social, political and educational forces that influence the health of the person, affect the health care delivery system, and produce changes in nursing.

NUR 610 Community Mental Health/Psychiatric Nursing I
Lec. 2./Lab 2./Credit 4.
Advanced concepts of community mental health as related to families. Interventions by the nurse with families in crisis, using a selected theoretical model of family therapy. The practicum affords supervised opportunities to assist families on the health continuum. Practicum hours to be arranged. Prerequisites: NUR 512, 510,514. Corequisite: NUR 600.

NUR 611 Community Mental Health/Psychiatric Nursing II Lec. 2./Lab 8./Credit 4.
Focuses upon the secondary and tertiary levels of prevention in mental health. Reviews the dynamics of psychopathological behavior in human beings. Emphasis is placed on advanced concepts of psychotherapeutic intervention in personal and social systems in an agency. Prerequisite: NUR 610.

NUR 612 Community Health Nursing I
Lec. 2./Lab 8./Credit 4.
Analysis of concepts of the conceptual framework relevant to community health nursing practice. Advanced theory of family and community are utilized. Corequisite: NUR 600. Prerequisites: NUR 510, 512, 514.

NUR 613 Community Health Nursing II
Lec. 2./Lab 8./Credit 4.
Advanced theory in community health settings with concentration or social system organizational theory, and change. Implementation of advanced concepts in community health nursing. Various healthcare agencies and systems explored. Prerequisite: NUR 612.

NUR 614 Advanced Adult Nursing I
Lec. 2./Lab 8./Credit 4.
Focuses on the secondary level of prevention in medical/surgical nursing. Utilization of concepts and theories from the conceptual framework as well as specified advanced concepts in medical/surgical nursing. Major emphasis on nursing strategies to assist adult clients and their families with acute cardiopulmonary dysfunctions. Prerequisites: NUR 510, 512, 514, and 608 or BIO 609. Corequisite: NUR 600.

NUR 615 Advanced Adult Nursing II Lec. 4./Credit 4.
Focuses on the tertiary level of prevention in medical/surgical nursing. Application of a systems approach to groups of clients with chronic neuroendocrine dysfunctions within various community settings, Emphasizes nursing strategies based on a conceptual framework congruent with the student's philosophy of nursing. Prerequisite: NUR 614.

NUR 618 Primary Care of Family I Lec. 3/Lab 2./Credit 5.
Focuses on theory and clinical practice in nursing management of common, minor, acute and stable long-term health alterations of individuals and complex multi-problem families in selected ambulatory settings. Health promotion and maintenance in collaboration with physicians and other health professionals emphasized. Prerequisites: NUR 510, 512, 514 and NUR 630. Co-requisite: NUR608. Registration by permission of Family Nurse Practitioner Faculty. .

NUR 619 Primary Care of Family II: Specific Population
Lec. 3/Lab1./Credit 4.
Advanced specialization in primary care family ambulatory nursing of specific individuals in all developmental stages in selected ambulatory health care settings. Health planning in interdisciplinary healthcare team encouraged with community assessment. Prerequisite: NUR 618. Registration by permission of Family Nurse Practitioner Faculty.

NUR 621 Primary Care of family III Lec. 3/Lab 1./Credit 4.
Designed to facilitate role development relevant to nurse practitioner evaluation and management of selected clients with health alterations and primary health care needs. Students refine critical analysis and problem-solving skills. Prerequisites: NUR 618, 619. Registration by permission of Family Nurse Practitioner Faculty.

NUR 630 Advanced Pharmacotherapeutics
Lec. 3./Credit 3.
Focuses on concepts, principles, and applications of pharmacotherapeutics used by the family nurse practitioner in the management of common, minor, acute, and stable long-term illnesses. Emphasizes pharmacological factors and client issues relevant to complex decision-making regarding therapeutic modalities in pharmacotherapeutic management of clients.

NUR 635 Frameworks of Women's Health Lec. 2./Credit 2.
This course examines the philosophical basis of women's health and its evolution as a practice and research field in nursing, emphasizing historical, political, and sociocultural context.

NUR 638 Health Care of Women I: Childbearing
Lec. 3./Lab 1./Credit 4.
This course has a focus on the health of normal pregnant women within the context of the family. In this course, communication skills are developed in both written and oral presentation. Content on role issues and differences between collaboration, consultation, and referral to other health care providers are explored. Knowledge regarding how best to collaborate with other health care and social service agencies is taught. Students are helped to begin to define their role as an Advanced Practice Women's Health Nurse Practitioner and are given skills in using research in clinical practice and identifying the conceptual framework from which they provide care. Information on the physiology of normal pregnancy is presented as well as information on antenatal assessment and non-invasive fetal surveillance. This course includes bio-physiologic processes such as the genetic and endocrine basis of reproduction and maternal physiologic adaptations associated with pregnancy. Fetal growth and development and biologic basis of development are essential components of the course. Management of the essentially uncomplicated pregnancy is emphasized. This information is a necessary foundation for all students and is an economical way to offer needed content.

NUR 639 Health Care of Women II: Lifespan
Lec. 3./Lab 1./Credit 4.
This course focuses on theories, concepts, knowledge, decision making, and clinical skills for comprehensive health promotion, health maintenance, illness prevention, early illness detection, and restoration of health for common problems of adolescents, young, middle aged, and aged women. The students will develop proficiency in the assessment, diagnosis, and management of women. Content in each age group will focus on developmental tasks, reproductive health concerns, including preconception, conceptual control, and fertility, age-specific health problems, and family issues. Develops the student's competencies in providing comprehensive women's health care including assessment of health status and intervention with the family system. This course provides the opportunities for collection and analysis of data with a variety of advanced differential diagnostic skills and techniques that expand the use of the graduate nursing process for women. Preceptorship will be scheduled in a variety of settings with an emphasis on providing comprehensive health care to women.

NUR 642 Health Care of Women III: Primary Care
Lec. 2./Lab 2./Credit 4.

This course provides advanced specialization in women's health nursing. Emphasizes the provision of women's health from adolescents through childbearing in clinical settings by the learner in consultation with faculty and preceptors. Women's Health Nurse Practitioner's role is defined as the student practices in collaboration with obstetricians/gynecologists and other health care providers in the application of theories of management. Critical examination of current women's health research. Emphasis is on the integration and application of knowledge about nursing theories related to the family as systems of care. Selected theories/conceptual frameworks and current research findings related to human development, women, and families will be emphasized. Students will explore group dynamics of women and the family system, communication theories, group processes, and the facilitation of change. Emphasis will also be placed on application of these findings to advanced nursing practice with women and families.

NUR 643 Health Care of Women IV: Low-Risk Childbearing Family Lec. 3./Lab 1./Credit 4.

This course focuses on providing the theoretical basis for the nurse in an advanced practice role who will be managing the care of women experiencing a low-risk pregnancy. This course provides basic information necessary to students and is a cost effective way of providing this information. Emphasis is placed on the role of the advanced practice nurse in managing care. One clinical day per week. Prerequisites NUR 642, NUR 639, NUR 638, NUR 635.

NUR 648 Financial Management for Nurse Administrators
Lec. 3./Credit 3.

This course will provide basic knowledge of healthcare finance for future nurse administrators to prepare for successful interfacing between the finance department and nursing administration. It will include finance theory; budget principles, strategies and evaluation; workload management; and finance/accounting issues related to health care entities. Prerequisite: None.

NUR 650 Role Development and Health Promotion for APRN Lec. 3. /Credit 3.

This course is a critical analysis and examination of current Advanced Practice Nurse issues. It is a synthesis of knowledge gained and applied by the students over the course of the program. Application, synthesis, and evaluation are stressed. Students will actively participate in this lecture course. Role realignment will be emphasized with Advanced Practice Nurse in a variety of clinical settings. The courses emphasize health history, physical assessment, role realignment, mental status, family theory, women's and men's health crisis intervention, health promotion, communication, management of acute and chronic health problems, collaboration, and utilization of community resources.

NUR 670 Statistics for Health Professionals
Lec. 3./Credit 3.

An interdisciplinary course for graduate students in the health professions. Procedure of data reduction presentation and measures of central tendency, variability and relationships are presented to develop both an understanding of an ability to utilize descriptive and inferential statistics. Includes application of computerized data generating and data-analytic programs. This course is equivalent to COU 630. Fall Semester.

NUR 678 Family Health Nursing: Theory & Practice
Lec. 3./Credit 3.

This graduate level family health nursing course focuses on defining and describing the family as a unit of care. Emphasis is placed on the exploration of the family structure and organization, family roles and communication, family nursing as a concept, family nursing theory, family health research, and the impact of politics and public policies on families.

NUR 681 Master's Thesis Research Credit 4.

This course is based on a scholarly investigation of a problem involving the use of nursing research approaches and techniques. Prerequisites: EDU 611, NUR 610, 612 or 614, STA 600.

NUR 682 Thesis Seminar Sem. 1./Credit 1.

Thesis advisement of students for completion of thesis. Registration by permission of the instructor. Prerequisites: Approved thesis proposal.

NUR 683 Research Methods in Nursing
Lec. 3./Ind. 1./Credit 4.

Presents a review of the nursing research process as well as an in-depth analysis and an opportunity for designing, implementing, and reporting the results of a research project. Students are required to implement a small research design through collaboration with group members. In addition, didactic presentations cover the philosophy of nursing research, the nature of scientific thinking, methods of nursing research, research literature in nursing, and the role of nursing research in enhancing clinical nursing practice. Prerequisites: STA 600, NUR 510, 512 or 514.

NUR 699 Independent Study in Nursing Ind./Credit 1-6.

Independent study as directed by graduate nursing faculty. Research focus or pursuit of an area of special clinical or library study may be individually contracted. Prerequisites: Registration with approval of instructor and departmental chairperson. One (1) consultation hour per week. Independent study and clinical hours weekly commensurate with credit hours contracted.

NUR 700 Thesis Registration Credit 0.

NUR 702 Master's Comprehensive Examination Credit 1.

This credit will not count towards the degree.

NURO (Nursing - Online) Doctoral Only

NURO 704 Intro to Online Learning and Scientific Writing Lec. 2/Credit 2.
In introduction to the requirements for successful participation in the graduate-level online programs. The course will provide a foundation for the student's academic and professional success as a nursing scholar. Course activities focus on the practical application of the online learning environment and writing for nursing science. Emphasis will be on the use of technologies and the American Psychological Association (APA) guidelines.

NURO 710 Family/Family Related Research: Historical and Cultural Perspectives Lec. 3./Online/Credit 3.
This course focuses on the history of family nursing practice and provides opportunities for an exploration of the influence of culture on family health-related behaviors. Emphasis is placed on the exploration of the contributions of the evolution of nursing practice to the health of families. Students will explore the development of family nursing theory by means of culturally appropriate nursing research methods. Researchable questions emerging from family nursing practice will be identified. Course emphasis will be on minority families.

NURO 711 Family/Family Related Research: Philosophical, Conceptual and Theoretical Perspective Lec. 3./Online/Credit 3.
This course focuses on the contemporary philosophical, conceptual, and theoretical perspective that undergird family nursing research. Emphasis is placed on exploration of the impact of contemporary philosophies of science and nursing science, conceptual models of nursing, and nursing theories on the design and conduct of family nursing research.

NURO 712 Family/Family Related Research: Theory & Concept Analysis Lec. 3./Online/Credit 3.
This course considers contemporary nursing research as it pertains to the current state of the art and directions for future study. Discussions will include advanced analysis of methodology, assumptions, and theoretical structures that underpin the work. Culturally appropriate methods will be emphasized.

NURO 713 Family/Family Related Research: Leadership, Policy and Ethics Lec. 3./Online/Credit 3.
A critical examination of the role of nursing leadership is presented in light of current healthcare issues. Among the topics to be considered are demographic distributors of nursing services, legislative and legal forces as they affect the professions, nursing organization as a power for change, educational preparation for practice, and systems of accountability.

NURO 714 Quantitative Methods I Lec. 3./Online/Credit 3.
This course focuses on the design of descriptive and correlational family-related and family nursing research. Emphasis is placed on the collection and statistical analysis of quantitative data and use of statistical software.

NURO 715 Quantitative Methods II Lec. 3./Online/Credit 3.
This course focuses on the design of experimental family-related and family nursing research. Emphasis is placed on the collection and statistical analysis of quantitative data and the use of statistical software.

NURO 716 Qualitative Methods I Lec. 3./Online/Credit 3.
This course focuses on interpretative methods of family nursing research. Emphasis is placed on the collection and analysis of qualitative data by using a case study, survey, phenomenological, grounded theory; and ethnographic, and historical methods of inquiry.

NURO 717 Family/Family Related Research: Instrument Development Lec. 3./Online/Credit 3.
This course focuses on the design and psychometric testing of culturally-sensitive instruments. Emphasis is placed on methods used to determine the validity and reliability of instruments to measure family-related and family nursing phenomena.

NURO 718 Analysis and Evaluation of Theory Generating and Theory Testing Research Lec. 3./Online/Credit 3.
This course focuses on the analysis and evaluation of family-related and family nursing research designed to generate or test theories. Emphasis is placed on identification of the conceptual-theoreticalempirical structures for minority family-related and family nursing research.

NURO 719 Qualitative Methods II Lec. 3./Online/Credit 3.
This course addresses the skills and knowledge needed for the completion of qualitative research for the dissertation and includes the research design, data analysis and representation, methods for increasing trustworthiness, and ethical considerations in research with human subjects. Emphasis is placed on the collection and strategies of analysis of qualitative data and the use of statistical software.

NURO 720 Dissemination and Utilization of Family Nursing Research Lec. 3./Online/Credit 3.
This course focuses on the theoretical and practical aspects of disseminating and utilizing the findings of family-related and family nursing research. Emphasis is placed on the leadership role of doctorally-prepared nurse researchers in developing and applying theories of research dissemination and utilization. This is a Nursing Cognate course.

NURO 721 Vulnerable Populations: A Family Perspective Lec.3./Online/Credit 3.
This course focuses on the phenomenon of vulnerability among families throughout the world. Emphasis is placed on family coping strategies and includes an analysis of family risk factors and resilience in health and illness. An interdisciplinary course. This is a Nursing Cognate course.

NURO 722 Special Topics in Family Nursing Lec. 3./Online/Credit 3.
A seminar focusing on a variety of topics related to the advancement of knowledge in family nursing science. Topics arranged through student and faculty research interests. This is a Nursing Cognate course.

NURO 723 Family Research Lec. 3./Online/Credit 3.
This course will include an analysis of nursing and other theories in relationship to research of families. Methodological issues related to research of families will be discussed, as will the analysis of family data and measurement issues common to research of families. The seminar will conclude with an agenda for future directions in research of families. This is a Nursing Cognate course.

NURO 724 Special Topics in Family Research and Family Development Theory Lec. 3./Online/Credit 3.
This course offers a critical review of theory and research literature on family systems, analysis of methods and instruments, and consideration of the specific projects of invited family researchers. This is a Nursing Cognate course.

NURO 725 Grantsmanship and Publication Lec. 3./Online/Credit 3.
This course engages students in writing experiences, which prepare the learner for manuscript and grant proposal submissions. Students will explore the introductory concepts of writing research, training, and demonstration grants to include potential funding sources, proposals (manuscript), and development of research prospectus. A completed grant proposal suitable for submission is required of all enrollees.

NURO 726 Creating the Future of Nursing Education Lec. 3./Credit 3.
This course will focus on the policies and forces affecting organization and governance in nursing education. The role of the nurse leader in creating an environment which promotes academic excellence will be investigated. Current issues affecting higher education will also be addressed.

NURO 727 Learning Theories and Educational Philosophy Lec. 3./Credit 3.
This course will focus on knowledge and application of educational frameworks and theories and learning theories. The relationship between nursing theory and educational theory in designing nursing education programs, teaching practices and educational policies is explored. Methods for testing educational theories will be evaluated.

NURO 728 Assessment, Evaluation and Accreditation in Nursing Education Lec. 3./Credit 3.
This course will focus on knowledge and application of measurement principles and practices for assessing learning outcomes and evaluating research in nursing education. The current state of evaluation in nursing education will also be explored. Students will analyze, synthesize and propose research on assessment, evaluation and accreditation in nursing education.

NURO 729 Teaching Strategies for Nursing Educators Lec. 3./Credit 3.
This course will focus on new and emerging challenges in nursing education. Students will examine clinical teaching modes, advances in technology, effective methods for incorporating current technologies into teaching and online and distance learning.

NURO 730 Organization and Governance in Higher Education Lec. 3./Online/Credit 3.
Focus on the administration of institutions of higher learning. Emphasis will be placed on higher education structure and characteristics, intra-institutional and extra-institutional forces affecting the governance of higher education, power delineations and struggles, and principles of problem solving.

NUR 731 Curriculum Development in Nursing Education Lec. 3./Credit 3.
This course will focus on an in-depth study of the principles, theories, and models of curriculum development related to nursing education. Emphasis will be placed on program planning and evaluation of baccalaureate and higher degree programs.

NUR 732 Seminar in Higher Education Policy, Planning, and Leadership Lec. 3./Credit 3.
A critical examination of the role of leadership in higher education and nursing education is explored, including an in-depth analysis or policies. Students will plan ideal nurse education programs in conjunction with a national network of nursing education mentors. Students will also contract for independent assignments related to their career goals.

NUR 733 Advanced Internship in Nursing Education Lec. 3./Credit 3.
A mentored teaching experience in a baccalaureate or higher degree nursing program appropriate to the student's planned career goals. The internship will focus on the use of innovative teaching-learning strategies and multimedia technology approaches; provides the opportunity for students to pursue an area of skill development under the guidance of master teachers. One hour of didactic mentoring and 2 credit hours (6 contact hours) of teaching activities per week.

NUR 799 Independent Study in Nursing Ind./Credit 1 – 6.
Independent study as directed by doctoral nursing faculty. The pursuit of an individual research project. Student contracts for one to six semester hours. May use as 3 credits of cognate only. This is a Nursing Cognate course.

NURO 800 Ph.D. Comprehensive Examination Credit 0.
The student focus for the comprehensive examination is to demonstrate an understanding of knowledge in relevant, related fields of study, which undergirds the dissertation research. Students will develop a draft dissertation proposal in preparation for enrollment in NURO 801 Dissertation Research I. The comprehensive examination must be completed before enrollment in NURO 801-Dissertation Research I. Students may enroll in this course for a maximum of two times. Grade = S/U

NURO 801 Dissertation Research I
Sem. 4./Online/Credit 4.
This course focuses on the development of the dissertation research proposal. The focus includes a focus on the research problem, purpose, background, significance, theoretical framework and literature review. Emphasis is placed on the elements of integrative reviews of theoretical literature and outlining the conceptual-theoretical-empirical structure for the research. Students will complete a refined first two chapters at the end of the session for submission to the dissertation chair/committee. Students may enroll in this course for a maximum of three times. The Department of Graduate Nursing Education must approve extensions of exceptional circumstances. Grade = S/U.

NURO 802 Dissertation Research II
Sem. 4./Online/Credit 4.
This course focuses on the continued development of the research methodology (Chapter III), dissertation chair/committee approval, and progression to IRB submission of the dissertation research proposal. Emphasis will be placed on refinement of the conceptual-theoretical-empirical structure, current literature review, and the methodology for the proposed research. Students are expected to progress through the IRB process after proposal approval by the dissertation committee and school dean. Data collection begins upon approval by IRB. Students may enroll in this course for a maximum of three times. Extensions of exceptional circumstances must be approved by the Department of Graduate Nursing Education. Grade = S/U.

NURO 803 Dissertation Research III
Sem. 4./Online/Credit 4.
The dissertation constitutes the final phase of the program. The preparation of the dissertation should begin early in the program and evolve from a study of family or family-related issues. Students will complete data collection, conduct data analysis, develop Chapter IV (Results), Chapter V (Discussion), and assemble the complete dissertation manuscript in preparation for review by the dissertation chair/committee. Students may enroll in this course for a maximum of three times. Extensions of exceptional circumstances must be approved by the Department of Graduate Nursing Education. Grade = S/U.

NURO 804 Dissertation Research IV
Sem. 4./Online/Credit 4.
This course focuses on the continued preparation of the dissertation manuscript. Students will continue to complete Chapter IV (Results), Chapter V (Discussion), and assemble the complete dissertation manuscript in preparation for review by the dissertation chair/committee and Department Chair/School Dean. Students will address comments/corrections rendered during the reviews by the dissertation chair/committee and Department Chair/School Dean. Students may enroll in this course for a maximum of three times. Extensions for exceptional circumstances must be approved by the Department of Graduate Nursing Education. Grade = S/U.

NURO 805 Dissertation Defense Credit 0.
Students will present and defend their dissertation and finalize their dissertation manuscript for publication. The dissertation committee and school dean must approve the dissertation before a Request to Defend form can be submitted to the Graduate College. Students will present and defend the dissertation to, at a minimum, the dissertation committee and a representative of the Graduate College. After addressing comments/corrections resulting from the dissertation defense, the student will finalize the document for submission to the Graduate College. Grade = S/U.

OPE (Opera)

OPE 119-120 The Hampton University Opera Theater
Lec. 2./Credit 2.
Activity is geared to rehearsal and performance of operatic repertoire. Special emphasis is placed on acquisition of knowledge of all aspects of production and performance. Limited to full-time students only.

ORC (Orchestra)

ORC 101 University Orchestra Lab 2./Credit 1.
A major ensemble for music majors. It is also open to all members of the campus community upon audition. Literature is selected from the renaissance through the contemporary eras.

ORC 205 Small Ensemble Lab 2./Credit 1.
Performance experiences in various chamber-sized ensembles. May be repeated for credit up to 8 semester hours.

ORC 205 Jazz Combo Lec. 2./Credit 1.
A group organized for the purpose of group and solo playing in any one of the many jazz styles from swing to bebop and the avant-garde. Exploring as many different styles, both in ensemble and improvisation, as possible.

ORG (Organ) ORG 103-104, 203-204, 303-304, 403-404
Minor Performance Stu. 2./Credit 1.
Individual lessons in the minor performing medium, organ. Manual and pedal techniques; intermediate and advanced courses commensurate with the students skills. Non-majors must have departmental permission to enroll.

ORG 107-108, 207-208, 307-308, 407-408
Major Performance Performance Class 1
Stu. 2./Credit 2-3.
Four-year course in the major performing medium, organ Intensive study of advanced performance skills: manual and pedal techniques, principles of registration; hymn preying; interpretive and stylistic concepts covering the full range of organ literature.

ORG 507-508 Major Organ Performance Class 1
Stu. 1./Credit 2.
A continuation of major applied study beyond the public recital. Prerequisite: ORC 408.

PED (Physical Education)

These courses are designed to fulfill the General Education requirements for Physical Education, or as elective courses once the General Education requirement is met. For introductory level courses, the student will be expected to demonstrate basic knowledge and fundamental skills in the sport or activity. For intermediate and advanced level courses, the student will be expected to demonstrate knowledge and skill at the intermediate or proficient levels, respectively. All classes are co-educational. Courses meet two hours per week per credit hour.

PED 101 Western Equestrian I Lec. 2./Credit 1.

PED 102 Western Equestrian II Lec. 2./Credit 1.

PED 103 Yoga Lec. 2./Credit 1.

PED 104 Aerobic Dance Lec. 2./Credit 1.

PED 106 Pilates I Lec. 2./Credit 1.

PED 107 Pilates II Lec. 2./Credit 1.

PED 108 Basic Swimming Lec. 2./Credit 1.

PED 109 Football, Touch-Tag Lec. 2./Credit 1.

PED 110 Fitness Walking Lec. 2./Credit 1.

PED 111 Beginning Bowling Lec. 2./Credit 1.

PED 112 Advanced Bowling Lec. 2./Credit 1.

PED 113 Conditioning Lec.2./Credit 1.

PED 114 Folk Square Dance Lec. 2./Credit 1.

PED 115 Modern Dance I Lec. 2./Credit 1.

PED 116 Modern Dance II Lec. 2./Credit 1.
Prerequisite: PED 115, Modern Dance I.

PED 117 Personal Defense I Lec. 2./Credit 1.

PED 118 Personal Defense II Lec. 2./Credit 1.

PED 119 Personal Defense III Lec. 2./Credit 1.

PED 121 Golf I Lec. 2./Credit 1.

PED 122 Golf II Lec. 2./Credit 1.

PED 129 Soccer Lec. 2./Credit 1.

PED 131 Softball Lec. 2./Credit 1.

PED 133 Aerobic Swimming Lec. 2./Credit 1.

PED 134 Beginning Swimming Lec. 2./Credit 1.

PED 135 Intermediate Swimming Lec. 2./Credit 1.

PED 137 Beginning Tennis Lec. 2./Credit 1.

PED 138 Intermediate Tennis Lec. 2./Credit 1.

PED 140 Track and Field Lec. 2./Credit 1.

PED 143 Volleyball Lec. 2./Credit 1.

PED 144 Wrestling Lec. 2./Credit 1.

PED 145 Adapted Activities Lec. 2./Credit 1.
Includes activities for the handicapped student.

PED 146 Angling-Casting Lec. 2./Credit 1.

PED 147 Archery Lec. 2./Credit 1.

PED 149 Badminton Lec. 2./Credit 1.

PED 152 Basketball Lec. 2./Credit 1.

PED 160 Beginning Sailing I Lec. 2./Credit 1.

PED 161 Sailing II Lec. 2./Credit 1.

PED 165 Step Aerobics Lec. 2./Credit 1.

PED 226 Skill Technique Advanced Swimming Lec. 2./Credit 1.
See description below.

PED 227 Lifesaving/ Water Safety Lec. 2./Credit 1.
See description below.

PED 228 Scuba Diving Lec. 2./Credit 1.
See description below.

PED 100 Skill Technique Workshop Lec. 0./Credit 0.
Skill technique development for Health and Physical Education majors. Prerequisite: PED 220 with a minimum grade of "C".

PED 105 Physical Fitness Concepts Lec. 2./Credit 2.
This course is designed to acquaint the student with basic knowledge and understanding of concepts associated with physical fitness and activity as they relate to optimal healthful living. Laboratory experiences involving participation in and assessment of physical fitness levels, principles of physical fitness, cardiovascular endurance, strength training, and flexibility programs are emphasized.

PED 201 Movement Forms: Team Sports Lec. 1./Lab 1./Credit 2.
This course is designed to develop and refine movement in a variety of team sports, such as basketball, field hockey, football (touch-tag), soccer, softball, and volleyball. The student will be expected to demonstrate in-depth knowledge, social interaction/ sportsmanship, and proficient skill in each sport, as well as to perform analysis of skills.

PED 202 Movement Forms: Individual and Dual Sports Lec. 1./Lab 1./Credit 2.
This course is designed to develop and refine movement in a variety of individual and dual sports, such as badminton, bowling, golf, personal defense, tennis, and track and field. The student will be expected to demonstrate in-depth knowledge, social interaction/ sportsmanship, and proficient skill in each sport, as well as to perform analysis of skills.

PED 203 Movement Forms: Games and Cooperative Activities Lec. 1./Lab 1./Credit 2.
This course is designed to develop and refine movement in a variety of games and cooperative activities, including trusting games, lifetime leisure activities, and outdoor and adventure activities (e.g., archery, equestrian, sailing, etc.). The student will be expected to demonstrate in-depth knowledge, social interaction/ sportsmanship, and proficient psychomotor skill in each activity, as well as to perform analysis of skills.

PED 214 Movement Forms: Rhythms and Dance Lec. 1./Lab 1./Credit 2.
This course is designed to develop and refine movement in a variety of dance techniques, rhythmic fundamentals, and creative activities The student will be expected to demonstrate fundamental knowledge and skills in dance forms, and to perform skill analysis of dance movements.

PED 215 Movement Forms: Tumbling and Gymnastic
Lab 1./Credit 1.

This course is designed to develop and refine movement in basic tumbling and gymnastics. The student will be expected to demonstrate in-depth knowledge, social interaction/sportsmanship, and proficient skills in each activity.

PED 220 Introduction to Health, Physical Education and Recreation Lec. 3./Credit 3.

History, purposes, nature, scope, professional literature, professional organizations, and career opportunities health, physical education and recreation. Fall semester.

PED 221 Foundations of Health & Physical Education
Lec. 2./Credit 2.

This course is designed to provide an introduction to the historical, philosophical and professional foundations of health and physical education. Professional responsibilities, reflection and collaboration, career paths, current research, and new directions will be introduced.

PED 224 Introduction to Sport Management
Lec. 3./Credit 3.

Course material will constitute an introduction to the basic tenets of management principles as they relate to sport in amateur, interscholastic, intercollegiate, and professional settings. Career opportunities in sport management, trends in the administration of sport, and the sport management environment will also be addressed Students will be exposed to planning, strategic management, problem solving and decision-making, organizing, and staffing, as well as motivation, leadership, communication, conflict resolution, and control. Note: Meets requirements of NASSM/NASPE program approval content area Management and Leadership of Sport.

PED 225 Intermediate Swimming Lec. 2./Credit 1.

Basic leg strokes and corresponding arm strokes. Safety swimming skills such as floating, sculling, treading and underwater swimming. Fully coordinated dive, and safety skills in intermediate swimming.

PED 226 Skill Technique-Advanced Swimming
Lec. 2./Credit 1.

Emphasis on coordination of parts of body into three strokes to develop ease, endurance, and versatility in water. Mass instruction and individual analysis and correction. Prerequisite: PED 225 or the instructor's recommendation. Fall and spring semesters.

PED 227 Lifesaving and Water Safety Lec. 2./Credit 2.

This course is designed to provide instruction in lifesaving, first aid and CPR (cardiopulmonary resuscitation) skills. Upon successful completion of this course, students receive an American Red Cross Lifeguard and CPR for the Professional Rescuer certificate. Prerequisites: PED 134, PED 135 or Instructor's recommendation.

PED 228 Scuba Diving Lec. 2./Credit 2.

Provides the student with the knowledge and skills in using underwater breathing equipment. Entry level instruction in skin and scuba diving concepts, incorporating all classroom and pool activities. Optional open water training, dives for international certification.

PED 230 Physical Education for Diverse Populations
Lec. 3./ Lab 1./Credit 3.

This course is designed to provide an understanding of the knowledge, skills, and processes for teaching physical education for diverse populations within school and community settings. Diversity may be by gender, race, ethnicity, religious beliefs, cultural factors, prior experiences, learning styles, physical disability, or multiple needs. Topics will include adapted physical education curricula, motor assessment for individuals with disabilities, and Individualized Education Plan (IEP) development, physical and social inclusion in physical education.

PED 240 Sport Marketing Lec. 3./Credit 3.

An examination of marketing principles as they relate to sport as a product, sport consumers, identification of target markets, and the marketing planning process. The role of sport business in the global marketplace, the history of sport marketing, sport marketing theory, the marketing mix and the sport industry, sport promotions, media and public relations, endorsements, and licensing will also be addressed.

PED 301 Motor Development & Learning
Lec. 3./Lab 1./Credit 3.

This course is designed to provide a foundation of the theory and techniques of movement concepts exploration and motor development utilizing spatial, temporal, and flow variables. Principles of learning as they apply to the acquisition of psychomotor skills, including motivation, personality characteristics, and transfer in this development.

PED 306 Kinesiology Lec. 3./Credit 3.

Study of body movements, muscle action and joint mechanics as related to physical education activities. Prerequisites: BIO 224 and 225.

PED 314 Skill Technique-Fundamentals of Folk, Square and Social Dance Lec. 2./Credit 1.

This course explores the steps, patterns and formations of American square dance, Latin and American social dance, and world dance.

PED 315 Skill Technique-Individual Dual Sports I
Lec./Lab 2./Credit 2.

This course is designed to develop and refine performance skills, knowledge of rules, terminologies, equipment safety techniques, and learning procedures in archery, badminton and tennis.

PED 316 Skill Technique-Individual-Dual Sports II
Lec./Lab 2./Credit 2.

This course is designed to develop and refine performance skills, knowledge of rules, terminologies, equipment, safety techniques, and learning procedures in bowling, golf, and track and field events.

PED 321 NK-8 Activities Lec. 3./Credit 3.

Theory and techniques of movement exploration and motor development utilizing spatial, temporal, and flow variables. Motor activities for nursery school through eighth grade are included.

PED 331 Skills Technique Lec./Lab 3./Credit 4.
Designed to improve teaching techniques and developmental analysis of skills into its component parts. Practical application is stressed through contact with school-age children, PK-12 (EDU 313). Carry over from skill development to application and analysis of skills to teaching. Prerequisite: Lower level courses, PED 100s, 220; EDU 371 or 372.

PED 340 Sport Law and Governance Lec. 3./Credit 3.
An overview of legislative enactments and case law related to administrative, constitutional, contract, labor, products liability, tort law, collective bargaining, and risk management techniques in sport. Also covered are the operational, decision-making, and legislative functions of governing agencies in sport, including NCAA, the IOC, the USOC, the AAU and NFSHAA. Issues such as funding, marketing, membership requirements, legislation, rules compliance, constitutions and bylaws will be addressed.

PED 341 Sport Finance and Economics Lec. 3./Credit 3.
An extension of basic economics and finance as they apply to interscholastic, intercollegiate, amateur, and professional sports, including budgetary procedures and processes, the development and analysis of economic impact studies, major sources of revenue and expense, fundraising, budget development skills, and sound fiscal management practices.

PED 342 Policy in Sport Management Lec. 3./Credit 3.
This course provides students with the skills and knowledge applicable to the process of building and sustaining excellent organizations. Several key questions will be addressed during the semester; (1) how can good companies, mediocre companies, even bad companies achieve enduring greatness? and (2) what makes the truly exceptional companies different from other companies? In answering these questions, students will be required to take a multi-disciplinary approach, applying concepts from law, marketing, finance, organizational behavior/development, and sociology. Note: Meets requirements of NASSM/NASPE program approval–content area–Management and Leadership of Sport.

PED 345 Sport Public Relations and Promotions Lec. 3./Credit 3.
This course will introduce students to the unique nature of sport publicity and public relations as they relate in community, collegiate and professional sport environments. In addition, the class will examine the interplay between publicity and promotions as an overall component of a sport organization's marketing plan. The class format will include lectures, group discussions, videotapes, and guest speakers. Meets requirements of NASSM/NASPE program approval–content area–Marketing in Sport.

PED 360 Psychosocial Aspects of Sport & Physical Education Lec. 3./Credit 3.
This course exams human behavior in relation to sport and physical activity. Various sociological theories, which define and detail the significance of sport and physical education in our society will be the focus of the course. These theories will be examined in the context of the sport industry and physical education programs. In addition, this course will analyze media coverage of male and female athletes and the impact on sport participation. Class discussions of current social aspects of sports and physical education programming will also be an important component of this course. Note: Additional course content added to meet requirements of NASSM/NASPE program approval content areasSocio-Cultural Dimensions in Sport/Ethics.

PED 361 Historical and Philosophical Aspects of Physical Education and Leisure Lec. 2./Credit 2.
Study of the past, present, and future characteristics, and philosophical impact of physical education and leisure. Spring semester.

PED 362 History of Sport Lec. 3./Credit 3.
This course is designed to introduce the interested student to the exciting heritage of sport. The term sport is broadly defined, intending to include play, recreations, athletic contests, and sporting diversions of all kinds. This course focuses upon the nature and significance of modern sport, especially American sport during the past two hundred years. Note: Meets requirements of NASSM/NASPE program approval–content area–Socio-Cultural Dimensions in Sport.

PED 364 Race and Gender in Sports Lec. 3./Credit 3.
This course will use sociological theory and research and critical thinking to investigate the links between race, sports, and gender. Race and gender shape social identity and life changes as well as the organization and culture of sports. Racial and gender issues in sport are numerous, however, this course identifies and covers some of the more historic and influential topics on this subject highlighted by the media and society today. Note: Meets requirements of NASSM/NASPE program approval–content area–Socio-Cultural Dimensions in Sport.

PED 365 Exercise Science & Fitness Lec. 3./Credit 3.
This course is designed to provide a strong foundation in the components of fitness and exercise science, and conditioning practices and principles.

PED 367 Current Issues in Sport Management Lec. 3./Credit 3.
This course is offered to expose and educate the Sport Management major to the latest issues impacting the sport industry. This course will provide students with an in-depth analysis of various controversial topics in sports, by examining all sides of the arguments'. Students pursuing careers as sports agents and managers are encouraged to take this course. Note: Meets requirements of NASSMINASPE program approval–content areas–Socio-Cultural Dimensions in Sport/ Ethics.

PED 373 Methods of Teaching Swimming
Lec./Lab 2./Credit 2.
This course is designed to train instructor candidates to teach instructional swim classes. Topics include planning and organizing water safety courses, including the use of block plans and lesson plans; skill development sessions; and conducting practice teaching. Upon successful completion of this course, students receive an American Red Cross Water Safety Instructor certificate and Fundamentals of Instructor Training certificate. Prerequisites: PED 134, PED 135 or Instructor's recommendation.

PED 390 Management of Athletic Programs
Lec. 3./Credit 3.
This course emphasizes principles and techniques of management in organizing, planning and staffing, event scheduling, aspects of budgeting, event management, and crowd control of athletic events and programs.

PED 395 College Athletic Administration Lec. 3./Credit 3.
This course comprises the study of college athletics, including an analysis of the management of a collegiate athletic department, and a review of the organizational structure in regards to the NCAA, conferences, and institutional athletic departments. The course will focus on the NCAA (not NAIA, NJCAA, etc.) mostly Division I, some Division III, and very little Division II. The course will include particular attention and discussion surrounding prevailing issues in college athletics including financial trends, legislation, conference realignment, reform, Title IX/Gender Equity and other contemporary issues as assigned by the instructor. Note: Meets requirements of NASSM/NASPE program approval–content area–Management and Leadership in Sport.

PED 405 Theory and Technique of Coaching
Lec. 3./Credit 3.
This course provides instruction in coaching, methodology, organization, program planning, and coaching strategies. Meets requirements of NASSM/NASPE program approval–content areas–Management and Leadership in Sport Ethics.

PED 406-01 Officiating Athletics I Lec./Lab 2./Credit 2.
A study of volleyball and football rules and rule interpretation with emphasis on proper mechanics, techniques, and responsibilities in officiating.

PED 406-02 Officiating Athletics II Lec./Lab 2./Credit 2.
A study of basketball and track and field rules and rule interpretation with emphasis on proper mechanics, techniques, and responsibilities in officiating.

PED 407 Administration of School Physical Education (Intramural and Interschool Sport)
Lec. 2./Credit 2.
Provides a study of personnel, budgets, schedules, facilities and equipment, and materials for basic and cooperative programs; health and safety, including desirable practices, health appraisals and referrals, injury prevention, handling accidents and wellness, liability and legal aspects, and sports medicine; working with the handicapped; and public relations.

PED 409 Issues in Physical Education Lec. 3./Credit 3.
The purpose of this course is to provide a forum for discussion of societal, political and psychological issues which impact the development and implementation of physical education programs. The specific topics include multiculturalism, socialization of teachers, national education reforms, curricular models, and other contemporary topics. The course will involve a lecture, discussion format.

PED 427 Physiology of Exercise Lec. 3./Credit 3.
Study of physiological changes in human organism due to physical exercise. Physiological basis for understanding programs of physical education for schools and training programs for athletic teams. Laboratory demonstrations dealing with simple observation of respiratory, circulatory, nervous and metabolic adjustment to physical exercise. Prerequisites: BIO 224 and 225.

PED 440 Seminar in Physical Education Lec. 2./Credit 2.
This seminar is designed to provide a forum for synthesis and application of professional standards, including content knowledge, growth and development, diverse students, management and motivation, communication, planning and instruction, student assessment, reflection, technology, and collaboration. Discussion of current issues in physical education also will be included. The student will be expected to present a professional portfolio demonstrating competency in all professional standard areas.

PED 480 Practicum in Kinesiology I Credit 3
This course provides the student with the initial experience field placement, observations, practice and program delivery in a professional setting. Students are required to select a facility and observe and become involved in an introductory experience. Prerequisites: PED 301, PED 306, PED 427.

PED 491 Facilities Management Lec. 3./Credit 3.
This course covers the planning stages of sport facilities through the completion of the facility. Also maintenance and upkeep of the facility will be extensively discussed.

PED 492 Practicum in Athletic Administration
Lec. 3./Credit 3.
This course provides the student with the initial experience in the actual management of a sport facility. Students are required to select a facility and observe and become involved in introductory experiences.

PED 493 Seminar in Athletic Administration
Sem. 1./Credit 1.
This seminar is conducted once a week by the instructor. The seminar is in direct relationship to the student internship experience. Students are required to submit in-depth reports on their internship experience.

PED 494 Internship Credit 12.
Students in this course will be assigned to schools, colleges, universities, commercial sport centers, health clubs, professional organizations and other sport management specific experiences.

PED 499 Independent Study Credit 3.
Reading and research in approved topics under the guidance of a faculty member of the department. Course may be repeated once for credit with a change in subject matter.

Kinesiology Courses

PED 208 Foundations of Kinesiology & Exercise Science Lecture 3/Credit 3
This introductory course is designed to explore the history, principles and concepts of Kinesiology and Exercise Science. Special emphasis on career options, applications, and terminology will be explored.

PED 362 Exercise and Sport Nutrition Lecture 3 / Credit 3
This course is a study of foods and their effects upon health, development, and physical performance. The biochemical and physiological processes of fuel mobilization, and storage with respect to exercise and the modification of those processes by nutritional variables. Special emphasis will be given to energy balance.placement, observations, practice and program delivery in a professional setting. Students are required to select a facility and observe and become involved in an introductory experience. Prerequisites: PED 301, PED 306, PED 427.

PED 481 Practicum in Kinesiology II Credit 3.
This course provides the student with an advanced experience field placement, observations, practice and program delivery in a professional setting. Students are required to select a facility and observe and become involved in a professional experience. Prerequisites: PED 301, PED 306, PED 427, PED 480 (Practicum I).

PED 402 Exercise Testing, Prescription and Assessment Lecture 3/Credit 3
Methods of measuring and evaluating physical performance. Emphasis is on the evaluation and assessment of health-related and performance-related variables of human work. Emphasis on graded exercise testing, body composition, muscular strength, flexibility, fitness/wellness screening and the implementation and prescription of exercise modalities based upon evaluation criteria. Prerequisites: PED 301, PED 306, PED 427.

Sport Administration Graduate Courses

PED 600 Sport Marketing Lec.3 /Credit 3.
The specific application of marketing principles and processes to sport products (e.g., teams, leagues, events, etc.). This course will focus on the production, product distribution, promotion and pricing of a sport business product to satisfy the needs of the consumers and meeting the company's objectives.

PED 601 Sport Law Lec.3 /Credit 3.
Students enrolled in this course will learn legal issues within the sport industry, in educational settings and within the community in which individuals have access to fitness equipment and playground equipment. Sponsorship law including the protection of intellectual property, property acquisitions and leasing of sporting facilities, player, team and public security/ safety advices will be examined.

PED 602 Sport Finance Lec.3 /Credit 3.
This course is designed to ground students in the real world of financial management in sport, showing them how to apply financial concepts and appreciate the importance of finance in sound sport management and operations.

PED 611 Research Methods Lec.3 /Credit 3.
The basic process for conducting research involving asking a question, designing a study, collecting data, analyzing results, reaching conclusions and sharing the findings.

PED 615 Advanced Marketing–Applied Research and Sales Lec.3 /Credit 3.
Students will focus on social and economic trends or governmental regulations, contemporary approaches to marketing and entrepreneurship.

PED 616 Public Relations and New Media Lec.3 /Credit 3.
Students will learn the art and science of establishing and promoting a favorable relationship with the public as it relates to the sport industry.

PED 619 NCAA Compliance Lec.3 /Credit 3.
Intercollegiate matters concerning the compliance of athletics programs with the bylaws set forth by the National Collegiate Athletic Association. Topics include: rules for competition, recruiting, and graduation.

PED 620 Sport Governance Lec.3 /Credit 3.
This course will focus on the power, politics, policies, power and procedures within sport organizations. State, national and international sport organizations will be compared along with the impact of sport globalization.

PED 621 International World Business Lec.3 /Credit 3.
A comparative investigation of the U.S. and other world markets. Topics for this course include: global trade, culture, finance, education, insurance, law, logistics and marketing.

PED 622 Global Brand Management Lec.3 /Credit 3.
Students will learn the various markets and compare issues in order to determine how best to manage the brand globally.

PED 623 Sport and Social Responsibility Lec.3 /Credit 3.
This course critically examines the interconnected concepts of organizational ethics and their significant role in developing a sport organization's mission, culture, strategic plan, operational policies, leadership style, work environment, marketing approach, and customer service. Through analytical discussions of ethical systems and case study analyses, this course enables the development of a framework for understanding an organization's social responsibility, for improving an organization's integrity, and for the development of a personal professional code of ethics.

PED 624 Organizational Leadership in Sport Administration Lec.3/Credit 3.
Recognizing the peculiar relationships that form among people joined together in a collaborative effort and leading those people to accomplish a common goal. Students will analyze leadership styles and the effects of each.

PED 625 Race and Ethnicity in Sport Administration
Lec.3 /Credit 3.

Series of advanced topics in race and ethnicity and its influence in the sport industry. Course includes topics in Patterns of change in terms of race, and ethnicity in sport, inclusion or exclusion from sport on the basis of race or ethnicity, policy innovations with respect to race and ethnicity in sport, management initiatives with respect to race and ethnicity in sport, sport for culturally and linguistically diverse (CALD) communities, career opportunities in and around sport for CALD communities, sports stars as role models for CALD communities, sport and gender differences in CALD communities, assumptions of athletic ability according to race or ethnicity, media representations of race and ethnicity in sport.

PED 626 Gender Issues in Sport Administration
Lec.3 /Credit 3.

Participation and equity issues in sports. Topics include: The global women's rights movement, increased media coverage of women in sports, underrepresentation of women in decision-making positions in sports, homophobia, trivialization of women's sports, and Title IX.

PED 627 Sport Nutrition Lec.3 /Credit 3.

Designing proper sports nutrition and eating to fuel workouts and improve sports performance. Favorite foods for exercise recovery, eating healthy on a budget, eating before exercise, foods for athletic competition, energy pathways for exercise, How carbohydrate, fat and protein fuels exercise, post-exercise meal, high protein diets and sports performance.

PED 628 Event Management/Facilities Maintenance
Lec.3 /Credit 3.

Event management from developing the concept right through to the post-event monitoring and evaluation; maintaining sport facilities. Topics include: budget management, roles and responsibilities, action plans and timescales, all aspects of event health and safety, including the development of event safety management plans, child welfare, risk assessments, traffic management and insurance and liability issues, branding and signage, on the day coordination, logistics and the recruitment, development and management of volunteers.

PED 631 Internship Credit 6

Field Experience. Students will have supervised practical training within the sport industry. Students must complete twelve weeks of training under an approved supervisor.

PED 632 Thesis Credit 6

Faculty-supervised research project on a topic related to the student's chosen concentration.

PHA (Pharmacy)

PHA 300 Quantitative Laboratory Techniques
Lab. 2./Credit 2.

This course will introduce the theory of the classical and modern laboratory to accurately determine the concentration, amount, or percentage of one or more elements of pharmaceuticals. The course content will cover the following areas: I) laboratory skills in design and in performing a quantitative chemical and biological analysis; 2) the technique in laboratory data collection and recording in pharmaceutical laboratories; 3) Importance of accuracy and precision of laboratory results; and 4) the interpretation and critical evaluation of the experimental results.

PHA 303 Introduction to Pharmacy Practice
Lec. 2./Credit 2.

This course provides the student with an introduction to pharmacy practice experiences. Students will be exposed to developmental topics, learn how the pharmacy runs, and become oriented to the workflow and layout of the dispensing area, all of which prepare students for their Introductory Pharmacy Practice Experiences. This course will also serve as an introduction to over-the-counter medications and products as well as the top 200 drugs.

PHA 305 Applied Human Physiology Lec. 3./Credit 3.

This course will introduce the fundamental principles of human physiology. Concepts are reviewed using systems-based approach, with particular emphasis on cellular physiology, neuroendocrine, renal, and cardiovascular system physiology. Basic principles of pathophysiology and human disease will be introduced.

PHA 307 Principles of Pharmacology Lec. 1./Credit 1.

This course will provide students with a fundamental understanding of how medications interact with biological systems as well as the basic rationale behind the design and utilization of drugs in disease states. An introduction to core principles of pharmacology will be discussed, including receptor biology and signal transduction pathways, basic pharmacokinetics and pharmacodynamics, routes of administration, drug metabolism and transport, drug therapy in special population, principles of drug targeting and drug development and basic pharmacogenomics.

PHA 308 Pharmacology & Pathophysiology I
Lec. 4./Credit 4.

This sequence of courses are organized by disease states/organ systems and provide each student with basic knowledge of pathophysiology and pharmacology, thus enabling them to manage disease states, establish rational treatment and realistic outcomes, and provide parameters to monitor the progression of disease.

PHA 310 Medical Immunology Lec. 2./Credit 2.

This course will discuss the function of the immune system, including mechanisms of human immune function, and the immunologic basis of oncologic and autoimmune diseases, immunodeficiency, hypersensitivities and allergic reactions.

PHA 311 Physiological Chemistry Lec. 3./Credit 3.
This course provides an overview of the chemical and physical properties of biomolecules, including carbohydrates, proteins, enzymes, lipids, nucleic acids, and vitamins. It focuses on the relationship of organic functional groups to these properties and their role in the activity of drugs. The course also focuses on intermediary metabolism and chemical interconversions in living systems.

PHA 312 Drug Discovery, Design, and Development Lec. 3./Credit 3.
This course will provide students with a fundamental knowledge of drug discovery, design, and development with a pre-clinical focus. This knowledge includes both conventional, historical, and contemporary approaches to sourcing and developing new drugs, from natural sources through to rational drug design, lead optimization, and both in vitro and in vivo screening approaches for drug efficacy and safety, including computer-based methods, combinatorial chemistry, and high-throughput screening.

PHA 314 Medicinal Chemistry I Lec. 4./Credit 4.
The focus of this two-course sequence is the chemistry of natural and synthetic drug entities, their physicochemical properties, methods of synthesis, sources, derivatives, modes of biotransformation, and structure activity relationships. In this course, a concerted effort is made to link the chemical structure of drugs to their pharmacological/pharmacokinetic/toxicity profiles. Prerequisites: PHA 314 Successful completion of PHA 311

PHA 315 Pharmacists' Patient Care Process (PPCP) Lec. 3/Credit 3.
This course will introduce the concept of patient-centered care, and how to apply the pharmacists' patient care process to optimize health and medication outcomes. The particular focus of this course will be on collecting and assessing subjective patient data, including developing patient interviewing skills, review of health records and methods of medical documentation, with an emphasis on the importance of utilizing the data to formulate, implement, and follow-up on a care plan.

PHA 316 Principles of Drug Information Lec. 3./Credit 3.
Drug information and informatics will be the primary focus of this course. Principles of drug information, drug information retrieval and analysis, literature evaluation, and verbal and written communication skills will be emphasized. Students will be able to utilize the drug information skills learned in this course to provide optimal pharmaceutical care in any pharmacy practice setting.

PHA 317 Pharmaceutical Analysis Lab. 3./Credit 3.
This course explores the fundamentals of pharmaceutical analysis techniques and their applications in pharmaceutical research and development (both academic and industrial). Students receive a solid conceptual ground to understand the utility of particular analytical methods. It enables students to evaluate instrumentation choices when needed critically and to select the appropriate tools.

PHA 318 Responsible Conduct of Research Lec. 1./Credit 1.
This course familiarizes students with fundamental ethical issues in research. Course goals include l) gaining insights into responsible conduct of research, 2) acquiring knowledge on how to address the ethical problems appropriately, and 3) comprehending ethical issues and how to mitigate these situations. The seminars explore the best practices in research and experimental design, authorship, data management and record-keeping, intellectual property and ownership of data, as well as research misconduct and rigor and transparency, and discussion sessions focusing on ethical considerations for human and animal research subjects, conflicts of interest, mentoring, collaborations, peer review, laboratory safety, and research training, and environmental and societal impacts of scientific research. Note: This course meets or exceeds recent NIH Updates on the Requirement for Instruction in the Responsible Conduct of Research (NOT-OD-10-019; requirements for instruction in the responsible conduct of research.

PHA 319 Pharmaceutical Calculations I Lec. 2./Credit 2.
Pharmaceutical Calculations I will provide students with their first exposure to basic pharmaceutical calculations. This course is designed to provide students with information about basic medication orders/prescriptions and the mathematical calculations and abbreviations needed for interpretation of prescriptions.

PHA 326 Pharmaceutical Calculations II Lec. 1./Credit 1
This course will continue to develop student knowledge by application of basic pharmaceutical calculations. Also, students will be introduced to basic clinical and pharmacokinetic calculations.

PHA 370 Community IPPE Credit 1.
An introductory pharmacy practice experience (IPPE) designed to assist the student in actively participating in and experiencing the distributive functions of pharmacy in the community pharmacy practice setting. The community pharmacy practice setting experience is divided into six main areas of experience: prescription processing and compounding, over the counter products, patient counseling and education, pharmacy administration and management, pharmacy law, and team interaction/education. Prerequisites: Successful completion of all P-1 level didactic courses.

PHA 371 Biopharmaceutics I Lec. 3./Credit 3.
This course is designed to help students to understand physico-chemical and biological factors, which affect the stability, kinetics, bioavailability and bioequivalence of drugs in dosage forms. It will also focus on the design, preparation, evaluation and use of liquid dosage forms. Calculations, metrology, and laboratory exercises are also emphasized.

PHA 373 Biopharmaceutics I Lab Lab. 3./Credit 1.
This course is designed to help students to understand physico-chemical and biological factors, which affect the stability, kinetics, bioavailability and bioequivalence of drugs in dosage forms. It will also focus on the design, preparation, evaluation and use of liquid dosage forms. Calculations, metrology, and laboratory exercises are also emphasized.

PHA 372 Biopharmaceutics I Lec. 3./Credit 3.
This course is designed to help students to understand physico-chemical and biological factors, which affect the stability, kinetics, bioavailability and bioequivalence of drugs in dosage forms. It will also focus on the design, preparation, evaluation and use of liquid dosage forms. Calculations, metrology, and laboratory exercises are also emphasized.

PHA 374 Biopharmaceutics I Lab Lab. 3./Credit 1.
This course is designed to help students to understand physico-chemical and biological factors, which affect the stability, kinetics, bioavailability and bioequivalence of drugs in dosage forms. It will also focus on the design, preparation, evaluation and use of liquid dosage forms. Calculations, metrology, and laboratory exercises are also emphasized.

PHA 399 Research Capstone Credit 0.
Capstone course designed to provide students with an opportunity to demonstrate their knowledge and apply theory to practice through a practical experience in a research environment.

PHA 405 Pharmacology & Pathophysiology II Lec. 4./Credit 4.
This sequence of courses are organized by disease states/organ systems and provide each student with basic knowledge of pathophysiology and pharmacology, thus enabling them to manage disease states, establish rational treatment and realistic outcomes, and provide parameters to monitor the progression of disease.

PHA 406 Pharmacology & Pathophysiology III Lec. 4./Credit 4.
This sequence of courses are organized by disease states/organ systems and provide each student with basic knowledge of pathophysiology and pharmacology, thus enabling them to manage disease states, establish rational treatment and realistic outcomes, and provide parameters to monitor the progression of disease.

PHA 410 Therapeutics I Lec. 3./Credit 3.
This systems-based course series will develop student knowledge and skills for therapeutic management of disease, based on application of medicinal chemistry, pharmacology, physiology, and pathophysiology concepts. The first course in this series will review selected diseases of the gastrointestinal system and nutrition, and discuss strategies for patient evaluation and treatment.

PHA 412 Therapeutics II Lec. 3/Credit 3.
This systems-based course series will develop student knowledge and skills for therapeutic management of disease, based on application of medicinal chemistry, pharmacology, physiology, and pathophysiology concepts. The second course in this series will review selected neurological and psychiatric diseases, and discuss strategies for patient evaluation and treatment.

PHA 413 Medicinal Chemistry II Lec. 4./Credit 4.
The focus of this two-course sequence is the chemistry of natural and synthetic drug entities, their physicochemical properties, methods of synthesis, sources, derivatives, modes of biotransformation, and structure activity relationships. In this course, a concerted effort is made to link the chemical structure of drugs to their pharmacological/pharmacokinetic/toxicity profiles. Prerequisites: PHA 413 Successful completion of all P-1 level courses.

PHA 415 Pharmacists' Patient Care Process (PPCP) Lec. 3/Credit 3.
This course will introduce the concept of patient-centered care, and how to apply the pharmacists' patient care process to optimize health and medication outcomes. The particular focus of this course will be on collecting and assessing subjective patient data, including developing patient interviewing skills, review of health records and methods of medical documentation, with an emphasis on the importance of utilizing the data to formulate, implement, and follow-up on a care plan.

PHA 416 Biostatistics and Research Methods Lec. 3./Credit 3
This course introduces students to the basic concepts of biostatistics and research. Basic concepts will include understanding the research question, hypothesis, methodology, data collection and analysis, results, and conclusion. Students will develop and write a mini proposal that encompasses these basic principles. This proposal will be implemented and completed by the end of the course. Students will also gain experience with writing abstracts and developing scientific posters to present findings of research studies. Prerequisite: Successful completion of all P-1 level courses.

PHA 417 PPCP Skills Lab Lab 3./Credit 1.
This course will develop knowledge and skills in pharmacist patient assessment techniques. Students will learn to perform basic patient subjective and objective assessment related to provision of patient care, including patient interviewing, obtaining medical history, vital signs assessment, and point-of-care testing.

PHA 418 Applied Therapeutics Laboratory I Lab. 3/Credit 1.
In this course series, students will apply knowledge of the pharmacist's patient care process to formulate, implement, and follow-up on a care plan for the disease management of patient case-based scenarios across a variety of clinical settings. Disease states discussed will be integrated with concurrent topics assessed in the Therapeutics I—II course series. As the course series progresses, increasing complexity will be applied, incorporating comorbidities and complicated patient courses based on previously acquired pharmacotherapy knowledge.

PHA 420 Principles of Toxicology Lec. 2./Credit 2.
This course provides the basic concepts of toxicology. This course also serves to alert pharmacy students to commonly occurring exposures; to instruct students as to what symptoms are presented and the actions or recommendations to make in instances of accidental poisoning.

PHA 431 Healthcare Administration I Lec. 2./Credit 2.
This course focuses on the structure and organization, delivery, regulation, and financing of the American healthcare system. Pharmacy, its role and responsibilities in the healthcare system, public health, and its interaction with other health occupations is discussed. Reimbursement issues in healthcare are introduced and implications upon the practice of health care are discussed. This course covers the functions of management and administration (planning, organization, staffing, direction, and controlling) applied to pharmacy practice in the community and institutional settings. Contemporary management principles for the solution of these problems are discussed, in addition to introduction to basic management principles and methods; and entrepreneurial, social and economical aspects of practice. Prerequisite: Successful completion of all P-1 level courses.

PHA 433 General Pharmacology I Lec. 3./Credit 3.
This course provides students with a fundamental understanding of how medications interact with biological systems as well as the primary rationale behind the design and utilization of drugs in disease states. The course content will focus on the core principles of pharmacology. Topics include receptor biology and signal transduction pathways, basic pharmacokinetics and pharmacodynamics, routes of administration, drug metabolism and transport, drug therapy/toxicology in special populations, principles of drug targeting and drug development, and basic pharmacogenomics.

PHA 434 General Pharmacology II Lec. 3./Credit 3.
The course provides each student with basic knowledge of pathophysiology and pharmacology, organized by disease states and organ systems. This approach enables students to manage disease states, establish rational treatment and realistic outcomes, and provide parameters to monitor the progression of the disease.

PHA 461 Pharmacokinetics Lec. 4./Credit 4.
This course is designed to provide the essential skills for employing pharmacokinetic principles in the selection and evaluation of drug therapy. It will focus on principles of drug therapy, evaluation, selection, and therapeutic monitoring with emphasis on clinically functional approaches to the design of dose regimens, and pharmacokinetics of select drugs in special patient populations and disease states. This course includes a required calculations laboratory period. Prerequisite: Successful completion of all P-1 level courses.

PHA 462 Pharmacokinetics Laboratory Lab. 3./Credit 1.
This course is designed to provide the essential skills for employing pharmacokinetic principles in the selection and evaluation of drug therapy. It will focus on principles of drug therapy, evaluation, selection, and therapeutic monitoring with emphasis on clinically functional approaches to the design of dose regimens, and pharmacokinetics of select drugs in special patient populations and disease states. This course includes a required calculations laboratory period. Prerequisite: Successful completion of all P-1 level courses.

PHA 470 Institutional IPPE Credit 1.
An introductory pharmacy practice experience (IPPE) designed to assist the student in actively participating in and experiencing the distributive functions of pharmacy in the institutional pharmacy practice settings. The institutional pharmacy practice experience is divided into seven main areas of experience: drug distribution, manufacturing activities, dissemination of drug and product information, patient counseling and education, pharmacy administration and management, pharmacy law, and team interaction/ education. Prerequisites: Successful completion of all P-2 level didactic courses.

PHA 499 Research Externship Credit 1.
By arrangement with a selected research setting, students engage in a supervised research experience.

PHA 501 Pharmaceutical Care V Lec. 3./Credit 3.
This course is designed to familiarize the student with nonprescription drugs and products or over-the-counter medications. Emphasis will be placed on the pharmacology of the drugs, potential disease states in which the drugs are utilized, self administration techniques, consideration in selection of a product, and patient counseling. Prerequisite: Successful completion of all P-1 and P-2 level courses.

PHA 511 Therapeutics IV Lec. 4./Credit 4.
This systems-based course series will develop student knowledge and skills for therapeutic management of disease, based on application of medicinal chemistry, pharmacology, physiology, and pathophysiology concepts. The third course in this series will review selected diseases of the respiratory system and cardiovascular system, and discuss strategies for patient evaluation and treatment.

PHA 513 Therapeutics IV Lec. 4./Credit 4.
This systems-based course series will develop student knowledge and skills for therapeutic management of disease, based on application of medicinal chemistry, pharmacology, physiology, and pathophysiology concepts. The fourth course in this series will review selected diseases of the renal system and endocrine system, and discuss strategies for patient evaluation and treatment.

PHA 515 Principles of Drug Design Lec. 2./Credit 2.
This course is designed to provide the interested student with specific information concerning those concepts and techniques involved in the identification and preparation of new drug entities. Successful completion of this course would provide the student with advanced knowledge concerning the chemical aspects of drug action and toxicity.

PHA 516 Therapeutics V Lec. 3./Credit 3.
This systems-based course series will develop student knowledge and skills for therapeutic management of disease, based on application of medicinal chemistry, pharmacology, physiology, and pathophysiology concepts. The fifth course in this series will review selected infectious diseases, and discuss strategies for patient evaluation and treatment.

PHA 517 Applied Therapeutics Laboratory II Lab. 3./Credit 1.
In this course series, students will apply knowledge of the pharmacist's patient care process to formulate, implement, and follow-up on a care plan for the disease management of patient case-based scenarios across a variety of clinical settings. Disease states discussed will be integrated with concurrent topics assessed in the Therapeutics III—IV course series. As the course series progresses, increasing complexity will be applied, incorporating comorbidities and complicated patient courses based on previously acquired pharmacotherapy knowledge.

PHA 518 Therapeutics VI Lec. 3./Credit 3.
This systems-based course series will develop student knowledge and skills for therapeutic management of disease, based on application of medicinal chemistry, pharmacology, physiology, and pathophysiology concepts. The final course in this series will review selected rheumatologic, hematologic, and oncologic diseases, and discuss strategies for patient evaluation and treatment.

PHA 520 Applied Therapeutics Laboratory III Lab. 3./Credit 1.
In this course series, students will apply knowledge of the pharmacist's patient care process to formulate, implement, and follow-up on a care plan for the disease management of patient case-based scenarios across a variety of clinical settings. Disease states discussed will be integrated with concurrent topics assessed in the Therapeutics V-VI course series. As the course series progresses, increasing complexity will be applied, incorporating comorbidities and complicated patient courses based on previously acquired pharmacotherapy knowledge.

PHA 522 Toxicology and Poison Control Lec. 2./Credit 2.
This course provides the basic concepts of toxicology. This course also serves to alert pharmacy students to commonly occurring exposures; to instruct students as to what symptoms are presented and the actions or recommendations to make in instances of accidental poisoning.

PHA 532 Pharmacy Law and Ethics Lec. 2./Credit 2.
The basic principles of law are reviewed as they relate to the practice under federal, state, and local regulation. The special problems involving the control of narcotics, poisons, and other controlled substances are reviewed. Some laws relative to business activities and discussions of professional ethics are also included. Prerequisite: Successful completion of all P-1 and P-2 level courses.

PHA 533 Managed Health Care Lec. 2./Credit 2.
This course is designed to introduce professional pharmacy students to the complexity of our health care delivery system and to provide fundamental information on management of pharmaceuticals in various payer segments. Emphasis will be placed on understanding the key players in the healthcare system, the fundamentals of formulary management, key issues that affect the pharmaceutical industry, and opportunities for pharmacists in managed care.

PHA 534 Pharmacogenomics Lec. 2./Credit 2.
This course discusses how genes affect an individual's response to drugs. An understanding of pharmacogenomics requires dual understanding of the basics of genetics and pharmacology. Students will learn how individual genetic information can be used to tailor drugs to patients to maximize efficacy and minimize adverse drug reactions. Topics that will be covered include: fundamentals of pharmacogenomics, interpretation of pharmacogenomic test results, literature evaluation and use of evidence-based guidelines, case based scenarios and implementation of pharmacogenomics in health care settings.

PHA 535 Independent Study I Ind./Credit 2.
The objectives of the course are to provide students with an opportunity to explore and analyze health care topics in depth. The exploratory aspect of the course requires students to perform and complete an independent project (of their choice with approval by the course coordinators) related to an administrative principle, concept of trend that currently impacts the profession of pharmacy. The analytical aspect of the course requires students to participate in weekly briefings that will discuss traditional and controversial pharmacy administration issues.

PHA 536 Independent Study II Ind./Credit 2.
The objectives of the course are to provide students with an opportunity to explore and analyze health care topics in depth. The exploratory aspect of the course requires students to perform and complete an independent project (of their choice with approval by the course coordinators) related to an administrative principle, concept of trend that currently impacts the profession of pharmacy. The analytical aspect of the course requires students to participate in weekly briefings that will discuss traditional and controversial pharmacy administration issues. Students who complete PHA 535 must complete a different independent project for PHA 536.

PHA 539 Behavioral Psychology Lec. 2./Credit 2.
The student is provided with an understanding of behavioral psychology and in particular the psychology of the chronically ill. The course attempts to improve the professionalism exhibited by students in their patient interactions and their associations with other members of the health care team.

PHA 545 Healthcare Administration II Lec. 3./Credit 3.
This course will provide the students pharmacy management principles that relate to contemporary pharmacy practice and present an introduction to the fundamentals of health outcomes research and pharmacoeconomic analysis. The overall goals of this course are to familiarize the student and provide basic tools in order to develop and deliver patient-centered pharmaceutical care services. Students will be exposed to pharmacoeconomic articles and participate in discussions which will provide them with tools useful to address the difficulties associated with implementing programs. Through an active learning process, students will follow and interpret current issues that are shaping pharmaceutical and medical care as they discover the impact these events will have in shaping their future practice.

PHA 561 Analytical Methods in the Pharmaceutical Sciences Lec 2./Credit 2
This course sequence is designed to provide the student the opportunity to learn various assay procedures and research methodologies in chemistry, pharmacology, chemotherapy, pharmaceutics and enzymology.

PHA 562 Clinical Pharmacokinetics Lec. 2./Credit 2.
This course is designed to focus on strategies of developing and operating clinical pharmacokinetic or Therapeutic Drug Monitoring Services (TDMS). The course does not focus on manipulating pharmacokinetic equations to calculate drug dosages. It addresses the following areas: the environment in which the services are offered, the process involved in individualizing drug dosing, therapeutic/ pharmacodynamic monitoring and patient outcome assessment. The course will further address more detailed dosing concepts in special populations than provided in the foundation course in pharmacokinetics.

PHA 563 Introduction to Public Health Lec. 2./Credit 2.
The objective of this elective course is to provide students with an understanding of the concepts and the importance of public health as a science and its goal of maximum health for all. Students will gain a thorough understanding of public health promotion and disease prevention strategies especially relating to underserved, at-risk populations.

PHA 564 Advanced Dosage Form Technology Lec. 2./Credit 2.
This course will be concerned with the design, the technology, engineering principles and the biopharmaceutical aspects of non-sterile dosage forms. The course will guide the student from discovery of a new drug substance to the final delivery system. Initially the student will learn the physical-chemical information required by the industrial formulator, how it is collected and how it is used to decide on the final dosage forms.

PHA 570 Elective IPPE Credit 1.
The elective introductory pharmacy practice experience (IPPE) is designed to expose students to additional areas of pharmacy practice. Elective opportunities are available in administration, association management, consulting, disease state management, geriatrics, home health, managed care, nuclear pharmacy, nutrition, oncology, pharmaceutical industry, regulatory affairs, and toxicology. Other elective opportunities are available upon approval by the Director of Experiential Education. Prerequisites: Successful completion of all P-1, P-2 and P-3 level didactic courses.

PHA 572 Alternative Medicine Lec. 2./Credit 2.
This course is designed to provide the student with a basic knowledge about alternative practices used by patients as a self-medication option or in conjunction with physician ordered procedures in the United States as well as in other countries. The course's approach is to present pharmacy students with the intellectual foundations and tools to understand the great diversity among different cultures in their self-medication practices. The student will be exposed to current information on herbs that are available in U.S. pharmacies so they can offer counseling to patients on the. risks and benefits of using alternative medicine.

PHA 574 Pharmacy Practice Lab Lab 4./Credit 4.
This laboratory experience will simulate the actual practice of pharmacy in both retail and institutional settings. Students will learn the fundamentals of processing and filling a prescription or doctor's drug order. He or she will gain experience in compounding medications, preparing sterile products, recommending over-the-counter medications, and counseling patients. Prerequisite: Successful completion of all P-1, P-2 level courses, and P-3 Fall semester courses. Exceptions to this prerequisite policy will only be granted at the Dean's discretion.

PHA 576 Nuclear Pharmacy Lec. 2./Credit 2.
This course focuses on the study of radionuclides, their characteristics and detection, including the physics of radioactive decay, in-depth study of the interaction of radiation with matter and the primary means of detection. Emphasis is placed on the radio-nuclides used in medicine. Mathematics, as it pertains to the measurement of radioactivity, and the phenomena decay are covered in detail. Radiation protection and health physics are discussed as they apply to the practice of nuclear pharmacy.

PHA 577 Natural Products Lec. 2./Credit 2.
This course encompasses a study of drugs obtained from natural sources. The botanical and animal origins of such drugs, their historical importance, physiochemical properties, and their pharmacological applications are discussed. Basic terminology associated with the area of pharmacognosy as well as extraction and purification procedures for natural drugs are also discussed.

PHA 582 Drugs of Abuse Lec. 2./Credit 2.
This course is designed to give the student a basic introduction to the area of substance abuse and dependency. It is intended that upon completion of this course the student will have an appreciation for the terminology and diagnostic criteria appropriate to this area.

PHA 587 Health Disparities and Service Learning Lec. 2./Credit 2.
Students will become familiar with the nation's agenda for health improvement of its citizens. They will learn about health disparities in general, and focus on the six leading disparities identified in President Clinton's Health Initiative. Students will explore etiologies, statistics, severity, implications and possible solutions of the various disparities. Students will also be introduced to the concept of service learning and volunteerism in programs that target underserved populations. They will be shown how they can make a difference in their communities and the lives of the patients they serve.

PHA 590 Pediatric Pharmacotherapy Lec. 2./Credit 2.
The objective of the course is to present basic therapeutic principles and unique problems associated with pediatric drug therapy so that the students can more effectively participate in rational pediatric therapeutics.

PHA 592 Advance Nutritional/Metabolic Support Lec. 2./Credit 2.

In this course, the physiological theories of metabolic support in various disease states will be presented. This background information will be utilized by the students as they develop experience in assessing the patient's metabolic status, estimating the patient's nutritional requirements and formulating appropriate enteral or parenteral feedings.

PHA 594 Prescription Drug Therapy Review: Top 200 Drugs Lec. 2./Credit 2.

This course involves the study of the top 200 most commonly prescribed drugs. Students will learn trade names, generic names, available strengths, available dosage forms, appropriate dosing guidelines, common adverse drug reactions, patient counseling information and clinically significant drug-drug interactions.

PHA 595 Clinical Oncology Lec. 2./Credit 2.

This course provides an introduction to the pathology and treatment of neoplastic diseases with an emphasis on the patient and the application of clinical pharmacy concepts.

PHA 597 Geriatric Pharmacotherapy Lec. 2./Credit 2.

This course will review the basic physiological changes occurring with increasing age and define their impact on pharmacokinetics of drugs in the geriatric patient. Managerial, pharmaceutical, and consultant aspects of pharmacy services provided to long term care facilities and alternate types of care available to the elderly patient will be emphasized. Health care issues impacting geriatric patient care and future trends in pharmacy services for geriatric patients will also be presented. Students will attend geriatric case study presentations of senior Pharm. D. students and participate in discussions to gain experience with therapeutic uses.

PHA 650, 651, 652 Seminar I, II, III Sem. 1./Credit 1.

The Seminar Series is a three course requirement that is designed to provide students with the skills, techniques, and competencies required to successfully navigate the advanced clinical clerkship experiences. In addition this course provides the student an opportunity and experience in preparing and presenting pharmacy related topics to colleagues and other healthcare professionals in a formalized manner. Prerequisites: Successful completion of all P-1, P-2, and P-3 courses.

PHA 670 Community Pharmacy Practice Experience (APPE) Credit 4.

An advanced pharmacy practice experience designed to assist the student in actively participating and experiencing the distributive functions of pharmacy in the community pharmacy practice setting. The community pharmacy practice setting experience is divided into six main areas of experience: prescription processing and compounding, over the counter products, patient counseling and education, pharmacy administration and management, pharmacy law, and team interaction/education. Prerequisite: Successful completion of P-3 level courses.

PHA 671 Institutional Pharmacy Practice Experience (APPE) Credit 4.

An advanced pharmacy practice experience designed to assist the student in actively participating and experiencing the distributive functions of pharmacy in the institutional pharmacy practice settings. The institutional pharmacy practice experience is divided into seven main areas of experience: drug distribution, manufacturing activities, dissemination of drug and product information, patient counseling and education, pharmacy administration and management, pharmacy law, and team interaction/education. Prerequisite: Successful completion of P-3 level courses.

PHA 672 Community/Institutional Pharmacy Practice Experience (APPE) II Credit 4.

An advanced pharmacy practice experience designed to assist the student in actively participating and experiencing the distributive functions of pharmacy in the community, institutional, or other pharmacy practice settings, which provide distributive services of pharmaceuticals (nuclear pharmacy, long-term care, mail order, etc.). The pharmacy practice experience is designed to provide additional experience in the following areas: prescription processing and compounding, over the counter medications, drug distribution, manufacturing management, pharmacy law, and team interaction/ education. Prerequisite: Successful completion of P-3 level courses.

PHA 683 Geriatrics Credit 4.

This course focuses on inpatient and/or outpatient experiences in the care of the elderly. Objectives will include developing medication care plans (MCP) for patients who have diminished blood flow in concert with multiple disease states, frailty of body and spirit, diminished mental capacity, diminished mobility, and reduction in use of senses (e.g. sight, hearing). Attention will also be focused on developing the most economical MCP for persons with reduced or limited income. Simultaneous assignment to several inpatient facilities, home health care agencies, or home bound patients is likely. An understanding of the impact of Medicare and other insurance plans on the ability to deliver the best MCP is an objective for all assignment areas. Prerequisites: Successful completion of all P-3 level courses.

PHA 685 Administration/Management Credit 4.

This course is designed to expose the student to a variety of situations related to the running of a medical-related operation, including medical profession associations. The student will be paired with an administrative level preceptor from industry, chain pharmacy, hospital pharmacy, or professional organization. The five week rotation may be split among as many as three such experiences with no less than one week in any specific arena. Prerequisites: Successful completion of all P-3 level courses.

PHA 690 Internal Medicine I Credit 4.
The Internal Medicine I advanced pharmacy practice experience is designed to provide the student exposure and experience in comprehensive treatment of disease states of adult patients being cared for in an institutionalized setting. In addition, students will utilize problem-solving skills, develop therapeutic plans, monitor lab values, and assess for drug interactions and adverse drug reactions. Prerequisites: Successful completion of all P-3 level courses.

PHA 691 Ambulatory Care I Credit 4.
The Ambulatory Care I advanced pharmacy practice experience is designed to give students experience in treating patients who are typically not acutely ill in "out-patient" settings. These experiences could focus on the medication management of specific diseases (such as hypertension, diabetes, asthma, hyperlipidemia, etc.) or general care of patients with chronic conditions. Students will be involved in problem solving, patient medication counseling and therapeutic monitoring. In addition, they will address drug interactions, side effects, and compliance issues in the care of these patients. Prerequisites: Successful completion of all P-3 level courses.

PHA 692 Ambulatory Care II Credit 4.
The Ambulatory Care II advanced pharmacy practice experience will focus on management of patients in specialized out-patient settings such as retail pharmacy, managed care, long-term care, home health care, and specialty clinics or programs. Prerequisites: Successful completion of all P-3 level courses.

PHA 693 Pediatrics Credit 4.
The pediatric advanced pharmacy practice experience provides students with the opportunity to learn how to effectively treat medical illnesses of infant and child patients. Students will learn the different treatment options and regimens utilized in this patient population and take into consideration the different pharmacokinetic profiles of drugs in infants and children. Common disease states that will be seen are pneumonia, asthma, epilepsy, diabetes, sickle cell, trauma, and other common childhood diseases. Prerequisites: Successful completion of all P-3 level courses.

PHA 694 Psychiatry Credit 4.
The psychiatric advanced pharmacy practice experience provides students experience in treating acute as well as chronic psychiatric patients. Emphasis is on the initiation of medication, therapeutic monitoring, as well as medication stabilization and long-term treatment of psychiatric patients. Students will learn how to dose, treat, and monitor patients with mood disorders, schizophrenia, substance abuse disorders, cognitive disorders and other clinical psychiatric disorders. Prerequisites: Successful completion of all P-3 level courses.

PHA 695 Drug Information Credit 4.
This clerkship experience allows the student to serve as a primary provider of drug information in a structured environment that possesses both the resources and the faculty expertise in clinical information management and dissemination. Emphasis is placed on how to properly receive drug information requests, design and execute a systematic search strategy, assimilate the information retrieved, and formulate and communicate an appropriate response. The student continues to build their knowledge base of available drug information resources and gains practical experience in critically evaluating those resources. Students also prepare drug monographs and journal articles to further develop their medical writing skills. Prerequisites: Successful completion of all P-3 level courses.

PHA 696 Elective I Credit 4.
The elective rotation is designed to expose students to additional areas of pharmacy practice of their interest. Elective opportunities are available in administration, association management, consulting, disease state management, geriatrics, home health, managed care, nuclear, nutrition, oncology, pharmaceutical industry, regulatory affairs, and toxicology. Other elective opportunities are available upon approval by the Director of Experiential Education. Prerequisites: Successful completion of all P-3 level courses.

PHA 699 Internal Medicine II Credit 4.
The Internal Medicine II advanced pharmacy practice experience is designed to provide the student exposure and experience in comprehensive treatment of disease states of adult patients being cared for in an institutionalized setting. In addition, students will utilize problem-solving skills, develop therapeutic plans, monitor lab values, and assess for drug interactions and adverse drug reactions. Furthermore, students will be exposed to specialized internal medicine areas, such as hematology/oncology, ICU, CCU, surgery, general oncology and infectious diseases. Prerequisites: Successful completion of all P-3 level courses.

PHI (Philosophy)

PHI 203 History of Western Philosophy (1)
Lec. 3./Online/Credit 3.
A systematic treatment of principal philosophic ideas and movements in Western thinking from ancient Greece to the Renaissance.

PHI 204 History of Western Philosophy (2)
Lec. 3./Online/Credit 3.
Survey of the thought involved in the rise of modern science through existentialism and the contemporary period.

PHI 210 Logic and Scientific Method
Lec. 3./Online/Credit 3.
Study of both traditional logic and modern developments with particular stress upon their applications in area of communication and in natural and social sciences.

PHI 301 Contemporary Moral Problems Online/Credit 3.
This course focuses on developing the student's ability to engage in principled moral reasoning through an examination of classical and contemporary texts on ethics and discussions of particular moral dilemmas. Topics will be drawn from both the public and private sectors, including abortion, sexual harassment, distributive justice, capital punishment, and affirmative action.

PHI 304 Ethics Lec. 3./Online/Credit 3.
This course will examine the historical and philosophical development of ethics with particular attention to the moral implications of contemporary ethical problems. Emphasis is placed on the process of decision-making as it relates to the question.

PHI 305 Ethics and Leadership Online/Credit 3.
Examines the historic development and intellectual foundations of ethics with particular attention to the moral implications of contemporary ethical problems. Emphasis is placed on the process of decision.

PHT (Physical Therapy)

PHT 201 Introduction to Physical Therapy Lec. 2./Credit 2.
Exposure to various roles of the physical therapist through experiential and theoretical learning modules; issues and trends of physical therapy in the healthcare delivery system; basic skills and procedures which form the foundation of the physical therapy educational program. Prerequisite: Permission of the department chairperson. This course is open to undergraduates only.

PHT - Physical Therapy Graduate Only

PHT 600 Anatomy Lec. 3./Lab 6./Credit 6.
In this course, the student will learn the basic techniques of dissection and the components of the musculoskeletal system. Emphasis will be placed on the musculoskeletal system and corresponding nerves with review of the cardiovascular, pulmonary and integumentary systems. Students will learn surface anatomy and palpation techniques as part of the Anatomy Laboratory. Prerequisites: General Biology, Human Anatomy, Human Physiology.

PHT 602 Kinesiology Lec. 3./Lab 3./Credit 4.
In this course the student will learn the basic concepts of biomechanics. The course will cover how to describe motion and how to analyze human motion. Emphasis will be put on the description of the design and function of joints and muscles and pathokinesiology of movements. Principles of mechanics will be applied to human movement. Discussion of the impact of injuries on movement patterns will be based on direct observation or videotape of children, adults and older individuals. Prerequisites: College Physics, Human Anatomy.

PHT 604 Tests & Measurements Lec. 4./Lab 3./Credit 5.
This course covers musculoskeletal assessment to include strength testing, joint motion, posture, sensation and girth. The student is introduced to background information on the basic principles of test standardization to enable him/her to perform a physical therapy assessment using critical and analytical observational skills, goniometric measurements, manual muscle measurements, girth measurement, and sensory testing. Prerequisites: Human Anatomy, Intro. to Statistics.

PHT 606 Exercise Physiology I Lec. 3./Credit 3.
This course outlines the physiological effects of exercise on the cardiovascular, pulmonary and musculoskeletal system. It explores the role of exercise in the development of strength, power, muscular endurance, and cardiovascular endurance in normal and physically impaired individuals of all ages. Application of testing procedures for treatment planning will be discussed. Prerequisites: Human Physiology, Human Anatomy, Chemistry.

PHT 607 Motor Control & Learning Lec. 2./Credit 2.
This is a two-part course designed to provide students the opportunity to learn topics in movement sciences throughout lifespan. The first part will emphasize basic theoretical concepts and principles of motor development, control, and learning to set for the foundation for application. The second part will emphasize application and discussions of the contemporary knowledge of motor control and learning to individuals with movement dysfunctions. This course will also introduce effective motor re-learning strategies for physical therapy intervention. Prerequisites: courses in curriculum sequence.

PHT 608 Human Development Lec. 3./Credit 3.
This course reviews the basic processes of biological and psychological and social development of humans. This course emphasizes the development of human behaviors from infancy to old age. The course will be in a discussion format where specific materials are related to human growth and development. Prerequisite: Introduction to Psychology.

PHT 609 PT Seminar I: The Profession Lec. 1./Credit 1.
This course is the first in a series of three courses focusing on orienting students to the philosophy and conceptual framework of the DPT curriculum. The principles of professional behavior in their role as students and future health care practitioners are emphasized as students learn the conceptual framework of the patient/ client management model using the Guide to Physical Therapy Practice. Prerequisites: courses in curriculum sequence.

PHT 610 Physical Therapy Procedures I
Lec. 3./Lab 3./Credit 4.

Introduction to evaluation principles and treatment procedures geared toward chronic illness, and simple musculoskeletal dysfunctions. The evaluations of sensation, muscle function, joint motion, posture, girth, and blood flow are important components of a comprehensive PT evaluation. The purpose of this course is to enable the student to master background information and the skills necessary to perform gross screening tests, posture evaluation, evaluations of arterial and nervous disorders, girth measurements, joint motions, using goniometric measurement and manual techniques, manual muscle testing, and sensory testing. Student will learn to ascertain information from a patient record, identify and record patient problem and evolve general treatment goals. The student is introduced to concepts in tests standardization, communication skills, teaching, patient management, including basic patient handling techniques, with in-depth coverage of the physical and physiological basis for the application of physical agents. Prerequisite: PHT 600, 604..

PHT 611 Basic Skills in Physical Therapy
Lec. 3./Lab 3./Credit 4.

This course is an introduction to basic physical therapy examination, patient management and mastery of basic intervention skills in common chronic or acute conditions involving the musculoskeletal system. This course will emphasize the process of chart review, observation of movement patterns, basic elements required to make a diagnosis. In this course students will also be taught the interpretation of basic data about range of motion, muscle strength, age considerations, socioeconomic status, and cultural environment to plan physical therapy interventions. The student is introduced to the disablement model as the basis for clinical decision-making. Intervention skills will also include training and teaching patient/client in the use of assistive devices, exercise equipment, transfers and application of moist heat and cold modalities. Prerequisites: courses curriculum sequence.

PHT 612 Pathology **Lec. 3./Credit 3.**

This Pathology Course is designed for the physical therapy student to meet the challenge of understanding the basic concepts of disease processes in the human body. The knowledge of disease processes will be helpful in the differential diagnosis process and the development of a treatment plan that include realistic goals and is consistent with prognosis of the disease. The course is divided into two parts. Part I is General Pathology, which deals with the basic principles and characteristics of disease processes that may involve any tissue or organ of the body and underlie all diseases. Part II is Systemic Pathology, which deals with the pathophysiologic processes that affect specific tissues and organ systems of the body. A clinical pathological approach i.e. ability to understand, interpret and correlate patients clinical signs and symptoms with the underlying pathophysiologic process will be emphasized. Prerequisites: courses in curriculum sequence.

PHT 614 Neuroscience I **Lec. 3./Credit 3.**

Introduction to neural systems and basic neuroanatomy/neurophysiology including cranial and peripheral nerves; brainstem, midbrain, and cortical anatomy; vascular brain anatomy; cellular neurophysiology, basic neuromuscular physiology; spinal reflexes; basic control systems applied to neural systems including segmental, motor control, oculomotor and postural control system; an introduction to neuroimaging and neural plasticity. One hour every week will be devoted to discussion of issues with clinical relevance in Physical Therapy. Prerequisites: Human Anatomy, Human Physiology.

PHT 615 Case Management Lab I **Lab 3./Credit 1.**

This is the first of four courses designed for students to develop problem solving and critical thinking skills while working in small groups with student centered learning. In this first course students will be given simple cases involving real patients or simulated cases with a discrete musculoskeletal problem (joint limitation and pain) as a result of a common disease process or injury in young adults, and the mature adult of various socioeconomic and cultural background. Students are encouraged to work collaboratively to identify and practice the steps of clinical decision making according to the patient/client management model. For each case the student is expected to identify the pathology, the impairments resulting from the pathology, the related functional limitations and the resulting disability, before establishing functional goals and a plan for intervention. A formal oral and written presentation of the case will be expected at the end of the course for each group. In this course students are also introduced to reflective evaluation using self-assessment and peer assessment after each group meeting and after the formal oral presentation. Prerequisites: courses in curriculum sequence.

PHT 616 Neuroscience II **Lec. 3./Credit 3.**

This course uses a regional approach to study the organization of the adult human nervous system. The topics covered include: peripheral nervous system (spinal and cranial nerves), spinal cord (segmental sensory and motor innervation), brainstem and cerebrum. In addition, the vestibular system and visual system will be covered with an emphasis on pathways related to posture and balance and the limbic system and mechanisms of learning and memory will also be discussed. The course will finish with an important topic for rehabilitation sciences, neuronal plasticity. Case studies will be used throughout the course to emphasize clinical application of material. Prerequisite: Successful completion of all previously required Physical Therapy courses in the curriculum sequence.

PHT 617 Physical Agents Lec. 2./Lab 3./Credit 3.
This course provides students the opportunity to develop clinical skills in assessment and intervention using manual therapy, electrotherapeutic procedures, and wound healing techniques. This course will emphasize the use of heat, cryotherapy, massage, ultrasound, and other therapeutic modalities in the intervention of patients with neuro-musculoskeletal and integumentary impairments. This course is based on a problem-solving approach for the selection and application of appropriate intervention strategies to manage pain, edema, motion limitation, muscle weakness, and tissue/wound healing. Intervention strategies and techniques including prevention of skin breakdown, dermal wound healing, and burn care will also be addressed. Clinical decision-making practice will be implemented throughout the course to design appropriate plan of care and modification of the intervention based on the ongoing assessment of physiological and physical response to the intervention. All content areas of this course are emphasized on having students synthesize the information presented for application to current clinical practice and research. Prerequisites: courses in curriculum sequence.

PHT 618 Research I Lec. 2./Credit 2.
This course is designed for the student to learn the basic language, logic, principles, concepts, and procedures of research including a review of statistics as they apply to quantitative and qualitative research. It also introduces the framework and terminology of evidence-based practice (EBP), which is built on the application of research into decision-making, for patient/client management in physical therapy. This course includes the processes of developing a clinical question, locating and accessing sources of evidence to answer that question, and the beginnings of abstracting the evidence for practice. Prerequisites: courses in curriculum sequence.

PHT 620 Pharmacology Lec. 2./Credit 2.
This course is designed to acquaint each student with the general principles of Pharmacology. Pharmacology is the Science that deals with the mechanism of action, utilization and adverse effects. Using this description, the classification of various therapeutic agents will be analyzed. Furthermore, the course will focus on concepts, principles and applications of pharmacotherapeutics used by the physical therapist in the management of physical disabilities, movement dysfunction and pain resulting from injury, disease, disability or other acute or chronic health related conditions. Prerequisites: courses in curriculum sequence.

PHT 622 Clinical Practicum I Clin./Credit 3.
The first clinical education experience will have supervised groups of students assisting in an exercise class in elder care centers, pool class, in gross motor groups with children, or doing postural screenings. Emphasis is on the development of communication skills, team work ability, observation skills, writing and teaching exercise programs. This clinical experience will be three (3) times a week for ten (10) weeks. Prerequisite: PHT 600, 610, 616, 620.

PHT 623 Case Management Lab II Lab 3./Credit 1.
This the second course required in the continuum of integration of all course materials covered in previous semesters and in the current semester using a clinical problem solving format. Cases presented in this course emphasize the examination, diagnosis, prognosis and intervention for real or simulated patients with neuromuscular disorders and underlying musculoskeletal dysfunction. Cases in this course will emphasize examination procedures, diagnostic process, intervention and outcome for neuromuscular dysfunction across the lifespan. In this course psychosocial adjustment to disability for the patient and the family/caregiver and financial ramifications of the disability are explored. Students are asked to analyze and synthesize the data collected from the examination to formulate a diagnosis using the Practice Patterns from the Guide to Physical Therapy Practice. Students are expected to use evidence available in the literature to support their intervention and evaluate outcomes. The product at the end of the course is a formal oral and written presentation of cases assigned involving demonstration of treatment interventions using videotapes. Students are also expected to conduct self-assessment and peer assessment after each group meeting and after the formal oral presentation.

PHT 625 PT Seminar II : Psychology of Disability Lec. 1./Credit 1.
This course has a major emphasis on the analysis of the physical therapist relationship with patients/clients, family and community Investigation through specific readings in the psychology of disability and the socio economic and cultural impacts on optimizing function for individuals with disability. Prerequisites: courses in curriculum sequence.

PHT 630 Prosthetics and Orthotics Lec. 3./Credit 3.
In this course students will learn to apply their knowledge of kinesiology, pathology and client management model to the care of individuals requiring prosthetic and orthotic devices. This course will also emphasize preventive foot care, pre and post surgical physical therapy interventions and functional rehabilitation of individuals with congenital, traumatic and circulatory conditions requiring prosthetic or orthotic devices. Prerequisites: courses in curriculum sequence.

PHT 631 Clinical Education I Credit 4.
This first clinical education experience occurs in the curriculum after students have completed their coursework in examination and intervention for the adult patient with orthopedic and neurologic dysfunction. During this clinical experience, the students are expected to develop an appreciation for the scope of the role of the physical therapist and how physical therapy interventions fit into the patient-centered model of health care delivery. Under the guidance of a clinical instructor, students will begin to apply the examination, evaluation, diagnosis, prognosis, and intervention skills learned this far in the curriculum with direct patient application. Over the clinical experience, students should become competent with chart review, patient interview, selection, administration, and interpretation of tests and measures, and in the analysis of test findings to establish a physical therapy diagnosis. It is expected that students at this level will need guidance in establishing prognosis and length of stay for the patients they treat, and integrate information to develop cost-effective and realistic plans of care. Students will develop their communication and group work skills when interacting with patients, caregivers, preceptors, and other members of the team working with the patient. Students will begin to develop competence in documenting the results of their examination, evaluation and diagnosis, establish therapy goals and plans of care, as well as patient progress in meeting established functional outcomes. Finally, students will begin to evaluate their performance and seek out resources to minimize deficiencies in identified areas. Prerequisites: courses in curriculum sequence.

PHT 632 Management of Musculoskeletal Disorders Lec. 3./Lab 3./Credit 4.
Evaluation and treatment of patients with musculoskeletal dysfunction is the primary focus of this course. Emphasis is put on a regional approach to the assessment and treatment of patients with dysfunction throughout the lifespan. Instruction will include the treatment of acute problems occurring in the joints, the extremities and the spine and treatment alternatives and rationales for musculoskeletal injuries including orthotics and splints. Prerequisite: PHT 600, 604, 612, 616.

PHT 633 Orthopedics II: Extremities Lec. 4./Credit 4.

PHT 634 Neurologic Management I Lec. 2./Lab 4./Credit 4.
The educational vision for this course is to develop reflective autonomous physical therapists qualified to maximize functioning and minimize disability in persons with Central Nervous System (CNS) Health Conditions. Teaching and learning strategies implemented facilitate the development of student professional affective, cognitive and psychomotor behaviors required for physical therapist practice. The course is sectioned into two units of study:. Healthcare Management of Persons with Brain Conditions; and,. Healthcare Management of Persons with Spinal Cord Conditions. Prerequisites: courses in curriculum sequence.

PHT 635 Cardiopulmonary Physical Therapy Lec. 3./Lab 3./Credit 4.
This course builds on the information provided in anatomy, neuroscience, basics skills in physical therapy practice and exercise physiology. It provides expanded exposure to the normal physiology of the cardiac, vascular and pulmonary system. Pathophysiology of specific cardiac and pulmonary conditions are explored as they relate to the functional performance, compensation for disease processes and implications for physical therapy patient/ client management over the life span. This course will also provide the students with the knowledge of decision-making strategies for contemporary clinical practice for patients/clients with multiple medical diagnoses. Prerequisites: courses in curriculum sequence.

PHT 636 Cardiopulmonary Lec. 4./Credit 4.

PHT 640 Case Management Lab III Lab 1./Credit 1
In this third course in the continuum of integration to develop and achieve competency in clinical problem solving, small groups of students are given real or simulated cases with non-critical multisystem disorders. In this course the emphasis is on formulating a diagnosis based on the data collected , adjust and or create interventions based on clinical decision making algorithms, use outcome assessment. Intervention strategies are expected to be supported by evidence gathered from the literature. Prerequisites: courses in curriculum sequence.

PHT 641 Clinical Education II Credit 4.
This course is the second full time clinical education experience occurs in the curriculum after students have completed additional coursework in examination and intervention for the adult patient with orthopedic and cardiopulmonary dysfunction. During this clinical experience, students are expected to show competence in review of the medical record; interview of the patient and his family; selection, implementation, and interpretation of tests and measurements; and in establishing a diagnosis. Students should be independent in establishing goals and physical therapy plan of care and in evaluating its effectiveness. Students should be able to document the results of the examination, evaluation, and diagnosis; therapy goals and intervention plans; and the patients' progress toward established outcomes. Students should demonstrate the communication skills needed to be effective in interacting with the patient and his family, team members, and the clinical instructor. In addition, students should be active in self-evaluation and in seeking out resources to meet identified deficiencies. Students are expected to justify his/her clinical decision-making. Students should be able to describe the health care delivery model in the facility and begin to analyze the implications of this model on clinical decisions about the length of stay, interventions, patient education, referral to community resources, and/or to other practitioners. Prerequisites: courses in curriculum sequence.

PHT 642 PT Seminar III : Ethics Lec. 2./Credit 2.
This course provides students a forum to discuss Practice issues and trends in Physical Therapy. Legal and ethical practice will be discussed in relation to ethical theory, practice regulations. Students will have an opportunity to explore problem analysis and clinical decision –making within an ethical framework. The impact of ethics and public policy on health care practice in general will be discussed. Prerequisites: courses in curriculum sequence.

PHT 643 Musculoskeletal Management I
Lec. 1.5./Lab 1.5./Credit 3.
The course is designed for learning and teaching entry-level physical therapy students the healthcare Process of Problem Solving for Individuals with Neuromusculoskeletal Disorders. The World Health Organization (WHO) concepts of Health, Functioning and Disability (ICIDH-2)1, together with the APTA Guide to Physical Therapist Practice 2 are used to structure Learning into four (four) study units: UNIT I: Principles of Healthcare for Individuals with Neuromusculoskeletal Disorders UNIT II. Individuals with Head, Neck, Spine & Pelvis Disorders. Prerequisites: courses in curriculum sequence.

PHT 644 Physical Therapy Procedures III
Lec. 3./Lab 3./Credit 5.
This course emphasizes the evaluation, testing and treatment procedures for common conditions affecting the pediatric population. Consideration of context, social environment and treatment environment will be discussed. Interdisciplinary treatment approaches for the pediatric patient will be discussed. Lab experiences will include practice on partners as well as demonstration and hands on experience with pediatric patients. In this course students will be expected to use published literature extensively for class discussion. Prerequisite: PHT 610, 616, 632.

PHT 645 Pediatrics Lec. 3./Lab 3./Credit 4.
This course is designed to prepare students to acquire safe, effective, and evidence-based pediatric physical therapy management skills for children with neuro-musculoskeletal, cardiopulmonary, and other pediatric physical therapy related impairments. This course utilizes the National Center for Medical Rehabilitation Research (NCMRR) model and the Guide to Physical Therapist Practice that include evaluation, differential diagnosis, treatment goals and plan, intervention strategies, and documentation of prognosis, progress, and functional outcome measures. This course emphasizes interaction with clients' family and multidisciplinary team members at various settings such as homes, schools, clinics, community centers, and hospitals to maximize the functional carry-over of the intervention. Prerequisites: courses in curriculum sequence.

PHT 647 Community Health Lec. 3./Credit 3.
This course is designed to guide the students in developing and implementing a plan for community involvement with the elderly, children, or the disadvantaged. Community involvement to promote wellness and prevention of movement disorders will be the focus of the professional involvement in these communities. Prerequisites: courses in curriculum sequence.

PHT 648 Clinical Practicum II Clin./Credit 5.
The second clinical affiliation experience allows the student to demonstrate patient evaluation and treatment skills in the areas of orthopedics and neurology in the hospital, skilled nursing facility, outpatient clinic, or rehabilitation center. Emphasis is on the development of critical thinking, communication skills, and documentation. Placement for these clinical experiences will primarily be local, however, some out of the area placements may be necessary. This clinical experience starts with one week of classroom sessions on campus with the ACCE followed by a full time rotation of 4 weeks in physical therapy facilities. Prerequisite: PHY 622, 630, 632.

PHT 649 Musculoskeletal Management II
Lec. 2./Lab 3./Credit 3
The course is designed for learning and teaching entry-level physical therapy students the healthcare Process of Problem Solving for Individuals with Neuro-musculoskeletal Disorders. The World Health Organization (WHO) concepts of Health, Functioning and Disability (ICIDH-2), together with the APTA Guide to Physical Therapist Practice are used to structure Learning into four (four) study units: UNIT I. Individuals with Lower Quarter Disorders. UNIT Individuals with Upper Quarter Disorders. Prerequisites: courses curriculum sequence.

PHT 650 Specialty Seminar Sem. 3./Credit 3.
This course is designed to refine assessment and therapeutic skills in specific PT specialties, cardiopulmonary, orthopedics, aquatics, pediatrics, burns, neurology and geriatrics. This course will consist of a series of lectures/demonstrations by clinical experts.
Prerequisite: PHT 616, 622, 632.

PHT 651 Neurologic Management II
Lec. 1.5./Lab 1.5./Credit 3.
The educational vision for this course is to develop reflective autonomous physical therapists qualified to maximize functioning and minimize disability in persons with Peripheral Nervous System (PNS) and Neuro-Muscular Health Conditions. Teaching and learning strategies implemented facilitate the development of student professional affective, cognitive and psychomotor behaviors required for physical therapist practice. The course is sectioned into two units of study: 1. Healthcare Management of Persons with Peripheral Nervous System Conditions; and, 2. Healthcare Management of Persons with Neuro-Muscular Conditions.
Prerequisites: courses curriculum sequence.

PHT 652 Research Seminar I Sem. 2./Credit 2.
Submission and implementation of a research proposal developed under the guidance of a faculty advisor. Prerequisite: PHT 618, 646.

PHT 653 Physical Therapy Administration and Management Lec. 3./Credit 3.
This course will provide students opportunities to develop managerial and supervisory skills in any healthcare setting where PT is provided. The health care system in the United states will be covered. The student will be exposed to topics as financial management, facility planning, writing business proposals, effective communication, human resources, leadership styles, delegation, time management, crisis management, risk management and legal considerations, consultation services, entrepreneurship, and management information systems. Business principles will be presented as they relate to ability to generate a budget, adhere to regulations and interactions with other professionals as team members or as administrators. Prerequisites PHT 622.

PHT 654 Ethics Lec. 3./Credit 3.
This course will introduce students to ethical and bioethical issues that confront health care professionals and practitioners within the practice setting. The course will introduce students to various ethical theories. The course will teach students to identify and analyze ethical problems. It will also familiarize students with ethical and legal considerations, patient-provider relationships and the concepts of moral judgement.
Prerequisite: PHT 650.

PHT 655 Physical Therapy Research II Lec. 2./Credit 2.
The purpose of this course is to apply the broad concepts of research methods and design in the framework of evidence-based practice to specific clinical problems. The student will find, organize, critically analyze, and document evidence found in physical therapy and related literature related to diagnosis, prognosis, intervention and outcome for patient/client management. Students will identify an EBP project to be completed in PHT 673 Research III and PHT 668 Research IV.

PHT 656 Physical Therapy Procedures IV Lec. 3./Lab 3./Credit 4.
Assessment and treatment strategies are presented for patients with neuromuscular, cardiopulmonary, musculoskeletal, immune dysfunction in the intensive care and acute period of recovery. Strategies for treatment and prognosis are explored using case studies, which include multiple systems disorders. Patient management issues are expanded to include orthotic prescription, adaptive equipment including wheelchair prescription and adaptive seating and modifications of architectural barriers.
Prerequisite: PHT 644, 650.

PHT 658 Professional Issues Lec. 2./Credit 2.
This course is designed to examine issues regarding PT practice. Students will integrate knowledge obtained in the classroom, the clinic and from the literature and current events to enhance their understanding of the current and future direction of the profession.
Prerequisite: PHT 616, 644.

PHT 659 Case Management Lab IV Lab 3./Credit 1.
This is the final course in a series of courses designed to enhance problem–solving, critical thinking skills in the examination, diagnosis, prognosis, intervention and outcome assessment of simulated cases with critical and non-critical multi-system involvement. The emphasis of this course will be the incorporation of students' knowledge and skills acquired in the classroom and in the clinic to be competent practitioners. Students are expected to use relevant research to guide clinical decisions and interventions. It is also expected that students are competent in addressing simple and complex problems throughout the lifespan. Competency in communication and collaboration with other health professionals in the evaluation of treatment outcomes, psychosocial and cultural aspects of health care are also expected. At the end of this course students should demonstrate good clinical judgment in the current healthcare environment, and incorporate in the problem-solving exercise all the elements of good physical care practice.

PHT 660 Clinical Practicum III Clin./Credit 3.
This course offers an interdisciplinary experience by allowing physical therapy students and nursing students to make dual visits to public health patients. Supervision will be provided by physical therapy and nursing faculty. Students will also be assigned to a home health physical therapist to evaluate and follow 3 patients. Students will have the opportunity to demonstrate ability in differential diagnosis, critical thinking, health care system knowledge, adaptation of physical therapy programs to the patient's environment, home evaluations, treatment planning and documentation, and advanced communication skills with professionals, families, and clients. Prerequisite: PHT 644, 648.

PHT 661 Clinical Education III Credits 4.
This is the third of four full-time clinical experiences. This clinical experience occurs after students have completed all coursework on examination, and interventions for the patient with orthopedic, neuromuscular, and cardiopulmonary dysfunction across the lifespan. In addition, students have completed administration and management, professional and ethical and legal issues and research. During this clinical experience, students are expected to show competence and independence in the comprehensive management of the adult patient with a simple musculoskeletal or neurological diagnosis and show competence with occasional guidance from the clinical instructor in the management of patients with complex multi-system diagnoses. Students are expected to seek out evidence for his or her clinical decisions on tests and treatment interventions. Students will also participate in non-directed patient care roles such as education of peers, and other healthcare professionals and fiscal management and reimbursement, research and consultation. Students are also expected to be active in self-assessment and in seeking resources to eliminate identified deficiencies or weaknesses.

PHT 662 Advanced Pediatrics Lec. 3./Credit 3.
This elective is to further evaluation, treatment, interdisciplinary approach and documentation skills in the physical therapy management of pediatric clients who exhibit movement dysfunction. This course will emphasize subjective, objective examination, making a Functional Diagnosis, incorporate family and other resources in the plan of care. Prerequisite: PHT 610, 614, 644, 648.

PHT 663 Special Topics Lec. 4./Credit 4.
This course is designed to refine assessment and therapeutic skills in specific PT specialties: alternate therapy, manual therapy, aquatics, pediatrics, geriatrics, health promotion, women's health, and sports medicine. This course will consist of a series of lectures/ demonstrations by clinical experts.

PHT 664 Differential Diagnosis Lec. 3./Credit 3.
This course is a distance education course including ten units covering the screening and examination of patients/clients and the clinical signs and symptoms of systemic dysfunctions. In this course students are expected to recognize signs and symptoms of disease processes that may masquerade as neuromusculoskeletal dysfunctions. The course will include the differential screening, interview process and overviews of clinical signs and symptoms for each system. This course provides students the skills of differential diagnosis in physical therapy that will prepare them to be competent practitioners in the current healthcare environment of independent practice under direct access laws.

PHT 665 Comprehensive Exam Part I Lec. 1./Credit 1.
This course is designed to prepare students for the Licensure Exam. The content outline of the Licensing Exam for physical therapists and the application process for licensure in any state will be reviewed based on publications by the Federation of State Boards of Physical Therapy. Students will establish a plan for the comprehensive review of materials covered in the three-year course of study. The emphasis of the course will be on strategies for test taking skills, practice drills for problem solving and critical thinking using multiple choice exam format.

PHT 666 Sports Medicine in Physical Therapy Lec. 2./Credit 2.
This course is designed to introduce the student to general principles of injury prevention, general and specific sports conditioning, and the rehabilitation of athletic injuries. The topics will address the needs of both the recreational and competitive athletes. Prerequisites: PHT 632, 660.

PHT 668 Research III Lec. 2./Credit 2.
This course is designed to individually guide students to begin their EBP project, which allows each student to apply EBP to the processes of examination, evaluation, diagnosis, prognosis, and interventions of selected conditions across the lifespan seen in physical therapy.

PHT 671 Clinical Education IV Cln./Credit 8.
This is the capstone 8-week clinical experience that occurs after students have completed all courses in the curriculum and 24 weeks of full time clinical experience. During this experience, students are expected to show competence and independence in the comprehensive management of patients across the lifespan with simple and complex multi-system diagnoses. Students are expected to seek out evidence for their clinical decisions in the clinical arena and seek advice from expert clinicians to guide their future career plans and explore areas of physical therapy practice that they plan to pursue. Students at this level are expected to perform at entry-level practice.

PHT 672 Research Seminar II Sem. 1./Credit 1.
Consultation in person or through electronic medium and in writing with research advisor about research project. Prerequisite: PHT 652.

PHT 673 Research IV Lec. 2./Credit 2.
This course is designed to individually guide students in completing and presenting their EBP projects.

PHT 674 Research Seminar III Pjt. /Credit 2.
Finalization of group research project under the guidance of an advisor. Preparation for presentation in state or national conferences for designated group projects.
Prerequisite: PHY 672.

PHT 675 Teaching & Learning Lec. 2./Credit 2.
This course is designed to provide information on learning and teaching methodology, planning of learning experiences, clinical teaching tools and strategies, formulation of objectives, effective feedback and performance evaluation within the context of adult education. This course will also address the issues of the effects of age and culture on learning styles and health interventions. The course includes lectures, discussion, small group learning experiences and a terminal project requiring application of didactic information.

PHT 676 Clinical Practicum V Clin./Credit 5.
This final clinical affiliation experience allows the student to be exposed to advanced skills in patient evaluation and treatment, administrative skills, research, supervision, and teaching. Any clinical skills needing additional attention can be scheduled during this affiliation time. Placement for these clinical experiences will be done by students with assistance from the faculty. This clinical experience will be for 5 weeks full-time at the beginning of the spring semester. Students will be at entry level of practice at the end of this clinical affiliation experience. Prerequisite: PHT 648, 660, 670.

PHT 677 Clinical Education V Cln./Credit 4.
Clinical Practice V documents the final 320 hours of clinical practice. During this experience, students are expected to show competence and independence in the comprehensive management of patients across the lifespan with simple and complex multi-system diagnoses. Students are expected to seek out evidence for their clinical decisions in the clinical arena and seek advice from expert clinicians to guide their future career plans and explore areas of physical therapy practice that they plan to pursue. Students at this level are expected to perform as novice autonomous practitioners.

PHT 678 Independent Study Credit 2.
Independent study in preparation for licensure examinations.

PHT 679 Comprehensive Exam Part II Credit 1.
The successful completion of a computerized final comprehensive exam is required for graduation. The format of the test is similar to the Licensure Exam that students will be required to pass in order to practice physical therapy in any state.

PHY (Physics)

PHY 110 Seminar Sem. 1./Credit 1.
Designed for freshman level undergraduates. Provides a discussion of physics topics by students, faculty and invited speakers. Emphasis will be placed on developing presentation skills.

PHY 117 Communications in Research I Sem. 1./Credit 1.
Designed for freshmen level undergraduates. Emphasis will be placed on developing basic scientific writing skills using standard scientific conventions that complement the Experimental Physics course. Corequisite: PHY 231.

PHY 120-121 Computational Physics I-II Lec. 2./Credit 2.
Designed for freshman level undergraduates. Basic techniques for computer modeling of physical systems with emphasis on topics in introductory physics. Corequisites: PHY 203H-204H, PHY 230-231.

PHY 160 Elementary Introduction to Nuclear Fusion Lec. 3./Credit 3.
Introduction to terminology of nuclear fusion. Definitions of plasma, temperature, Debye shielding, plasma parameters. Elementary concepts of: plasma criterion, mass energy relation, fusion reactions, magnetic fusion, inertial fusion, magnetic fusion devices, tokamak geometry, single particle motions in plasmas, plasmas as fluids, waves in plasmas, equilibrium and stability. Prerequisite: By placement or consent of the instructor.

PHY 191 Introduction to Research Topics in Physics Prj./Credit 1-3.
Designed for freshman level undergraduates. Emphasis will be placed upon introduction to areas of physics research, regular attendance at appropriate seminars, techniques of literature searches, and background study. This course may be taken twice. Prerequisite: Consent of the department chairperson.

PHY 200 General Physics Lec. 2./Lab 1./Credit 3.
Fundamental principles of mechanics, heat, sound, electricity, and optics. For education, and non-science majors.

PHY 201-202 Introductory Physics I-II Lec. 4./Credit 4.
The basic principles of mechanics, wave motion, thermal properties of matter, electricity, optics, and a survey of modern physics. Prerequisite: MAT 117; Corequisite: PHY 215-216.

PHY 203-204 Introductory Physics I-II with Calculus Lec. 3./Credit 3.
Introduction to physics for physics and science majors using more advanced mathematical approaches than PHY 201-202. Vectors, statics, torque, dynamics, Newton's laws, gravity, center of mass, momentum, impulse, work, energy, moment of inertia, angular momentum, elastic properties, fluids, oscillations, wave motion, sound, heat, temperature, and thermodynamics. Foundations of electricity, electric charge, Coulomb's law, Gauss's law, potential, capacitance, Ohm's law, dc circuits, magnetic field, Ampere's law, Faraday's law, Lenz's law, ac circuits. Geometrical and physical optics and introductory quantum physics. Corequisites: MAT 151 and PHY 215 for PHY 203; PHY 216 and MAT 152 for PHY 204.

PHY 205/APS 105 Elements of Astronomy Online/Credit 3.
An introduction to astronomy suitable for all students. The earth in space. Seasons, orbits, the sun and planets. The history of the earth and planets. NASA's exploration of the solar system with telescopes and spacecraft. Course includes evening observing with telescopes at Turner Observatory.

PHY 206/APS 106 Astronomy of Stars and Galaxies Lec. 3./Credit 3.
Second semester to PHY 205. The sun and stars. Supernovas and black holes. The universe and its origin and evolution. The Big Bang theory and cosmic inflation. NASA's space telescopes. Course includes evening observing with telescopes at Turner Observatory. Prerequisite: PHY 205.

PHY 210 Seminar Sem. 1./Credit 1.
Designed for sophomore level undergraduates. Provides a discussion of physics topics by students, faculty and invited speakers. Emphasis will be placed on developing presentation skills.

PHY 211-212 Modern Physics I-II (1-2) Lec. 3./Credit 3.
Relativity, quantum structure of atoms, photoelectric effect, Bohr theory, atomic spectra, Schroedinger's equation, nuclear models, radioactive decay, solid state physics and elementary particles. Corequisites: PHY 220-221, PHY 330-331.

PHY 215-216 Introductory Physics Lab I-II Lab 2./Credit 1
Introduction to experimental physics with experiments to complement the introductory physics courses. Physics I lab treats mechanics, heat and waves and has a Corequisite: PHY 201 or 203. Physics II lab treats electricity, magnetism, and geometrical optics and has a Corequisite: PHY 202 or 204.

PHY 217 Communications in Research II Sem. 1./Credit 1.
Designed for sophomore level undergraduates. Emphasis will be placed on developing scientific writing skills, conducting literature searches, and scientific referencing to complement the Experimental Physics course. Corequisite: PHY 331.

PHY 220-221 Computational Physics III-IV (1-2) Lec. 2./Credit 2.
Designed for sophomore level undergraduates. Advanced techniques for computer modeling of physical systems with emphasis on topics in modern physics. Corequisite: PHY 211212, PHY 330-331.

PHY 230-231 Experimental Physics I-II (1-2) Lab 1./Credit 1.
Designed for freshman level undergraduates. Introduction to experimental physics, data acquisition and statistical data analysis with emphasis on topics in introductory physics. Corequisites: PHY 120-121, PHY 203H-204H.

PHY 291 Basic Research Topics in Physics Prj./Credit 1-6.
Designed for sophomore level undergraduates. Emphasis will be placed upon introduction to basic techniques of conducting research and literature review, regular attendance at selected seminars, and directed work on a research project in physics. This course may be taken twice. Prerequisite: Consent of the research mentor.

PHY 300 Cooperative Work Study/Internship Credit 4-12.
The student is placed in an industrial or governmental laboratory to obtain practical experience in some area of physics. A minimum of nine weeks of full-time equivalent work is required for the Internship Program. A minimum of six months of full-time work is required for the Cooperative Work Study Program, and an additional nine weeks is required for governmental agencies. Written evaluation by a supervisor and a final report for the department chairman are required for each program. Prerequisite: Completion of sophomore level science courses and consent of the department chairman.

PHY 301-302 Mechanics I-II (1-2) Lec. 3./Credit 3.
Newton's laws, statics and dynamics of a particle and of rigid bodies, work and stability of equilibrium, oscillatory motion of a particle, systems of particles, central-force problem, accelerated reference frames, rigid body motion. Lagrangian and Hamiltonian dynamics, normal modes. Prerequisites: PHY 204 and MAT 152. Corequisite: MAT 251.

PHY/ APS 303 Meteorology Lec. 3./Credit 3.
Topics include the weather and the properties of the Earth's troposphere. Some fundamental aspects of atmospheric science such as scale heights, lapse rates, and hydrostatics are covered in this course. Corequisite: PHY 203 or permission of instructor.

PHY 305-306 Experimental Physics I-II
Lec. 2./Lab 3./Credit 3.
Special topics chosen from mechanics, sound, heat, light, electronics, and modern physics. Primarily for physics majors. Prerequisites: PHY 204.

PHY 307 Introduction to Space Sciences Lec. 3./Credit 3.
Topics include thermospheres, ionospheres, magnetospheres, the sun, stellar atmospheres, solar wind, the influence of the sun on planetary atmospheres, and sun-earth connections. Prerequisites: PHY 202 or PHY 204, PHY 206, MAT 130 or MAT 151.

PHY 310 Seminar Sem. 1./Credit 1.
Designed for junior level undergraduates. Provides a discussion of physics topics by students, faculty and invited speakers. Emphasis will be placed on developing presentation skills.

PHY 312 Thermodynamics (2) Lec. 3./Credit 3.
Thermodynamic systems, equations of state, first and second laws of thermodynamics, kinetic theory, Carnot cycle, heat transfer, statistical mechanics. Prerequisites: PHY 204 and MAT 251.

PHY 317 Communications in Research III
Sem. 1./Credit 1.
Designed for junior level undergraduates. Emphasis will be placed on developing scientific writing skills, at the level of standard scientific journals, using the American Institute of Physics Style Manual.

PHY 330-331 Experimental Physics III-IV (1-2)
Lab 1./Credit 1.
Designed for sophomore level undergraduates. Advanced techniques of experimental physics with emphasis on topics in modern physics. Corequisites: PHY 211-212, 217.

PHY 360 Introduction to Nuclear Fusion Lec. 3./Credit 3.
Concept of plasma, fusion, magnetic fusion, magnetic fusion devices, tokamaks, single particle motions, plasmas as fluids, waves in plasmas, diffusion and resistivity, equilibrium and stability, kinetic theory. Prerequisites: MAT 152 and PHY 204.

PHY 391 Intermediate Research Topics in Physics
Sem./Prj./Credit 1-9.
Designed for junior level undergraduates. Emphasis will be placed upon conducting directed research in physics with a designated research mentor and regular attendance at selected seminars. Review basic literature search techniques. This course may be taken twice. Prerequisite: Consent of the research mentor.

PHY 400 Seminar Sem. 1./Credit 1.
Discussion of current topics in physics by students, faculty, and invited speakers. Students enrolled must take the GRE Subject Test in Physics. Prerequisites: Senior classification, Physics or Applied Physics major.

PHY 410 Seminar Sem. 1./Credit 1.
Designed for senior level undergraduates. Provides a discussion of physics topics by students, faculty and invited speakers. Emphasis will be placed on developing presentation skills.

PHY 491 Senior Research Topics in Physics
Prj./Credit 1-12.
Designed for senior level undergraduates. Emphasis will be placed upon participating in an independent research project or making a major contribution to departmental research with a designated research mentor. The student will produce a publication qual ity research report or thesis. Regular attendance at the physics seminar series is also required. This course may be taken twice. Prerequisite: Consent of the research mentor.

PHY - Undergraduate/Graduate.

PHY 500 Capstone Thesis Sem. 3./Credit 3.
Successful completion of an in-depth technical report based on physics related research projects.

PHY 501-502 Electricity and Magnetism I-II (1-2)
Lec. 3./Credit 3.
Electrostatics, dielectrics, electrostatic energy, electric currents, Ohms law, Kirchhoff's law, magnetic fields, electromagnetic induction, AC networks, Maxwell's equations, electrostatic and magnetostatic boundary-value problems, vector wave equation, electromagnetic radiation from accelerated charges. Prerequisite: PHY 204 and MAT 251, or the equivalent.

PHY 505-506 Quantum Mechanics I-II (1-2)
Lec. 3./Credit 3.
General formalism of quantum mechanics: state space, Dirac notation, representations, and matrix mechanics. Angular momentum magnetic moments, identical particles and the exclusion principle: Many-electron atoms, the periodic table, Fermi and Bose gases. Perturbation theory: time independent theory, variational principle, time dependent theory.
Prerequisite: PHY 211.

PHY 507 Statistical Mechanics Lec. 3./Credit 3.
Introduction to probability, statistical mechanics and thermodynamics. Random variables, joint and conditional probability densities, functions of a random variable, Maxwell-Boltzmann, BoseEinstein, and Fermi-Dirac statistics. Partition functions, Lattice vibrations and normal modes.
Prerequisite: PHY 312.

PHY 511 Physical Optics (2) Lec. 3./Credit 3.
Review of geometrical optics, physical optics, simple optical instruments, interference, diffraction, absorption, scattering, polarization. Prerequisite: PHY 204 and MAT 251, or the equivalent.

PHY 515 Advanced Experimental Physics Lec. 3./Credit 3.
Laboratory course for selected senior undergraduate and first year graduate students only. Completion of a research project and report under the guidance of a faculty research advisor.

PHY 521-522 Mathematical Methods of Physics I-II (1-2) Lec. 3./Credit 3.
Matrices, complex variables, Fourier series and transforms, Laplace transforms, ordinary and partial differential equations, special functions and polynomials, Green's functions, operators. Prerequisite: MAT 251, or the equivalent.

PHY 526 Topics in Contemporary Physics Lec. 3./Credit 3.
In-depth treatment of selected topics and problems in physics of contemporary interest. Prerequisite: Approval of department chairman.

PHY - Physics Graduate Only

PHY 600 Graduate Physics Seminar Sem. 1./Credit 1.
Seminars on current departmental research and related activities.

PHY 601-602 Mathematical Methods of Physics I-II Lec. 3./Credit 3.
Mathematical methods of physics for graduate physics majors. Matrices, complex variables, Fourier series and transforms, Laplace transforms, ordinary and partial differential equations, special functions and polynomials, Green's function operators, orthogonal functions and expansions, boundary value problems. Prerequisite: Calculus III (MAT 251) and Ordinary Differential Equations (MAT 260).

PHY 604 Subatomic and Nuclear Physics Lec. 3./Credit 3.
Advanced treatment of nuclear energy levels, radioactivity, nuclear decay, isotopes, subatomic particles.

PHY 605 Theoretical Mechanics Lec. 3./Credit 3.
An analytical treatment of the statics and dynamics of particles and rigid bodies. Discussion of generalized coordinates and the Lagrangian.

PHY 607-608 Electromagnetic Theory I-II Lec. 3./Credit 3.
Electrostatics and magnetostatics, macroscopic media, Maxwell's equations, relativistic electrodynamics. Radiation from moving charges, electromagnetic waves and wave guides. A treatment of relativistic fields, accelerated charges, quantum radiation, and quantum electrodynamics.

PHY 611 Thermodynamics and Statistical Mechanics Lec. 3./Credit 3.
Thermodynamics and kinetic theory, microcanonical, canonical, and grand canonical ensembles, Bose-Einstein and Fermi-Dirac distributions.

PHY 613-614 Quantum Theory I-II Lec. 3./Credit 3.
Introduction to the physical basis of quantum mechanics. The Schrodinger equation stationary state for single particle systems, time dependent perturbation theory, radiation absorption and emission, identical particle systems, second quantization, Hartree-Fock equation.

PHY 616-617 Research Problems I-II Credit 1-12.
Research on problems leading to a thesis or dissertation.

PHY 620-621 Solid State Physics I-II Lec. 3./Credit 3.
Crystal structure, phonons, plasmons, electron transport properties, free electron model, Fermi surface, superconductivity, phase transitions.

PHY 624 Physics of Medicine Lec. 3./Credit 3.
Numerous applications of physics principles occur in medicine, biology, and physiology that are not directly covered in subspecialties. Examples are fluid flow dynamics encountered in the cardiovascular system, electrolytic solutions and membrane-ion transport phenomena, and absorption and dissolution of soluble gases.

PHY 625 Diagnostic Imaging Lec. 3./Credit 3.
General topics such as ionizing radiation sources, signal sources, cross-sectional image formation, and signal detection, as well as special requirements for procedures such as mammography and computed tomography (CT). Image generation from non-ionizing radiation sources will also be addressed.

PHY 626 Nuclear Medicine Lec. 3./Credit 3.
This course familiarizes students with gamma imaging instrumentation such as PET and SPECT, using scintillation and semi-conducting devices. The student should be able to describe the preparation, handling, and clinical applications of radiopharmaceuticals. Dosimetry and radiation safety will be presented.

PHY 627 Radiation Therapy Physics and Dosimetry Lec. 3./Credit 3.
This course is designed to teach the student the basics of radiological physics and dosimetry, beginning with the effects of ionizing radiation on biological systems. Radioactive decay and radiation interactions will be discussed, with an emphasis on energy transfer and dose deposition. Dosimetry relied heavily on applications of charged particle equilibrium, radiation equilibrium, and/or cavity theory, hence these areas will be covered in detail before practical dosimetry.

PHY 628 Health Physics – Radiation Protection
Lec. 3./Credit 3.
This course provides the basic connection between a broad spectrum of topics in microscopic interactions and cellular response. Emphasis is placed on detection apparatus and shielding analysis. This course provides a broad base supportive of the varied environments of medical physics.

PHY 629 Radiation Biology Lec. 3./Credit 3.
The biological consequences of ionizing radiation will be presented, as the effects of ionizing radiation occur in all fields of medical physics. Topics include cellular radiation biology, tissue and organ response, carcinogenesis, and genetic effects.

PHY 630-633 Clinical Rotation I-IV Credit 4.
This course provides the student hospital-based experience with commercially available and commonly used diagnostic and treatment instrumentation, including radiation therapy, gamma cameras, PET, CT, MRI, and particle acceleration. Clinical experience is a requisite for sitting ABR certification examinations. Maximum credit in clinical rotations is 16.

PHY 681 Thesis Credit 3.

PHY 700 Thesis Registration Credit 1.
This course documents continuation of data analysis, interpretation, and progress toward completion of the Master's Thesis in Physics for students in absentia. Credit earned does not count toward degree requirements. S/U grading only. Prerequisite: Registration for PHY 681 (Master's Thesis).

PHY 702 Master's Comprehensive Examination Credit 1.
This credit does not count towards the degree. S/U grading only.

PHY 703 Ph.D. Qualifying Examination Credit 1.
Graded S/U only. Passing grade of S is awarded upon successful completion of all four parts of this examination.

PHY 704-705 Advanced Solid State Physics I-II
Lec. 3./Credit 3.
Electron transport properties, free electron model, Fermi surface, band theory, electron-phonon interactions, magnetic field effects; phase transitions and critical phenomena, semiconductor theory and devices, optical absorption and excitons.

PHY 706 Advanced Theoretical Mechanics
Lec. 3./Credit 3.
Special Relativity in classical mechanics and introduction to continuous systems and fields.

PHY 707-708 Advanced Nuclear Physics I-II
Lec. 3./Credit 3.
Topics such as scattering theory, shell model, deformed nuclei, giant resonances, few body systems, many body systems, and QCD effects will be covered.

PHY 709 Elementary Particle Physics Lec. 3./Credit 3.
A survey of both the theoretical and experimental foundations of the standard model are presented. Topics include: the fundamental forces of nature, the basic constituents of matter, particle accelerators and detectors, grand unification theory, and high energy astrophysics.

PHY 710-711 Advanced Mathematical Physics I-II
Lec. 3./Credit 3.
Advanced mathematical concepts of theoretical and experimental physics. Development of advanced techniques and procedures for the statement of physical problems in mathematical terms and the interpretation of mathematical formulae.

PHY 712 Studies in Intermediate Energy Physics
Credit 1-6.
Overviews of the forefronts of Nuclear, Electronuclear (QED), Quantum Chromodynamics (QCD), Accelerator Physics, Astrophysics and other important issues and topics with emphasis on the Continuous Electron Beam Accelerator Facility (CEBAF).

PHY 713 Laser Physics Lec. 3./Credit 3.
The interaction of atoms and radiation, atomic structure, spontaneous and stimulated transitions, absorption and scattering, shapes of spectral lines, term level diagrams, radiative transfer, population inversion, laser oscillation, resonance modes in optical cavities, techniques of laser spectroscopy, wave guides.

PHY 714 Radiation and Detectors Lec. 3./Credit 3.
The generation, detection, and measurement of optical radiation, including cavity radiation, emissivity, pyrometry, radiometric measurements, detectors of radiation, sources of noise in detectors, homodyning and heterodyning, and imaging systems.

PHY 716-717 Advanced Plasma Physics I-II Lec. 3./Credit 3.
Selected topics such as plasma waves in magnetics fields, waves in a bounded plasma, applications of magnetohydrodynamics, pinch effects, magnetohydrodynamic waves, waves in cold, warm, hot isotropic, and hot magnetized plasmas, particle interactions in plasmas, Boltzmann and Fokker-Planck equations, transport processes in plasmas.

PHY 719-720 Advanced Quantum Mechanics I-II
Lec. 3./Credit 3.
Negative energy sea, Fields and second quantization, Dirac equation, Kline-Gordon equation, path integrals, electron scattering, Feynman rules, many body systems, field theory approaches, and QCD effects will be covered.

PHY 722 Quantum Electronics I Lec. 3./Credit 3.
Propagation and interactions in optical waveguides. Waveguide modes; modes of the optical fiber; pulse broadening; stimulated emission in semiconductors, fiber coupling; receivers, noise analysis, coherent communication.

PHY 723 Nonlinear Optics Lec. 3./Credit 3.
Nonlinear polarization: harmonic generation, parametric amplification, self-phase modulation, wavefront conversion, pulse propagation in fibers and propagation in nonlinear media. Picosecond and femtosecond pulse generation and measurement techniques.

PHY 725 Atomic and Molecular Spectroscopy Lec. 3./Credit 3.
Atomic and molecular structure, radiation and scattering processes, optical spectroscopy, laser spectroscopy, high-resolution laser spectroscopy and laser-spectroscopic applications.

PHY 726 Special Topics in Remote Sensing I-II Sem. 3./Credit 3.
Atmospheric radiation, optical propagation, scattering, absorption. Active and passive instruments. Capabilities of lidar techniques, transmitter and receiver design, noise sources. This course may be taken for credit more than one time as the topic changes.

PHY 728 Quantum Electronics II Lec. 3./Credit 3.
Lorentz model and two-level model of the atom; optical Bloch equation and the atomic density matrix, relaxation phenomena and line-widths, optical pulse propagation, nonlinear spectroscopy.

PHY 731-732 Special Topics in Condensed Matter Physics I-II Sem. 3./Credit 3.
In-depth treatment of selected topics in condensed matter physics that address research interests of the department, e.g. optical properties of semiconductors; radiation damage in solids; transport, magnetic and superconducting properties of solids; and crystallography. This course may be taken for credit more than one time as the topic changes.

PHY 733-734 Special Topics in Optical Physics I-II Sem. 3./Credit 3.
Special topics in Optical Physics of current interest to faculty and students, such as quantum optics, optoelectronic systems, laser physics, optical chaos. nonlinear spectroscopy. This course may be taken for credit more than one time as the topic changes.

PHY 735-736 Special Topics in Nuclear Physics I-II Sem. 3./Credit 3.
In-depth treatment of selected topics in nuclear physics that address research interests of the department, e.g. antimatter, QCD, relativistic nuclear physics, QED, and galactic radiation. This course may be taken for credit more than one time as the topic changes.

PHY 737-738 Special Topics in Plasma Physics I-II Sem. 3./Credit 3.
In-depth treatment of selected topics in plasma physics that address research interests of the department, e.g. plasma dynamics, surface discharges, transport equations, and kinetic theory. This course may be taken for credit more than one time as the topic changes.

PHY 740-741 Advanced Studies in Intermediate Energy Physics I-II Lec. 3./Credit 3.
In-depth experimental and theoretical topics in the forefront of Nuclear and High Energy Physics,, Astrophysics, and other important issues and topics related to major laboratories and research groups from around the world.

PHY 743-744 Topics in Advanced Experimental Physics I-II Lec. 3./Credit 3.
Three to four laboratory experiments each semester covering topics in advanced electronic and nuclear instrumentation, atomic and molecular physics and laser spectroscopy, development of basic experimental techniques and data analyses, and written and oral presentation of experimental results.

PHY 745/APS 645 Principles of Atmospheric Physics I Lec. 3./Credit 3.
This course examines the physical processes that occur in the atmosphere. Designed for graduate students who are beginning a program in Atmospheric Sciences and for others, who desire a basic understanding of the fundamental physics of the atmosphere. Atmospheric thermodynamics, first and second laws of thermodynamics, ideal gas law, equilibrium phase change, thermodynamics of moist air, thermodynamic charts and dyrostatic stability of the atmosphere; Cloud physics including nucleation of liquid droplets and ice crystals, the nature and sources of nuclei, particle growth (condensation, coalescence, accretion and aggregation, electrical effects), particle evaporation, and particle mechanics (fall velocity). Atmospheric radiation including the fundamentals of radiative transfer, the sun and solar constant, radiative heat balance of the atmospheric greenhouse processes, and aerosol effects.

PHY 746/APS 646 Atmospheric Chemistry Lec. 3./Credit. 3.
This course will discuss the interaction of sunlight and the Earth's own radiation with the atmosphere, and how basic thermodynamics, kinetics and photochemistry can be applied to many fundamental atmospheric chemical and physical systems. Photochemical production and destruction of ozone, infrared absorption by greenhouse gases, and the cycling of natural and man-made atmospheric carbon, nitrogen and sulfur compounds. We will also explore the unique role that water vapor plays in our atmosphere.

PHY 749/APS 649 Atmospheric Radiative Transfer Lec. 3./Credit 3.
Quantitative description of electromagnetic energy, derivation of the equation of radiative transfer; applications to nadir and limb geometries; scattering, absorption and emission processes, Earth radiation balance considerations, Earth radiation budget satellite data studies. Prerequisite: PHY 745.

PHY 750/APS 750 Atmospheric Measurement
Lec. 3./Credit 3.
An overview of the chemistry, physics and structure of the atmosphere, including the stratosphere, mesosphere, and lower atmosphere. Basic principles of atmospheric remote in-situ sensing using satellite limb and nadir emission, solar occultation, lidar sounding and in-situ sensing from aircraft, balloons and rockets. Measurement error analysis methodology. Prerequisite: PHY 749.

PHY 760 Structure and Dynamics of the Earth's Atmosphere Lec. 3./Credit 3.
The structure of the global atmospheric circulation and its seasonal variability. Emphasis on terminology, concepts, and familiarity with observational data that illustrate the climatological features of the atmosphere. Topics include: stratospheric sudden warmings, quasi-biennial and semi-annual, thermodynamic and physical properties, synoptic and global scale motion, circulation, vorticity, divergence, geostrophic balance and thermal wind. Zonally-averaged equations of motion will be developed in conventional and transformed-Eulerian mean form.

PHY 762 Geophysical Fluid Research Lec. 3./Credit 3.
Equations for rotating, compressible fluid on a sphere will be developed from first principles: non-inertial reference frames, apparent forces, conservation principles, and scale analysis. Topics include importance of circulation, vorticity, and divergence, vorticity conservation, shallow water and quasi-geostrophic approximations, atmospheric oscillations, Rossby waves, internal gravity waves, inertio-gravity waves and Kelvin waves. Prerequisite: PHY 760.

PHY 791 Dissertation Research Credit 1-12.
Research on problems leading to a dissertation.

PHY 797 Dissertation Registration Credit 1.
This course documents continuation of data analysis, interpretation, and progress toward completion of the doctoral dissertation in physics for students in absentia. Credit earned does not count toward degree requirements. S/U graded only. Prerequisite: Completion of all doctoral degree requirements, except PHY 798.

PHY 798 Doctoral Final Oral Comprehensive Examination Credit 1.
Satisfactory completion of this course documents successful defense of the doctoral dissertation in physics. Credit earned does not count toward degree requirements. S/U graded only.
Prerequisite: Completion of all course requirements in physics.

PIA (Piano)

PIA 103-104, 203-204, 303-304, 403-404 Minor Performance (Small Group) Stu. 2./Credit 1.
Small group lessons in minor piano. Special emphasis to be placed on basic technique and literature of the piano or an intermediate level. Proficiency examination is taken at the end of the first year for Music Education Major. Non-majors must have departmental permission to enroll.

PIA 105-106 Class Piano Stu. 2./Credit 1.
Study and development of keyboard performance skill, sight-reading, melody harmonization, improvisation, and transposition.

PIA 107-108, 207-208,307-308,407-408

Major Performance Class 1. Stu. 2./Credit 2-3.
A four-year course in the major performing medium. Intensive study of advanced performing techniques, performance literature, accompaniment literature, style, and interpretation.

PIA 205-206 Class Piano Stu. 2./Credit l.
Continuation of keyboard performance skills. All major and minor scales, chords, arpeggios, and appropriate level repertory. Prerequisite: Class Piano 106 or by permission of instructor.

PIA 507-508 Major Piano Performance Class 1.
Stu. 1./Credit 2.
A continuation of major applied study beyond the public recital. Prerequisite: PIA 408.

POL (Political Science)

POL 201 Introduction to Political Science
Lec. 3./Online/Credit 3.
Critical examination of the nature of politics, subject matters, basic concepts, approaches, problems, and research methods.

POL 202 Introduction to Political Theory Lec. 3./Credit 3.
The major philosophers in the Western tradition from Plato to Marx will be examined and compared to selected thinkers from non-western traditions in order to better understand the relationship between wisdom, knowledge and power.

POL 203 American National Politics Lec. 3./Credit 3.
Study of ideas and realities of American democracy. Topics include constitutional principles, organization and function of national government, and the roles of political parties, pressure groups, and public opinion in the politics.

POL 204 State and Local Politics Lec. 3./Credit 3.
Structure, powers, functions and problems of state and local governments and their role in the federal system.

POL 205 Government and Politics in Europe
Lec. 3./Credit 3.
Comparative study and analysis of political systems of Britain, France, Germany and Italy, focusing primarily upon the differences and similarities in political ideologies, political cultures and political institutions, and policy making processes. The course also examines the emerging administrative and political institutions of the European Union.

POL 206 Current Issues in Political Behavior
Lec. 3./Credit 3.
A study of the current political issues and problems facing the national government. Issues in such areas as affirmative action, the economy, equal rights, foreign relations and national security will be analyzed.

POL 210 Scope and Methods of Political Science
Lec. 3./Credit 3.
Study of concepts and methods of social science, especially of political science, philosophy of science, presuppositions, aims and history of procedures and methods; research techniques, sources, bibliography and presentation of investigative results.

POL 302 Constitutional Law and Civil Rights
Lec. 3./Credit 3.
Study of constitutional law cases involving political and civil rights.

POL 303 Presidency **Lec. 3./Credit 3.**
A study of the role of the Presidency in the American political process. Emphasis on formal and informal powers of the Presidency, leadership styles, and factors influencing presidential behavior.

POL 304 International Politics **Lec. 3./Credit 3.**
Study of the nature of international society, patterns of conflict, and cooperation between and among states and other international actors. Foreign policies of major countries discussed.

POL 305 Introduction to Political Economy
Lec. 3./Credit 3.
An analysis of the interaction between political and economic institutions in capitalist, socialist, and Third World nations. Prerequisites: POL 201 and ECO 201 or the consent of instructor.

POL 306 Political Parties and Interest Groups
Lec. 3./Credit 3.
Organization and functions of political parties and interest groups in American political processes. Attention given to the role of political parties in elections and decision-making process; and the nature of military-industrial complex.

POL 307 Contemporary Issues in International Politics
Lec. 3./Credit 3.
Analysis of important contemporary international issues. Special attention to factors influencing a nation's foreign policy. Emphasis on case studies.

POL 308 Urban Politics **Lec. 3./Credit 3.**
Examination of political patterns, political processes, and political conflicts in metropolitan area. Interrelationship between urban growth and change in political institutions, political processes, and solutions to problems of large cities.

POL 309 Law and the Judicial Process **Lec. 3./Credit 3.**
A survey of the role of law and the courts in American political process. The nature and sources of law and justice, judicial institutions, and judicial processes. Prerequisite: POL 203 or the consent of the instructor.

POL 310 Politics of the Global South **Lec. 3./Credit 3.**
Dynamics of modernization and political development in non-Western countries. Impact of industrialization on political process, political instability, and conflict between traditionalism and modernism.

POL 311 African Political Theory **Lec. 3./Credit 3.**
An historical survey using a Pan-African perspective to examine selected ideas of Africans, as well as prominent African Americans and Afro Caribbeans who have influenced the shape of modern African political thought.

POL 314 Africana Political Philosophy **Lec. 3./Credit 3.**
Analysis of the history of Black political thought; emphasis on African American social and political writings.

POL 315 Legislative Process **Lec. 3./Credit 3.**
An analysis of the legislation process in the U.S. Congress and of the role of Congress in the national political process. Topics include the relations between Congress and the executive, the formal and informal structure of Congress, the voting behavior of Congressmen, and the nature of Congressional decision-making in various policy areas.

POL 316 Political Socialization **Lec. 3./Credit 3.**
Focuses on the process by which political behavior is learned; analyzes the role of socialization agencies throughout the cycle of life.

POL 317 Feminist Political Theory **Lec. 3./Credit 3.**
Examines the roots of feminist thought and womanism from a non-western and western perspective. The course explores the dynamics of the feminist movement, particularly its implications for women of color.

POL 318 Legal Theory **Lec. 3./Credit 3.**
This course will examine the central question about the nature of law. What is law? How is it to be defined? What are its essential aspects? The course will examine various theories that have been propounded in the course of human philosophy to explain the nature of law. Critiques of mainstream jurisprudential thought from leftist and minority perspectives will also be considered.

POL 319 Legal Research **Lec. 3./Credit 3.**
This course will examine legal materials such as general statutes, codes, West Law, and other legal resources. Limited to juniors and seniors.

POL 320 Women and Politics **Lec. 3./Credit 3.**
Examines the implications of race, gender and class on the political status of women, nationally and internationally. Particular attention is given to the impact of the women's movement on the status of women.

POL 330 Government and Politics in Africa
Lec. 3./Credit 3.
Introductory survey of political patterns, political processes, and political ideologies in Africa. The legacy of colonialism, process of modernization, and problems of political instability.

POL 341 Afro-American Politics **Lec. 3./Credit 3.**
An examination of black political movements; participation of blacks in the American electoral process; the power structure in black communities.

POL 346 Statistics Lec. 3./Credit 3.
An introduction to the logic and techniques of social science research, examination of the structure of scientific inquiry, methods utilized to analyze information, with emphasis placed upon the interpretation of the information.

POL 350 Comparative Legal Systems Lec. 3./Credit 3.
This course focuses on a comparison of western and non-western legal thought and political systems.

POL 399 Independent Study Lec. 3./Credit 3.
Emphasis on independent study. Field research encouraged.

POL 400 Cooperative Program Credit 3-12.
On-the-job observation of the operation of the political system. Students must register for the S/U option. No letter grade (A+ F) is given for this course. Prerequisite: Permission of the chair.

POL 401 Service Learning Lec. 3./Credit 3.
Community non-profit organization service. Volunteer service to community organization with hours worked out between the student and organization. A minimum of three hours per week for one semester.

POL 402 Public Personnel Administration Lec. 3./Credit 3.
A survey of basic principles and functions of recruitment, placement, promotion, and wage and salary administration in civil servants and political implications of personnel management.

POL 403 Senior Seminar I Lec. 3./Credit 3.
Intensive investigation of contemporary political issues through application of significant contemporary theories, approaches and models used in political science research. Students will begin work on the Senior thesis in this course. Prerequisites: POL 210 and senior standing.

POL 404 Senior Seminar II Lec. 3./Credit 3.
Complete senior thesis under the supervision of faculty mentors. Students will present research findings as the capstone experience in political science. Prerequisite: POL 403.

POL 405 International Law Lec. 3./Credit 3.
Survey of principles of international law concerning functions of states and other international entities, diplomatic relations, and laws of warfare, with special emphasis on the relationship between international law and politics. Prerequisite: POL 304.

POL 406 International Organization Lec. 3./Credit 3.
Study of origins and functions of international organizations together with important principles involved and special problems related to international organization. Emphasis on United Nations. Prerequisite: POL 304.

POL 407 Introduction in Public Administration Lec. 3./Credit 3.
Study of nature and functions of bureaucracy with special reference to public administrative agencies. Special attention to role of administrative agencies in decision-making process and their relations to Congress, interest groups, political parties, and the general public.

POL 408 Public Policy Lec. 3./Credit 3.
A study of how the federal government perceives public issues, processes them, and executes public policies. Various decision-making theories will be examined. Emphasis on case studies. Prerequisite: POL 201 or 203. This class is limited to juniors and seniors.

POL 409 Race and Public Policy Lec. 3./Credit 3.
A study of the policy making process and how race impacts the various factors that influence policy choices in the American government.

POL 410 Public Finance Lec. 3./Credit 3.
Basic concepts and modes of government financing, especially local and state governments. Particular attention will be given to the implications for units of government under black political authority.

POL 412 Administrative Law Lec. 3./Credit 3.
A study of the administrative powers and procedures in the United States and experiences of other democracies, including the United Kingdom and France. A special focus will be made on the legal and administrative methods of achieving responsible bureaucracy.

POL 425 Legal Writing Lec. 3./Credit 3.
This course will focus on general methodologies used in briefing cases and developing legal analysis. This course will provide opportunities for a variety of legal writing experiences. Limited to juniors and seniors.

POL 430 Topics in U. S. Foreign Policy Lec. 3./Credit 3.
Analysis of formation and execution of foreign policy; focus on the role of domestic forces and governmental institutions in policy making and contrasting interpretations of U. S. relations.

POL 499 Special Topics Lec. 3./Credit 3.
Special topics in political science. May be taken more than once as the topic of the course changes.

POL - Political Science Undergraduate/ Graduate

POL 501 Seminar in International Politics Lec. 3./Credit 3.
Critical analysis of contemporary approaches to the study of international politics. Emphasis on behavioralist approaches and examination of important contemporary issues. Prerequisite: POL 304.

POL 502 Seminar in Comparative Politics Lec. 3./Credit 3.
Critical analysis of contemporary approaches to study of comparative politics. Topics include representative traditional and behavioralist approaches and research methods. Prerequisite: POL 205 or 310.

POL 503 Problems in Federal Government Lec. 3./Credit 3.
Examination of important issues. Topics include executive-legislative relationship, decision-making process in the executive and presidential powers. Prerequisite: POL 203.

POL 504 Seminar in Contemporary Political Thought
Lec. 3./Credit 3.
Critical examination of important normative and empirical theories. Prerequisite: POL 202 or 312.

PSY(Psychology)

PSY 203 Introduction to Psychology
Lec. 3./Online/Credit 3.
Basic topics in psychology are explored, such as learning, motivation, intelligence, personality, perception, abnormality, and others. Emphasis is given to scientific methodology and its application to behavior.

PSY 205 Social Psychology Lec. 3./Credit 3.
Survey of traditional and contemporary topics with an emphasis on theory and methods of social psychology. Prerequisite: PSY 203.

PSY 208 Methods of Psychology Lec. 3./Credit 3.
Introductory course in the experimental analysis of behavior. In-depth coverage of the logic of scientific investigation. Prerequisite: PSY 203.

PSY 300 Abnormal Psychology Lec. 3./Credit 3.
Study of major categories of psychological disturbance, their origin and development. Consideration given to diagnosis and therapeutic techniques. Prerequisite: PSY 203.

PSY 301 Systems of Psychology Lec. 3./Credit 3.
Historical investigation and critical evaluation of the major systems and theories of psychology. Open to majors only.

PSY 302 Theories of Personality Lec. 3./Credit 3.
A critical examination of major theoretical approaches to understanding personality, including psychoanalytic, cognitive, and humanistic perspectives. Prerequisite: PSY 203.

PSY 303 Psychological Testing Lec. 3./Credit 3.
Introduction to basic principles of psychological measurement with investigations of representative tests. Prerequisite: PSY 203, 208 and 346.

PSY 304 Motivation Lec. 3./Credit 3.
A survey of the major theories of human and/or animal motivation. Prerequisite: PSY 203.

PSY 305 Learning and Memory Lec. 3./Credit 3.
Study of classical and operant conditioning, verbal and motor learning, forgetting and transfer. Prerequisite: PSY 203, 208.

PSY 306 Perception Lec. 3./Credit 3.
An analysis of historical, theoretical, psychological, social, and genetic factors involved in sensory and perceptual process. Prerequisites: PSY 208; BIO 103.

PSY 307 Methods in Psychology II Lec. 2./Lab 2./Credit 3.
Advanced analysis in behavioral, personality, and social research. Practice in experimental and statistical treatments of laboratory and field investigation. Critical analysis of research findings and theory. Prerequisites: PSY 208 and 347.

PSY 308 Physiological Psychology Lec. 3./Credit 3.
The study of the biological basis of behavior. Topics covered include the anatomy of the nervous system, neural transmission, psychopharmacology, sleep, stress, emotion and psychological disorders and their biological treatments. Prerequisites: PSY 203, BIO 103 or higher.

PSY 309 Junior Seminar Lec.3./Credit 3.
Exploration of issues related to the profession of psychology and preparation for the graduate school admission process. Prerequisites: PSY 203, PSY 308.

PSY 311 Developmental Psychology Lec. 3./Credit 3.
Studies the physical, cognitive and psychosocial development of the individual from conception to death. Includes an emphasis on a multicultural approach to human development across the lifespan. Prerequisite: PSY203.

PSY 319 Using Computers in Psychology
Lec./Lab 3./Credit 3.
An introduction to the use of various software packages and computer-related technology in research and practice in psychology. Prerequisite: PSY 208, 346.

PSY 346 Statistics I Introduction to Statistical Methods
Lec. 3./Credit 3.
Use of statistics in the social sciences. Descriptive and correlational statistics. Prerequisite: PSY 203.

PSY 347 Statistics II Advanced Statistical Methods
Lec. 3./Credit 3.
Advanced treatment of statistical data with emphasis on experimental design, multiple and partial correlation, multivariate analysis, and nonparametric statistics. Prerequisites: PSY 203, PSY 346.

PSY 401 Industrial and Organizational Psychology
Lec. 3./Credit 3.
Introduction to the study of human behavior in the work environment with emphasis on social and interpersonal context. Prerequisite: PSY 208.

PSY 402 Black Psychology Lec. 3./Credit 3.
Survey course addressing the evaluation of psychology for African-Americans from an Afrocentric perspective. Prerequisite: PSY 203 or permission of instructor.

PSY 404 Topics in Psychology Lec. 3./Credit 3.
An intense investigation of topics of current interest and importance. Topics vary by semester and section numbers indicate the specific title and focus of each course. Prerequisites: PSY 203.

PSY 406 Mentoring Youth Lec./Lab 3./Credit 3.
Applied course involving a service learning training model as preparation for tutoring, crisis intervention and mentoring of youth. Prerequisite: Permission of instructor.

PSY 407 Mentoring Youth II Lec./Lab 3./Credit 3.
Applied course involving a service learning training model as preparation for tutoring, crisis intervention and mentoring of youth. Prerequisite: Permission of instructor.

PSY 408 Senior Seminar Sem. 3./Credit 3.
Advanced work in theory and research relating to core issues. Open to majors only. Prerequisites: PSY 203, PSY 208, PSY 309.

PSY 409 Independent Study Ind/Credit 3.
Independent work in an area of special interest. Periodic reports and conferences with a supervising faculty member. Extensive readings in students' research area. Prerequisite: PSY 203, 346.

PSY 410 Field Study Ind/Credit 3.
Special opportunities for students majoring in psychology to do part-time applied work during the academic year with community organizations and agencies under the supervision of professionals. Prerequisite: PSY 203 and 303/302/311.

PSY 412 Internship Trn./Credit 6.
A full-time, off-campus psychology experience in a community setting consistent with the student's academic objectives, under appropriate supervision for a period of at least three months and usually conducted in the summer. Prerequisite: PSY 203 and 300/302/311. Permission of the Department Chair.

PTM (Professional Tennis Management)

PTM 201 Introduction to Professional Tennis Management Lec. 3./Credit 3.
An overview of the field of professional tennis management with an in-depth view and evaluation of career opportunities. A study of the relationship between marketing and professional tennis management and an evaluation of the marketing principles involved in the profession.

PTM 200 Kinesiology of Sport Lec. 3./Credit 3.
Study of body movements, muscle action and joint mechanics as related to sport and athletic teams' play and performance. Prerequisite: BIO 101.

PTM 303 Tennis Racquet Repair Lec. 1./Lab 1./Credit 2.
A review of tennis racquet repair techniques using different repair machines. A knowledge of stringing, tension, and the effects of these factors upon playing effectiveness.

PTM 304 Tennis Teaching Techniques Lec. 1./Lab 1./Credit 2.
A concentrated study of techniques of teaching tennis to persons at all age levels. A thorough presentation of teaching all of the basic strokes as well as strategy. A strong emphasis given to the students' ability to demonstrate knowledge "on the court.".

PTM 403 Tournament Administration Lec. 2./Credit 2.
An introduction to tournament administration at all levels, including recreation, club, college and professional. A concentration upon its rules for running tournaments and their application problems that arise during the course of tournaments.

PTM 404 Theories and Techniques of Coaching Tennis Lec. 2./Lab 1./Credit 3.
A strong concentration upon the techniques of coaching tennis at the school, college and club levels. Emphasis is given to such factors as recruiting, team organization, developing team morale, establishing the team ladder and on the court coaching in a team match. Practicum experience in coaching on school, college or club program is required.

PTM 406 Cooperative Education Credit 3-6.
An intensive six-week internship in the field in which the student works with a tennis professional at a club, resort or a college or school program. Evaluation of performance to be recommended by on-site coordinator.

RCT (Recital)

RCT 101 Recital Attendance Credit 0.
Concerts and recitals occurring on campus by university groups, departmental ensembles, or professional groups provide experiences in performance. Stage decorum, presentation of the performance, musical literature, standards of performance, and audience response will be examined.
RDG (Reading)

RDG 100 Developmental Reading and Study Skills Lec. 3./Credit 3.
Designed to provide students with an opportunity to acquire a foundation for understanding and applying college reading-study skills as essential elements for success in college. Varied techniques, guidelines and procedures for developing cognitive strategies that allow the student to extract, integrate, and apply information from lectures, textbooks, personal notes, and reference readings. A three-credit course, Reading 100 is offered only on an S/U basis and cannot count toward graduation.

RDG 101 Reading Skills Lec. 3./Credit 3.
This course emphasizes analytical thinking and reading skills that are essential for interpreting college-level material. It is designed to strengthen the ability of students to think and read analytically, to promote and stimulate conscious thinking, and to mentally organize information read in order to see the relationship between ideas and apply them effectively.

REC (Recreation and Tourism)

REC 203 Foundations of Recreation and Tourism Lec. 3./Credit 3.
This introductory course is designed for students who wish to explore the varied professions of recreation and leisure as a possible career. The course will provide a conceptual analysis of recreation, leisure and play. The history and philosophy of leisure as well as various service delivery settings will be explored.

REC 204 Recreation Leadership Lec. 3./Credit 3.
This course is designed to develop the student's recreation leadership skills. Leadership theory will be discussed; however, the focus of this course will be actual leadership experience with student participation.

REC 205 Disabilities and Therapeutic Recreation
Lec. 3./Credit 3.
This course is designed to give an overview of the various special populations that require specialized recreational services. Etiology and residual deficits of various disabilities will be explored with emphasis placed on appropriate recreation programming. Prerequisite: REC 206.

REC 206 Foundations of Adapted Aquatics
Lec. 3./Credit 3.
This course will introduce students to models for adapted aquatics programs and sports. Students will learn benefits of adapted aquatic participation, methods for accessing the pool, compensating for mobility restrictions, and utilizing available adaptive equipment. Programmed exercises to extend range of motion, increase strength, improve mobility, and develop the greatest possible stamina will be included.

REC 231 Recreation Games Lec. 3./Credit 3.
This course will investigate the psychology of play and apply it to game leadership. Students will develop game leadership skills and collect a resource file of game and arts and crafts activities. Students will also gain an understanding of the play needs of all age groups.

REC 232 Clinical Aspects in Therapeutic Recreation
Lec. 3./Credit 3.
This course will acquaint students with the various allied health professions, accrediting agencies and clinical issues related to the provision of therapeutic recreation in the health care setting. The course will focus on treatment techniques and procedures used by therapeutic recreation specialists. Prerequisite: REC 206.

REC 310 Recreation Program Principles Lec. 3./Credit 3.
This course will provide students with an understanding of recreation program practices including planning, program principles and program evaluation. In addition to theory, students will organize, lead and evaluate a variety of recreation programs. Prerequisite: REC 204.

REC 311 Adapted Aquatics Analysis and Assessment
Lec. 2./Credit 2.
This course is designed to introduce students to adapted aquatic therapeutic exercise, with a focus on analysis of characteristics of individuals and groups with special needs, including sensory disabilities, mental disorders, cardiovascular disorders, and muscular-skeletal disorders. Assessment and evaluation processes will include observations, screening, and measurement instruments for the purpose of designing exercise protocols for individuals and groups with special needs. Upon successful completion of this course, students will receive nationally recognized adapted aquatics instructor certification.

REC 312 Design and Maintenance of Recreation and Tourism Facilities Lec. 3./Credit 3.
This course is designed to introduce the process of designing and maintaining the facilities typically found in recreational environments such as playgrounds, picnic areas, ball fields and recreation centers. Emphasis will be placed on actual facilities found in the Tidewater area.

REC 313 Legal Issues in Recreation and Tourism
Lec. 3./Credit 3.
This course examines the legal issues that affect recreation and tourism businesses, organizations, and facilities. The course includes a review of the judicial opinions governing recreation management, professional and tourism enterprises. The course uses detailed case studies to examine tort law, collective bargaining, arbitration, antitrust laws, and civil liability including safety issues and criminal law. Note: Meets requirements of NRPA/AAPAR program approval – content area – Legislative and Legal Aspects.

REC 314 Public Relations and Promotion in Recreation & Tourism Lec. 3./Credit 3.
This course provides an introduction to the techniques involved in fostering good public relations and promotional strategies for recreation and tourism businesses, organizations, events, and facilities. Students will become proficient in writing promotional, informational, and news copy for a variety of media. Note: Meets requirements of NRPA/AAPAR program approval – content area – A Administration/Management.

REC 350 Special Topics in Aquatics Lec. 3./Credit 3.
This course is designed to prepare individuals to manage pools, spas, water parks, and outdoor aquatic facilities. Topics covered will include water chemistry and filtration, staff management, event management, emergency action plans, and liability issues. Upon successful completion of this course, students will receive a nationally recognized pool operator's certification.

REC 390 Dynamics of Tourism Lec. 3./Credit 3.
This course provides a fundamental understanding of the dynamics and components to tourism and the tourism industry from the historical and applied perspectives.

REC 400 Recreation Internship/Seminar Credit 12.
This 400-hour internship experience will provide students with the opportunity to apply recreation and leisure knowledge and skills in a professional setting. Students will be supervised by Certified Recreation Professionals. Students will be required to complete several projects related to recreation programming and program leadership. Prerequisites: All REC courses completed.

REC 401 Financial issues in Recreation & Tourism
Lec. 3./Credit 3.
This course will cover information on recreation and tourism funding sources; economic feasibility analysis; business plans; recreation enterprise zones; budget preparation and analysis; financial management; and accounting techniques. Note: Meets requirements of NRPA/AAPAR program approval – content area – Administration/Management.

REC 402 Organization and Administration of Recreation and Tourism Lec. 3./Credit 3.
This course is designed to introduce students to the principles of organization and administration of recreation agencies. The role of the administrator and manager will be explored by investigating the concepts, problems and responsibilities faced by management staff. Prerequisite: REC 310.

REC 403 Observations in Recreation and Tourism
Lec. 3./Credit 3.
This field placement is designed to provide the student with an opportunity to observe recreation and leisure program delivery in professional settings with a variety of different populations. This field placement is also designed to assist the student in determining potential internship sites, and career choices.

REC 404 Principles of Commercial and Non-Traditional Recreation Lec. 3./Credit 3.
This course will acquaint students with the expanding roles of commercial, employee, military and campus recreation. This investigation will not only focus on the leisure service delivery agencies, but also the interrelationships that are present within the business environment. Prerequisite: REC 203.

REC 405 Internship Seminar Sem. 1./Credit 1.
This course is meant to provide a capstone experience for the Recreation Intern to tie together the internship experience with the traditional recreation courses the student has already completed.

REC 419 Camping and Outdoor Recreation
Lec. 3./Credit 3.
The purpose of this course is to examine outdoor education through participating in various outdoor recreation activities. Emphasis will be placed on outdoor survival, environmental issues and leading outdoor recreation programs.

REC 420 Practicum in Aquatics Trn. 3./Credit 3.
This course is designed to provide students with an initial professional experience in an aquatic environment. Students will be required to participate in the aquatic operations and programming of a selected facility.

REC 499 Independent Study Ind./Credit 3.
Readings and research in approved topics under the guidance of a faculty member of the department. Course may be repeated once for credit with a change in subject matter.

REL (Religion)

REL 101 Orientation to Effective Online Learning
Online/Credit 1.
This course will provide an introduction to the online environment. Concepts will be provided that introduce the essential knowledge management skills required to develop search strategies to locate, evaluate, and use information. Students will be introduced to communication tools available through the campus computing environment, resources of the world wide web, the university online catalog (HUWebCat), electronic information resources and services.

REL 104 Fundamentals of Public Speaking (Homiletics)
Online/Credit 3.
Training in fundamentals of good speech with the aim of establishing pleasing and appropriate habits of speech. Instruction in rhetorical theory with emphasis upon research, organization of materials and the oral language, primarily as used in a teaching/ preaching application. Online students make extensive use of student audiotape /videotape presentations. This course will be taken in lieu of COM 103.

REL 111 Old Testament I Online/Credit 3.
A general introduction to all the books of the Old Testament, their cultural background, and the context from which they emerged.

REL 112 Old Testament II Online/Credit 3.
An in-depth study of the literature and religion of ancient Israel in light of archaeological discoveries, research about the ancient Near East, and a variety of interpretations.

REL 201 The Prophetic Books (Major and Minor Prophets) Lec. 3./Online/Credits 3.
A study of the writing prophets including an introduction to the origin and development of prophecy among the Hebrews, a study of the prophets themselves, and a thorough investigation of their message.

REL 202 Life and Teachings of Jesus (2) Lec. 3./Credit 3.
Intensive study of the Biblical record of the life and teachings of Jesus, designed to acquaint the student with the direct teachings and Spirit in which Jesus lived and worked.

REL 203 Religion in America (1) Lec. 3./Credit 3.
Historical and theological perspective of religions in America, beginning with pre-American Puritanism on through to recent developments in liberation theology. Attention given to relationship between America's religious heritage and her social and political development.

REL 203 Islam Online/Credit 3.
History of Islamic thought from the time of Muhammad to the present, including the prophethood of Muhammad, the Qur'an, theology and law, mysticism and philosophy, sectarian movements, modernism and legal reform, and contemporary resurgence.

REL 204 Pentecostalism Online/Credit 3.
This course will analyze the Pentecostal movement as it grew in the 20th Century as trans-cultural religious phenomenon. The course will explore the wider international context of Pentecostalism as it grew in Central and South America. Attention will also given to how ethnic minorities in the United States have reshaped the practice and the meaning of Pentecostalism, particularly with regard to race and gender. The approach will be historical, anthropological, and theological. Using various Pentecostal texts and articles, we will work toward a clearer understanding of the basic tenets of Pentecostalism, namely "divine healing," "baptism in the Holy Spirit," and "speaking in tongues." We will also investigate how the most recent internationalist shift within the Pentecostal movement has renewed millennialist thought and efforts for Christian ecumenism.

REL 205 Other Religious Traditions Online/Credit 3.
A critical analysis of religious faith groups indigenous to the United States to include Jehovah Witnesses, Latter Day Saints, the Nation of Islam, New Age, and other groups.

REL 211 New Testament I Online/Credit 3.
Analyzes the literature of the New Testament in its social and religious setting, with special reference to the ministry and teaching of Jesus, the emergence of the church as a sect within ancient Judaism, and the development of Christian institutions in the Graeco-Roman world.

REL 212 New Testament II Online/Credit 3.
A critical examination and attempt to understand the New Testament as the written traditions which articulated the faith, expectations, and actions of the early Christians as they responded within Jewish and Greek culture to the historical events of their day, and especially as they responded to the life.

REL 450 Introduction to Pastoral Care Online/Credit 3.

REL 305 Biblical Exegesis Online/Credit 3.
A study of sound principles for proper interpretation of the Biblical text with emphasis on context, structure, literacy devices, and genre.

REL 307 World Religions Lec. 3./Online/Credit 3.
Study of Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Focus on the worldview of each tradition and the historical development of that world-view.

REL 309 American Religious Traditions Online/Credit 3.
An historical survey of religion in America from the Civil War to the present. The course includes study of theological change in Protestantism, the emergence of three kinds of Judaism, controversy and change in American Catholicism, the origins of fundamentalism and Pentecostalism, and various expressions of African-American faith. It attends to the effects of immigration, urbanization, politics, and other social and cultural changes on American religious life.

REL 310 Basic Insights in the Judaeo-Christian Tradition Online/Credit 3.
This course will explore the basic theological tenets of Judaism and Christianity to include their similarities and differences.

REL 310 Basic Insights of the Judaeo-Christian Tradition Lec. 3./Credit 3.
Historical and systematic presentation of the biblical world view. The organic relationship of faith, ritual, and ethics, in biblical thought.

REL 321 African American Religions in Historical Perspective Online/Credit 3.
This course will examine the relationships between African American religion, black culture and black political thought. Centering our study on a few essential questions regarding the nature and function of the black church, we will explore its effect upon black cultural forms — music (from Gospel to Rap), fiction, poetry, and oratory. We will address a number of themes, including: the relationship between black church and black political leadership, race and religion, feminist theologies, and "Afro-centric Christianity." We will trace the development of African American religion in various historical contexts: Slavery, the Great Migration, and the Civil Rights era. Although this course will focus on African American Protestantism, we will examine black religion in other forms as well, particularly black Catholicism and the Nation of Islam.

REL 401 Introduction to Theology Online/Credit 3.
A survey of theology with emphasis upon the practical application of the doctrines to the ministry of the Gospel in contemporary culture. Topics include the following: an overview of various theological perspectives, revelation, biblical inspiration, the Trinity, attributes of God, creation, and providence. The course will expose students to the theory and practice of pastoral care. Emphasis will be placed on the development of pastoral skills, as well as theological, cross-cultural, and psychological models of interpretation.

REL 451 Pastoral Limits and Pastoral Authority Online/Credit 3.
A course designed to develop an understanding of the nature of pastoral authority, its relationship to various forms of power, and the form and nature of pastoral leadership. It will explore pastoral boundaries, ethical constraints, and the limits of time, skill, and energy.

RUS (Russian)

RUS 101 Elementary Russian I Lec. 3./Lab 1./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

RUS 102 Elementary Russian II Lec. 3./Lab 1./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: RUS 101 or the equivalent.

RUS 201 Intermediate Russian I Lec. 3./Lab 1./Credit 3.
Continued development of ability to read, write, speak and understand Russian. Correct pronunciation stressed. Grammar reviewed. Prerequisite: RUS 102 or equivalent.

RUS 202 Intermediate Russian II Lec. 3./Lab 1./Credit 3.
Continued development of ability to read, write, speak and understand Russian. Correct pronunciation stressed. Grammar reviewed. Prerequisite: RUS 201 or equivalent.

RUS 301-302 Comprehensive Review of Russian Grammar I-II Lec. 3./Credit 3.
Emphasis on oral and aural practices and composition. Focuses on conversation and essays.

RUS 303-304 Russian Conversation I-II Lec. 3./Credit 3.
Extensive practice in speaking based on diverse reading selections: social, political, technological and others.

RUS 320-321 Topics in Russian Literature and Culture I-II Lec. 3./Credit 3.
This course exposes students to important issues in Russian Literature through the study of films, arts and music. Focuses on conversation.

RUS 400 Twentieth Century Russian Literature Lec. 3./Credit 3.
Students will analyze the development of Russian thought in literary works.

RUS 440 Experiential Learning Lec. 3./Credit 3.
Can include study abroad, research abroad, domestic or international internships.

SCI (Science)

SCI 102 Introduction to Physical Science Lec. 3./Credit 3.
Some concepts and methods of modern physical science; consideration of its role in modern thought and society. Special emphasis will be given to topical themes that relate physical science principles to contemporary issues in science, technology and society.

SCI 104 Introduction to Physical Science Lec. 3./Lab 2./Credit 4.
Some concepts and methods of modern physical science; consideration of its role in modern thought and society. Special emphasis will be given to topical themes that relate physical science principles to contemporary issues in science, technology and society.

SCI 203 Introduction to Nanoscience Lec. 3./Credit 3.
This course introduces students to nanoscience by introducing the concept of size and scale as they pertain to the discipline. It also introduces students to common terminology, and covers the basic mathematics required for working in the nanoscale. The course surveys nano for each of the sciences: nanophysics, nanochemistry, nanobiology and the technical evolution of nanotechnology in nanoengineering. This course satisfies the University's general education core requirement in physical science. Prerequisite: None.

SCI 300 Earth Science Lec. 3./Lab 3./Credit 4.
Including selected concepts of astronomy, geology, meteorology, and oceanography. Approach is to show development of these concepts, their interrelationships, and present status.

SCI 301 Introduction to Biometry Lec. 3./Lab 2./Credit 3.
Application of parametric and non-parametric statistics to data generated in various areas of biology and environmental science; analysis of growth curves and population fluctuations. Special emphasis on data presentation and decision-making. Programmable calculators or computers are used extensively.

SCI 306 Science for Children Lec. 3./Credit 3.
Consideration of Principles and practices governing the teaching of science in K-6, survey of recent trends and literature in the field, use of demonstrations, experiments, field experiences. Special emphasis on science content and appropriate teaching techniques utilizing the natural, physical, environmental and earth science as departure points. The coursework will integrate the Computer Technology Standards of Learning for Virginia's Public Schools Grades K-12 and the International Society for Technology in Education (ISTE) standards for applying instructional technology to facilitate a variety of effective assessment and evaluation strategies to enhance productivity and professional practice, maximize student learning, and understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools.

SCI - Science Graduate Only

SCI 602 Special Topics in Physical Science Lec. 3./Credit 3.
Historical examination of scientific method and its implications in articles on research and examination of tools and apparatus.
SOC (Sociology)

SOC 205 Introduction to Sociology Lec. 3./Online/Credit 3.
Introduction to the scientific study of society and social behavior. Emphasis on culture, social structure, social inequality, social institutions and social change. SOC 205 is a prerequisite to all other courses given by the Department, unless permission of the instructor to waive the prerequisite is obtained.

SOC 210 Social Problems Lec. 3./Credit 3.
A critical study of the institutional and structural sources of contemporary social problems such as economic and political inequality, racism and sexism, war and international conflicts, environmental and institutional crises. Attention given to how social problems particularly affect Blacks and to alternative strategies for solving social problems.

SOC 215 Introduction to Criminology Lec. 3./Credit 3.
An introduction to the sociological study of crime. Major sociological theories of crime. Main kinds of crime: street crime, white collar, organized, corporate and political crime. Critical examination of the police, courts, corrections and other social institutions which deal with crime. Attention given to impact of crime on Black Americans. Prerequisite: SOC 205.

SOC 250 Introduction to Social Research Lec. 3./Credit 3.
Introduction to multi-method approaches to social science research. The logic of sociological inquiry and the ethical issues of research. Students begin to collect and analyze data, and to compile research reports.

SOC 302 Social Inequality Lec. 3./Credit 3.
A systematic study of the structure of social inequality in American Society. Examines the consequences of economic, political and social stratification. Attention given to analysis of how class inequality is related to inequalities of race, ethnicity and gender.

SOC 303 Juvenile Delinquency Lec. 3./Credit 3.
An analysis of youthful offenders. Focus on the theory and research in the explanation of law violation among juveniles. Traces historical development of public and private institutions created to control youthful offenders.

SOC 304 Race and Ethnic Relations Lec. 3./Credit 3.
The systematic and critical study of racial and ethnic relations, as well as racism, in American society. Of special concern is the treatment of minorities by the dominant culture and the economic and political ramifications of such behavior in society.

SOC 310 Sociology of the Family Lec. 3./Credit 3.
A systematic study of the impact of social structure on the composition and experiences of families. Emphasis placed on the impact of race, socioeconomic status and gender in producing consequences for the structure and viability of the family.

SOC 312 Cultural Anthropology Lec. 3./Credit 3.
A systematic study of nonindustrial, small-scale cultures. Also deals with selected African and American-Indian societies in all their social and material ramifications.

SOC 314 Urban Problems in Sociological Perspective Lec. 3./Credit 3.
This course examines recent trends in the nature of urban life, problems of urban disadvantaged such as poverty and racism, issues of government housing policy, and transportation and the delivery of government services including social welfare, education and criminal justice.

SOC 315 Sociology of Deviance Lec. 3./Credit 3.
An in-depth sociological analysis of the criminal, medical and religious constructions and rationalizations of the social treatment of "abnormal" members in society.

SOC 320 Sociology of Black Families Lec. 3./Credit 3.
An examination of the similarities and differences between families with particular emphasis on the structure and status of Black American families. The course will examine single parent households, male-female relationships and the plight of Black children.

SOC 322 Sociology of Black Women Lec. 3./Credit 3.
Examines the theoretical and substantive issues of gender and race. The focus will include Black women's perspectives and diverse experiences within the context of the dominant society. Special emphasis is placed on interpersonal relationships and institutional arrangements affecting Black women.

SOC 324 Sociology of the World Systems Lec. 3./Credit 3.
Introduction to the world system. Inequality, conflict and change on a global level. Topics include imperialism, wars, racism, nationalism, religious fundamentalism, immigration, fascism, communism and revolutions. Comparisons between Third World people and African Americans.

SOC 309 Qualitative Research Methods Lec. 3./Credit 3.
Introduction to qualitative approaches to social science research. Examines the theoretical and practical components of the interviews; focus groups; evaluation research, applied social research, and community based action research. Students will collect and analyze data, develop and initiate original research projects.

SOC 326 Issues in the African Diaspora Lec. 3./Credit 3.
Study of selected comparative, historical, and contemporary issues faced by people of African descent throughout the world. Similarities and differences in Black experiences in Africa, the U.S., the Americas, and the rest of the world.

SOC 328 Sociology of Religion Lec. 3./Credit 3.
Critical analysis of the role of religion in American society as a social, political and economic force. Special emphasis is placed on the impact of religious organizations upon social institutions.

SOC 330 Sociology of Education Lec. 3./Credit 3.
The role of educational institutions in the reproduction of social, economic and political networks. Critically examines the construction of educational systems and their impact in American society.

SOC 346 Statistics Lec. 3./Credit 3.
Descriptive and inferential statistics. Prerequisite: SOC 250, MAT 109/110 and junior standing and/or permission of instructor.

SOC 350 Advanced Research Methods Lec. 3./Credit 3.
Advanced course in the use and interpretation of social research. Students review and critique the major social research methods; and design major research projects involving data collection and analysis for senior thesis development. Prerequisites: SOC 250, SOC 346, junior standing or permission of instructor.

SOC 351 History of Sociological Theory Lec. 3./Credit 3.
Sociological theory from early 19th century to the 1960's. An international, non-eurocentric approach. Emphasis on how theorists dealt with race, class and gender.

SOC 352 Contemporary Sociological Theory Lec. 3./Credit 3.
Study of major changes in sociological theory since the 1960's. Emphasis on the development of alternatives to functionalist sociology; the contributions of African-Americans, women, and other minority sociologists; the contributions of Third World Sociologists. Prerequisite: SOC 351.

SOC 355 Social Gerontology Lec. 3./Credit 3.
This course provides an introduction to the field of gerontology. Emphasis is placed on historical and cross-cultural issues in aging, managing chronic diseases and well-being in old age, health and long term care, and resiliency of color women and elders of color.
NOTE: All 400-level courses are considered to be advanced in their use of primary source material and amount of individual effort required on the part of the student. Library or other advanced individual research should be assumed at the senior or 400 level. Prerequisite for all 400 level courses: senior standing or permission of instructor.

SOC 400 Internship Trn./Credit 3.
The internship provides students with practical experience and application of sociological skills in community based agencies.

SOC 401 Sociology of Law Lec. 3./Credit 3.
An analysis of the sociological meaning and impact of the law, the agencies which control its use, and the critical analysis of the social constructions of legal reality.

SOC 402 Political Sociology Lec. 3./Credit 3.
A sociological analysis of struggles for political power in the U. S. and internationally. Emphasis on the political significance of race, class, and gender.

SOC 403 Victimology Lec. 3./Credit 3.
Introduces students to the theoretical and substantive issues in victimization. Explores victims and victimization in the context of social, political and economic relations.

SOC 404 Social Movements Lec. 3./Credit 3.
A sociological analysis of the history and significance of social movements. Assesses the achievements of various kinds of social movements.

SOC 405 Violence Against Women Lec. 3./Credit 3.
Provides a critical analysis of violence against women as an institution of social control. Violence is examined in the context of social and political inequality. Issues include rape, battering, sexual harassment and other forms of violence directed towards women. The impact of current legislation is examined.

SOC 406 Social Psychology Lec. 3./Credit 3.
Focusing upon the sociological conception of socialization, this course explores the role of social institutions in the creation of the individual or self.

SOC 408 Sociology of International Development Lec. 3./Credit 3.
Application of concepts derived from grand theory (functionalist and conflict perspectives) to the current global social structure, interdependence and development; an analysis of world leadership and international deviance.

SOC 311 Critical Race Theory Lec. 3./Credit 3.
This course will explore Critical Race Theory as an analytical framework that provides race-based epistemological and methodological approaches to the study of social inequalities. The course will focus on major theoretical, and ideological formulations that critically examine the role of race as a social construct that organizes everyday interactions.

SOC 412 Current Issues in Global Inequality Lec. 3./Credit 3.
In-depth analysis of selected topics in the World System. Focus on current "hot spots" and key issues, such as wars, military intervention, revolutionary movements, crises. Prerequisite: Soc. of the World System or permission of instructor.

SOC 414 Contemporary Issues in Social Policy Lec. 3./Credit 3.
This course focuses on the critical analysis of social policy, addressing issues of racial bias, institutionalized discrimination, poverty, crime and community mental health and aging. The course will examine the role of social policy in dismantling institutional bases of inequality.

SOC 415 Advanced Criminology Lec. 3./Credit 3.
In-depth review of the sociological study of the problem of crime. Critical analysis of the concept of "society" as the "cause" of crime. Analysis of how social institutions respond to crime.

SOC 416 Sociology of the African American Experience Lec. 3./Credit 3.
This course will examine origins and implications of Black life. Emergent philosophical models such as Afrocentricity, classical African-American theorists and vanguard methodological and conceptual issues will be explored.

SOC 420 Independent Study Ind. 3./Credit 3.
Independent study with an instructor concerning a special or focused topic. Prerequisite: Senior standing and permission of instructor.

SOC 422 Sociology of Sex and Gender Lec. 3./Credit 3.
This course explores women's experiences in society from a sociological perspective. Current research and theory on the social construction of gender in social institutions is examined.

SOC 453 Senior Thesis Lec. 3./Credit 3.
Students complete research project developed in Advanced Research Methods course under the supervision of a thesis advisor. Oral defense of the thesis required. Prerequisites: SOC 346, 350, 351/352.

SOC 454 Senior Seminar Sem. 3./Credit 3.
Capstone course that examines the interplay of race, class and gender in sociological analysis. Critical issues in the discipline will be explored.

SOC 455 Sociology of Race and Racism Lec. 3./Credit 3.
This course explores the meaning of race and racism in the United States, emphasizing how racist dominance is institutionalized, multi-faceted, and all encompassing. It examines how racism aims to control the cultural, economic, educational, political, legal standing, emotional and physical health, and the sexual and social interaction of the oppressed group.

SOC 456 Medical Sociology Lec. 3./Credit 3.
This course presents information on the development of medical sociology including the complexity of modern illness. Emphasis is placed on the social demography of health, health behavior and lifestyles, and health care delivery and social policy.

SOC 457 Sociology of Mental Health Lec. 3./Credit 3.
This course provides a sociological approach to studies of mental health, including theories of mental health and illness, societal reactions to mental disorders, mental illness and social status, minority status and mental health, help-seeking behaviors, community care and public policy, and mental disorders and the law.

SOC 499 Special Topics Sem.3/Credit 3.
Special topics in sociology. May be taken more than once as the topic of the course changes.

SPA (Spanish)

SPA 101 Elementary Spanish I Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

SPA 102 Elementary Spanish II Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: SPA 101 or the equivalent.

SPA 201 Intermediate Spanish I Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: SPA 102 or the equivalent.

SPA 202 Intermediate Spanish II Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: SPA 201 or the equivalent.

SPA 217 Spanish for Business and Industry
Lec. 3./Lab 1./Credit 3.
Communication in the world of business. Study of commercial and economic vocabulary, and trade and advertisement practices. Prerequisite: SPA 201 or the equivalent. May be substituted for SPA 202.

SPA 218 Spanish for Careers in Health Sciences
Lec. 3./Lab 1./Credit 3.
A course for students preparing for careers in medicine, dentistry, nursing, or allied health services. Emphasis on the ability to communicate with the patient. Prerequisite: SPA 201. May be substituted for SPA 202.

SPA 301-302 Advanced Oral and Written Expression I-II
Lec. 3./Credit 3.
Intensive practice in speaking. Review and further analysis of grammatical structures and idiomatic expressions. Prerequisite: SPA 202.

SPA 305 Hispanic Literature in English Translation
Lec. 3./Credit 3.
A study of masterpieces of Hispanic literature. May not be taken to fulfill the foreign language requirement.

SPA 306 Topics in Afro-Hispanic Literature
Lec. 3./Credit 3.
A concentration on a specific topic, author, or area of Afro-Hispanic literature. Course may be repeated under different topics. Prerequisite: SPA 202.

SPA 310 Survey of Hispanic Literature Lec. 3./Credit 3.
Survey of Spanish literature from the Middle Ages to the present. A study of representative Spanish authors and their works. Prerequisite: SPA 202.

SPA 317 Culture and Business in the Spanish Speaking World Lec. 3./Credit 3.
Specific issues related to culture and doing business in Latin America and Spain, includes a survey of Spanish language literature related to business and cultural attitudes. Emphasis on crosscultural understanding. Prerequisite:SPA 202 or SPA 217.

SPA 318 Culture and Medicine in the Spanish Speaking World II Lec. 3./Credit 3.
Specific issues related to culture and the treatment of Latino patients, includes a survey of Spanish language literature related to medicine and cultural attitudes. Discussion of cross-cultural understanding and avoidance of stereotyping. Prerequisite: SPA 202 or SPA 218.

SPA 320 Survey of the Spanish Speaking World
Lec. 3/Credit 3.
A broad survey of the Spanish speaking world beginning with the first millennium of Spanish civilization and the Pre-Columbian civilizations of Latin America through the present day. Prerequisite: SPA 202.

SPA 321-322 Introduction to Literature Lec. 3./Credit 3.
Survey of Spanish literature from the Middle Ages to the present. A study of representative Spanish authors and their works. Prerequisite: SPA 201-202.

SPA 400 Special Topics Literature Lec. 3./Credit 3.
Drama of the Golden Age
A study of selected masterpieces of the Golden Age in a variety of genres, including works by Garcilaso de la Vega, Cervantes, Lope de Vega, Calderon de la Barca, Tirso de Molina and Quevedo. Prerequisites: SPA 310.
Generation of 1898
Survey of Spanish literature of this period, including works by Unamuno, Pio Baroja, Valle Inclan, Azorin, Machado and others. Students will examine primary texts and explore the readings and philosophies of this period. Prerequisite: SPA 310.
Latin American Novel
A study of selected masterpieces of Peninsular literature based upon representative authors. Prerequisites: SPA 310.
Modern Peninsular Literature
A study of selected masterpieces of Peninsular literature based upon representative authors. Prerequisite: SPA 310.

Culture/Civilization Contemporary Mexican Culture
A comprehensive study of Mexico including the Mexican Revolution, political parties, the economy, education, demographics, the family democratization, customs, art, literature and religion. Emphasis on acceleration of oral and written Spanish Proficiency. Contemporary Culture in Modern Spain A comprehensive study of Spain including the Spanish Civil War and the domination of Franco. Continues through Spain's democratic transition and its coexistence with the Spanish Monarchy. Includes a study of economic, social, and artistic issues in Modern Spain.

Gender and Race in Latin America
A study of Latin American women intellectuals of varied social and racial backgrounds. Includes as a theoretical assumption that race and gender are socially constructed and therefore intersect. Women studied Lydia Cabrera and Gabriela Mistral.

SPA 405 Advanced Proficiency Practice for Majors Lec. 3./Credit 3.
Designed as an intensive course for majors in order to refine and perfect their productive language proficiencies, speaking and writing. Intensive practice in presenting oneself, debating, negotiating, expressing emotion, presenting abstract concepts, and other higher level communicative skills. Infusion of authentic materials to serve as models for practice activities. Corrective work and final oral written project required.

SPA 406 Afro-Hispanic Literature Lec. 3./Credit 3.
A broad survey of Afro-Hispanic literatures by and about peoples of the diaspora and cultures of the Spanish speaking world. Features in-depth study of selected works representative of a variety of Afro-Hispanic authors. Prerequisite: SPA 310.

SPA 412 Modern Latin American Literature Lec. 3./Credit 3.
Study of 20th century Latin American authors. Prerequisite: SPA 310.

SPA 414 Structure of Spanish Lec. 3./Credit 3.
A study of the sound system of Spanish with in-depth work from applied perspectives. Contrastive and comparative analysis of Spanish and English with strong emphasis on pronunciation practice. This course will serve as an introduction to Spanish linguistics. It will consist of a scientific examination of the descriptive phonology and morphology of modern Spanish, as well as its historical sound changes, semantic and lexical development from Latin.

SPA 417 Advanced Business Oral and Written Communication I Lec. 3./Credit 3.
Emphasis on written and oral communication skills in Business Spanish. Includes practice in common business communicative functions including telephone conversations, tele-conferencing, professional presentations, sales calls, etc. Prerequisite: SPA 317.

SPA 418 Advanced Medical Terminology Lec 3./Credit 3.
Advanced understanding of medical terminology to include anatomy, diseases, pathology, and other specialized vocabulary, also review of cognate formation, idiomatic expressions and grammar.

SPA 419 Senior Capstone/Case-Studies Lec. 3./Credit 3.
Each student will be guided in the production of a major research project focusing on their concentration. The project will then be defined in public forum and approved by a faculty committee. Case Studies in Medical Spanish Students will research in-depth a case or clinical study, complete a research paper in Spanish under the directions of a co-curricular faculty team and make an oral presentation of their work before a panel of faculty members.
Case Studies in Business Spanish
Students will research in-depth an international business case study, complete a research paper in Spanish under the direction of a co-curricular faculty team and make an oral presentation of their work before a panel of faculty members.

SPA 420-421 Advanced Hispanic Civilization I and II Lec. 3./Credit 3.
In depth analysis of the Spanish speaking world beginning with the first millennium of Spanish civilization and the Pre-Columbian civilizations of Latin America. The course then focuses on the encounter of European, Indigenous and African peoples and the resultant cultural fusion concluding with an analysis of contemporary cultural, social and political developments in Spain and Latin America. Prerequisite: SPA 320.

SPA 422 Advanced Medical Communication Lec. 3./Credit 3.
Advanced interviewing skills and practice, use of medical forms, bio-socio-psycho-interviewing, emphasis on oral communication and proficiency. Prerequisite: SPA 418.

SPA 423 Advanced Business Oral and Written Communication II Lec. 3./Credit 3.
Emphasis on written and oral communication skills in Business Spanish. Includes practice in common communicative functions including business correspondences, e-mail, fax, and preparation of professional business reports and avoidance of stereotyping. Prerequisite SPA 417.

SPA 430 Advanced Translation Technologies Lec. 3./Credit 3.
A course designed to acquaint the student with new and emerging translation technologies, including special computer and Internet applications and programs. There is a strong grammar component concentrating on idioms, syntax, vocabulary, and structure. Emphasis on writing and communicative proficiency.

SPA 440 Experiential Learning Credit 0-3.
Can include study abroad, research abroad, domestic or international internships. This requirement may be waived by the Program Director based upon previous experience, as in the case of heritage speakers, etc.

SPE (Special Education)

SPE 111 Survey of Exceptional Children Lec. 3./Credit 3.
An introductory course on the exceptional child. Etiology, characteristics, and incidences of exceptionality will be explored in historical perspective. The course is designed to provide an overall concept of educational implications to the exceptional child as well as Special Education as a profession.

SPE 201 Characteristics of the Mentally Retarded Lec. 3./Credit 3.
Introduction to the complexities and characteristics of mental retardation. Physiological, psychological and educational implications of considered diagnosis and planning are stressed.

SPE 202 Emotional Disorders of Children Lec. 3./Credit 3.
Study of the classification of behavior and personality characteristics which have implications for the selection of educational techniques to deal with the child's educational difficulties.

SPE 203 Learning and Behavior Disorders in Children Lec. 3./Credit 3.
Introduction to the complexities and characteristics of children and youth with learning and behavior disorders. Attention will be given to the classification of behavior, personality, and learning characteristics which have educational implications for the learning and behavior disordered child.

SPE 303 Curriculum and Methods for Teaching the Mentally Retarded Lec. 3./Credit 3.
This course is a study of techniques and methods dealing with curriculum organization for the mentally retarded child. Major emphasis will be on curriculum adjustment, specialized methods and techniques of evaluation, demonstration and participation with the mentally retarded. Attention will be given to (1) primary (EMR), (2) intermediate (EMR), (3) secondary (EMR), and (4) severely retarded (TMR).

SPE 305 Practicum in Special Education Credit 3.
Supervised clinical/school practice with small groups of children manifesting learning and behavior disorders located in academically oriented self-contained resource room and/or consulting education situations. Practicum involves direct experience with children in a supervised seminar to discuss and evaluate teaching strategies. Prerequisites: All Special Education coursework.

SPE 307 Introduction to Sign Language Lab 1./Credit 1-2.
A basic course in manual communication designed for the beginner (Levels 1-2). A minimum expressive and receptive vocabulary of 300 words in signed English in addition to finger spelling.

SPE 308 Teaching Language Development to the Hearing Impaired Lec. 3./Credit 3.
Emphasis upon cognitive development, principles and techniques for teaching language to the hearing impaired and multi-handicapped child.

SPE 309 Teaching Procedures for Learning and Behavior Disordered Children Lec. 3./Credit 3.
A study of instructional approaches for education of learning disabled and behavior disordered students. Designed to familiarize students with the selection, evaluation, and adaptation of materials and techniques for teaching special students. The development of the individualized educational plan will be included.

SPE 402 Practicum II in Special Education Credit 3.
Provides students with supervised laboratory experiences in the areas of mental retardation, emotionally disturbed and learning disabilities.

SPE 404/504 Individual Educational Plans for Exceptional Children Lec. 1./Credit 1.
Course content includes development of behavioral objectives, task analysis, and applied behavior analysis for the development of individualized educational plans for exceptional children.

SPE 405/505 Parent/Professional Relationships Lec. 1./Credit 1.
Course content will focus on the characteristics and roles of parents and other professionals in the education of exceptional children. Skills in interpersonal relations with parents and other professionals will be a major component within the course.

SPE 406/506 The Exceptional Student in the Regular Classroom Lec. 1./Credit 1.
Rationale, educational programming, and instructional procedures for educating exceptional children in the regular classroom; emphasis on the role of the regular classroom teacher.

SPE 408 Diagnostic, Prescriptive Teaching and Planning in Special Education Lec. 3./Credit 3.
Emphasizes specific competencies of applying educational assessment to the development of strategies for teaching exceptional children. Instruction leads to demonstrated competence in prescriptive teaching. To be taken in conjunction with practicum.

SPE 409 Diagnostic Prescriptive Diagnosis and Teaching Practicum Credit 3.
Involves one semester (60 to 90 contact hours each semester) of sequenced direct involvement with exceptional children. This practicum will include supervised clinical training in assessment, planning, and prescriptive teaching. Placements will be developed for both individual and small group experiences based on students' professional objectives.

SPE 411 Student Teaching in Special Education Credit 6-12.
A teaching experience in an educational setting according to the students' endorsement. This experience will be in an approved Special Education program under direct supervision of the cooperating teachers and college faculty.

SPE 416 Psychosocial Implications of Deafness Lec. 3./Credit 3.
Psychological, social, and learning problems related to the education of the hearing impaired.

SPE 418 Intermediate Sign Language Lec. 1-2./Lab 1./Credit 1-2.
Intermediate level of sign language. Development of speed and flexibility in expressive and receptive skills, in addition to an introductory survey of signing exact English, seeing essential English, and American Sign Language. Prerequisite: SPE 307 or proficiency as determined by instructor.

SPE 419 Teaching Procedures for the Hearing Impaired Lec. 3./Credit 3.

History of education; social and legal problems relating to the education of the hearing impaired. Principles and methods of teaching reading, social studies, arithmetic and science to the hearing impaired youngster, media development and utilization. Prerequisite: Introduction to Audiology, CDS 331.

SPE - Special Education Undergraduate/ Graduate

SPE 500 Independent Study Credit 3.

To encourage students to independently explore a specific research topic under the supervision of a faculty member. This will include, but is not be limited to, a unique case study, extensive reading in an area of interest, participation in department of interagency clinics, workshops, etc., or such other independent studies that would contribute to the professional growth of the student.

SPE 501 Remedial Techniques in Teaching Language Arts Lec. 3./Credit 3.

Study of the modification of the content of language arts programs and the methods of presentation to meet the needs of children with learning disabilities and considerable impairment in neurological and educational functioning.

SPE 502 Guidance of the Underprivileged Child Lec. 3./Credit 3.

Emphasis directed toward the development of more effective curricula and teaching strategies in terms of a humanistic understanding of the cultural and other differences represented by the underprivileged child.

SPE 503 Remedial Reading for Exceptional Children Lec. 3./Credit 3.

Basic course in recognizing and addressing various reading problems. Supervised teaching experience using corrective and remedial techniques for children with disabilities.

SPE 504 Individual Education Plans for Exceptional Children Lec. 1./Credit 1.

Course content includes development of behavioral objectives, task analysis, and applied behavior analysis for the development of individualized education plans.

SPE 505 Parent/Professional Relationships Lec. 1./Credit 1.

Course content will focus on the characteristics and roles of other professionals and parents in the education of exceptional children. Skills in interpersonal relations with parents and other professionals will be a major component within the course.

SPE 506 Mainstreaming: The Exceptional Student in the Regular Classroom Lec. 1./Credit 1.

Rationale, educational programming, and instructional procedures for educating exceptional children in the regular classroom; emphasis on the role of the regular class teacher.

SPE 507 Student Teaching Credit 3.

A teaching experience in an educational setting according to the student's concentrative area. Experience will be in an approved special education program under direct supervision of the cooperating teachers and university faculty.

SPE 508 Diagnostic, Prescriptive Teaching and Planning in Special Education Lec. 3./Credit 3.

Emphasis is directed toward the development of specific competencies necessary to utilize educational assessment results to prepare individual education plans, and effectively plan lessons for children and youth with special needs. Instruction leads to demonstrated competence in prescriptive teaching. To be taken in conjunction with practicum.

SPE 509 Practicum in Diagnostic, Prescriptive Teaching and Planning Credit 1.

Involves a sequence of direct involvement with exceptional children through supervised clinical assessment to educational planning and prescriptive teaching experience.

SPE 510 Introduction to Early Education for the Children with Disabilities Lec. 3./Credit 3.

This course provides an introduction to program models which address the education of preschool children with disabilities. Curriculum, legislation, and issues and trends in the education of young children with disabilities are presented.

SPE 511 Characteristics of Severe/Profound/ Multihandicapped Children Lec. 3./Credit 3.

This course incorporates the study of etiology, characteristics, types of, and prognosis for, severely/ profoundly/multihandicapped populations. A survey of administrative arrangements including institutional school and community programs will be provided along with an overview of research findings applied to the education of the severely/profoundly/multihandicapped individual.

SPE 515 Applied Behavior Analysis Lec. 3./Credit 3.

The content of this course will focus on the advanced concepts of applied behavior analysis procedures in instructional design and behavior management. Topics will include training strategies, measurement, data-based programming, and the element of field-based teacher research methods.

SPE 516 Psychosocial Implications of Deafness Lec. 3./Credit 3.

This course investigates the psychological, social and learning problems related to the education of individuals with hearing impairments and deafness.

SPE 517 Remedial Techniques in Reading and Language Lec. 3./Credit 3.

A study of the modification of content of reading and language arts programs and the methods of presentation to meet the needs of students with learning disabilities and emotional disorders. Emphasis will be placed on focus on theoretical models as well as practical applications in reading and language arts.

SPE 518 Sign Language for Individuals with Hearing Impairments and Deafness Lec. 3./Credit 3.
A survey of various methods of manual communication used by individuals with hearing impairments and deafness to enhance comprehension. Study and practice of signed English and fingerspelling in the context of total communication.

SPE 519 Teaching Procedures for Individuals with Hearing Impaired Lec. 3./Credit 3.
Principles and methods of teaching reading, social studies, mathematics and science to the children and youth with hearing impairments; media development and utilization. Prerequisite: CDS 331, Introduction to Audiology.

SPE 520 Teaching Language Development to Individuals with Hearing Impairments Lec. 3./Credit 3.
This course emphasizes cognitive development, principles and techniques for teaching language to children and youth with hearing impairments and multiple disabilities.

SPE 521 Survey of Exceptional Children Lec. 3./Credit 3.
An introductory course on the exceptional child. Etiology, characteristics, and incidences of exceptionality will be explored utilizing current and historical perspectives. The course is designed to provide an overall concept of educational implications for exceptional children as well as implications for special education as a profession.

SPE 522 Trends and Issues in Special Education Lec. 3./Credit 3.
This course is designed to explore current trends and issues in special education, and examine the intent and extent of the Individuals with Disabilities Act (IDEA). A review of special education litigation and policies impacting the global society and the educational process will be addressed as well.

SPE 523 Collaboration and Consultation in Special Education Lec. 3./Credit 3.
A course designed to study interactive teaming within schools to address the needs of exceptional and at-risk learners. Team, multidisciplinary and interdisciplinary models are discussed along with models for consultation. Emphasis is placed on approaches to teaming, whole-school staff development, and empowerment of parents and professionals for school-based management.

SPE - Special Education Graduate Only

SPE 603 Teaching Language Development for Individuals with Hearing Impairment Lec. 3./Credit 3.
This course emphasizes cognitive development, principles and techniques for teaching language to children and youth with hearing impairments and multiple disabilities.

SPE 604 Survey of Exceptional Children Lec. 3./Credit 3.
An introductory course on the exceptional child. Etiology, characteristics, and incidences of exceptionality will be explored utilizing current and historical perspectives. The course is designed to provide an overall concept of educational implications for exceptional children as well as implications for special education as a profession.

SPE 605 Principles of Learning Lec. 3./Credit 3.
Examination of principles and theories of learning, including behavior modification and classroom management techniques. Investigation of the role of individual and group experience, purposes of the learner, problem-solving experiences, development of critical thinking, etc., in the modification of learning behavior. Analysis of the effect of the learner's attitude on his unique perceptions in the learning process. Interpretation of motivation and its effect on the learner and a study of principles involved in evaluation of effective learning.

SPE 606 Characteristics of Children with Learning Disabilities Lec. 3./Credit 3.
This course provides an introduction to characteristics, assessment procedures, and instructional practices associated with children and youth with specific learning disabilities. Historical accounts of theory and practice associated with specific learning disabilities are also explored.

SPE 607 Teaching Children with Learning Disabilities Lec. 3./Credit 3.
Study of the existing theories and instructional programs for children with learning disabilities. Individualized programming is emphasized. Principles drawn from observation of children in action. Theory underlying practice discussed in relation to cumulative nature of the learning process, analysis of readiness, selection and use of materials, structure in the classroom, behavior and attitude modification.

SPE 608 Psychoeducational Diagnosis Lec. 3./Credit 3.
Study of the use of psychological, educational, social, and physical assessment procedures and the utilization of results in diagnosing learning strengths and challenges. Test administration, interpretation, and the development of diagnostic/prescriptive reports form the course foci.

SPE 609 Supervised Practicum and Student Teaching of Children with Learning Disabilities Credit 6.
Directed practicum in planning, implementing, and evaluating classroom activities for children with learning disabilities. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 610 Clinical Internship I (Learning Disabilities, Emotional Disabilities) Credit 3-6.
Supervised clinical practice with small groups of children identified as having special needs. The practicum will involve direct experience with youngsters with disabilities, and will be supervised by university faculty in each disability category. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 611 Practicum I (Elementary) Lec. 3./Credit 3.
Practicum includes observations and participation in various degrees in grades K-5. Students observe children engaged in learning activities: the use of instructional methods and materials, and behavior management techniques employed by cooperating teachers and university supervisors. Students act as teacher assistants. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 612 Practicum II (Primary, Junior and Senior) Lec. 3./Credit 3.
Supervised experience to meet a special or unique need. Provides students with supervised laboratory experiences in the areas of mental retardation, emotional disturbance and learning disabilities. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 613 Emotional Disorders of School-Aged Children Lec. 3./Credit 3.
This course provides a study of the classification of behavior and personality characteristics which have implications for the selection of educational and clinical strategies to deal with the child's educational progress. The focus of the course is a developmental perspective beginning with normal development and considering children and youth with mild to severe difficulties.

SPE 614 Curriculum Adaptation Seminar I Sem. 1./Credit 1.
This course is to be taken in conjunction with SPE 610. It will focus on developing alternative course content and materials selection for actual students who are experiencing academic difficulty in subject areas.

SPE 615 Clinical Internship II (Emotional Disturbance and Learning Disabilities) Lec. 3./Credit 3-6.
The course is designed to provide direct involvement with children and youth with learning disabilities and/or emotional disorders in public schools. Emphasis is placed on the application of educational curriculum and behavior management strategies employed to meet the unique needs of these disability groups. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 616 Procedures for Teaching Individuals with Emotionally Disturbance Lec. 3./Credit 3.
A methods course designed to integrate teaching theories and practice. This course includes materials taken from psychology of learning, educational diagnosis, social interaction, and behavior management models.

SPE 617 Curriculum Adaptation Seminar II Sem. 1./Credit 1.
This course is to be taken in conjunction with SPE 615. The major focus will be directed toward an awareness of secondary curriculum and specific methods and materials which can be used to teach concepts in the general curriculum to youngsters who are functioning below grade level in subject areas.

SPE 618 Developmental Assessment and Program Planning for Children with Early Childhood Disabilities Lec. 3./Credit 3.
This course is designed to teach methods for assessing educational development in children with early childhood handicaps. This course also covers the use of assessment data in planning programs for children with early childhood disabilities.

SPE 621 Seminar I in Teaching Children with Early Childhood Disabilities Sem. 1./Credit 1.
To be taken with SPE 618. The study engages student interns in an examination of issues relevant to direct interaction with children exhibiting developmental delays. Group discussions, mini-lectures and individual projects form the core of course activity.

SPE 623 Seminar II in Teaching Children with Early Childhood Disabilities Sem. 1./Credit 1.
The course is designed to assist student interns when confronted with children with Early Childhood Handicaps (ECH), programs for children with ECH, and parents of children with ECH. The course is to be taken with SPE 618.
SPE 627 Infant Development of Medical

Aspects of Exceptionality Lec. 3./Credit 3.
The course will focus on human growth and development during preand perinatal stages and the early childhood years. Medical aspects of exceptionality as well as the impact of environmental and hereditary risk on growth and development will be examined.

SPE 629 Supervised Teaching in Special Education Credit 3-6.
A supervised teaching course is to provide credit options for those individuals who wish to obtain additional Special Education endorsements beyond their area specialty. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 630 American Sign Language (ASL) Lec. 3./Credit 3.
This course will prepare the individuals to communicate more effectively with deaf individuals receptively and expressively through the understanding of conceptual development of signs, syntactical structures and gestures and facial expressions used by the deaf community in sign language communication. Prior approval of the instructor is required for registration in the course. Prerequisite: basic sign language.

SPE 631 Characteristics of Children with Autism Lec. 3./Credit 3.
A study of the characteristics and etiology of childhood autism. The course will focus on the historical development, test research findings and applied trends and issues.

SPE 632 Clinical Internship Autism I Credit 3-6.
Supervised clinical/school practicum for teaching children with autism. The practicum will move from orientation and observation to full participation with supervision provided by faculty and site personnel. Permission of advisor is required. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 633 Clinical Internship Autism II Credit 3-6.
Supervised clinical/school practicum for teaching children with autism. Emphasis will be on full development of behavior management and implementation of methods and materials in teaching children with autism. Prerequisite: Clinical Internship I.

SPE 634 Seminar I Methods and Materials for Teaching Children with Autism Sem. 1./Credit 1.
This course is to be taken in conjunction with Clinical Internship: Autism I. The course is designed to develop and adapt materials and methods to meet the needs of children with autism.

SPE 635 Seminar II Methods and Materials for Teaching Children with Autism Sem. 1./Credit 1.
This course is to be taken in conjunction with Clinical Internship: Autism II. The course is designed to refine skills of developing and adapting materials to meet the needs of children with autism.

SPE 636 Clinical Internship LD I Credit 3-6.
This course is a supervised clinical school practicum that will provide interns with observation and experience in working with youngsters in learning disabilities settings. Responsibilities gradually increase under the direct guidance of site personnel in consultation with the faculty supervisor. Approval by advisor is required. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 637 Clinical Internship in Learning Disabilities Credit 3-6.
This course is advanced supervised clinical/school practicum that will provide the intern with more independent responsibility with youngsters in a learning disabilities setting. Emphasis will be on completing competencies necessary for full professional development. Approval by advisor is required. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 640 Internship-Early Childhood/Elementary Level Trn./Credit 12.
Culminating experience involves student in assuming full responsibility for the management and instruction of classes in an elementary school under close clinical and University supervision. Student will be assessed using the format and criteria designed by the department. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

SPE 650 Internship Seminar Sem. 1./Credit 1.
Designed for education majors engaged in student teaching; discussion of problems, review of lesson and unit plans, and other topics associated with the student teaching process. Student must be enrolled in a student teaching or internship course.
STA (Statistics – Graduate)

STA 600 Statistics Lec. 3./Credit 3.
An interdisciplinary course for graduate students. Procedure of data reduction presentation and measures of central tendency, variability, and relations are presented to develop both an understanding of and an ability to utilize descriptive and inferential statistics. Permission of the instructor.

STR (String Instrument Music Performance)

STR 107-108, 207-208, 307-308, 407-408 Major Performance Performance Class 1. Stu. 2./Credit 2-3.
A progressive sequence of advanced, individual, and class instruction in string instruments. Emphasis on essential playing skills and performance of a wide range of musical styles. Class instruction on a related instrument in the category of major instrument designed to develop basic musicianship through studies in technique development and the performance of basic representative literature.

SWA (Swahili)

SWA 101 Elementary Swahili I Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

SWA 102 Elementary Swahili II Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: SWA 101 or the equivalent.

SWA 201 Intermediate Swahili I Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: SWA 102 or the equivalent.

SWA 202 Intermediate Swahili II Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: SWA 201 or the equivalent.

THE (Theatre)

THE 116-117, 216-217, 316-317, 416-417 Theatre Arts Practicum Credit 1.
A development of practical nonperformance Speech Communication and Theatre Arts projects. In order to receive credit, students must fulfill specific requirements outlined by the faculty member directing the project.

THE 119 Performance Workshop Lec. 3./Credit 3.
A study and application of improvisational techniques with emphasis on physical and mental awareness of self and environment. Course makes use of intuitive instincts, pantomime, theatre games and concentration exercises for teaching stage presence, confidence and discipline and identifying inhibitions.

THE 120 Introduction to Theatre Lec. 3./Credit 3.
An introduction to the elements of dramatic literature and its historical, theoretical, sociological and entertainment value in man's culture, from the classical to the contemporary period.

THE 125 Oral Interpretation Lec. 3./Credit 3.
A study and application of techniques used to present literature orally. The major emphasis will be on vocal effectiveness in conveying meaning, emotion and characterization.

THE 201 Stagecraft I Lec. 3./Credit 3.
An intensive study of theatre organization and technology. Emphasis is placed on scene construction, lighting, sound, costuming and make-up. Drafting is introduced. One hour lab required.

THE 202 Stagecraft II Lec. 3./Credit 3.
A study of costuming and make-up. It is a continuation of stagecraft I and completes the core requirements in technical theatre. It includes make-tip creations and an introduction to the use of masks and emphasizes costume and construction and experimentation with various materials to create functional designs. One hour lab required.

THE 205-206 Theatre History Lec. 3./Credit 3.
A comprehensive survey of the theory and history of theatre from Greek periods to modern periods. It examines outstanding playwrights, productions, designers and actors.

THE 233 Acting I Lec. 3./Credit 3.
Emphasis on the training of the actor, especially physical and vocal tuning, character analysis, techniques of monologues and scene analysis in contemporary dramatic situations. Students are urged to participate in directing projects.

THE 252 Playwriting I Lec. 3./Credit 3.
The study of the basic principles of playwriting is the focus of this course. From start to finish, the student will complete a one act play as the final project. The student will learn how to develop plot, character, thought, diction, sound and spectacle in the original drama. Prerequisite: ENG 102.

THE 301 Costuming and Make-Up Lec. 3./Credit 3.
An examination of the basic principles of costuming for the stage, including its history, design and construction; also, the course examines the basic principles of theatrical make-tip, its materials and methods.

THE 305 Directing I Lec. 3./Credit 3.
A study of the fundamentals of directing a play. Play selection, script analysis, the artistic approach, the handling of personnel and other related issues are investigated. The directing of a one act play is required. Students in THE 233 and 333 are available for participation in directing projects.

THE 306 Directing II Lec. 3./Credit 3.
A study of the performance styles and techniques of directing, including the study and production of scenes from period plays.

THE 319 Improvisational Workshop Lec. 3./Credit 3.
A study of acting as a tool for stimulation in short scenes and plays. The study of mime, movement and Commedia dell' Arte are used in the creation of a short play.

THE 326 Organizational Communication Lec. 3./Credit 3.
An analysis of the Communication Audit — the upward, downward and horizontal flow of information. Students will design and implement intervention strategies to enhance communication within changing organizational cultures.

THE 333 Acting II Lec. 3./Credit 3.
Training for the actor specializing in the physical and vocal techniques necessary for executing roles in different acting styles, including Greek, Commedia dell' Arte, Shakespearean, French Neoclassical, Restoration, Melodrama and Epic. Prerequisite: THE 233 or approval of instructor.

THE 340 Theatre Management Lec. 3./Credit 3.
An examination of theatre management, with an emphasis on publicity, public relations, box office management, ticket sales and budgeting.

THE 345 Black American Theatre Lec. 3./Credit 3.
A study of historical and contemporary plays, theatre personnel and actors of Black America. It surveys the dramatic literature and producing organizations of the genre.

THE 352 Playwriting II Lec. 3./Credit 3.
Each advanced student is guided in the development and completion of a full-length play. Prerequisites: ENG 102 and THE 252.

THE 355 Technical Theatre Workshop I (Stagecraft and Lighting) Lec. 3./Credit 3.
An introduction to the construction and rigging of stage scenery and lighting. The basics of lighting and scene design for stage and television are also taught.

THE 356 Technical Theatre Workshop II Lec. 3./Credit 3.
A study of the construction of costumes, masks and special effects for the theatre.

THE 362 World Drama Lec. 3./Credit 3.
An intensive study of the roots of drama in ritual and nondramatic literature and plays from the Ancient Greek period to 1642. Emphasis is on ancient Greek, Roman, Italian, Oriental, Spanish and early English drama Attention is paid to the plays as literature and as historical artifacts for the theatre.

THE 364 Modern Drama Lec. 3./Credit 3.
An intensive analysis of the works of Ibsen, Strindberg, Chekhov, Shaw, Pirandello and Brecht. The class investigates the role of each playwright in a national theatre, his style and contribution to the development of a comprehensive view of modernism in the theatre.

THE 400 Cooperative Internship Experience Lec. 3./Credit 3.
Coordinated, structured off-campus work experience related to course of study in Theatre Arts. Work programs designated to provide a variety of practical experiences for the student.

THE 403 Scene Design Lec. 3./Credit 3.
A historical survey of spectacle, from the Greeks to the present. Students learn the principles of design and produce settings for current productions. Rendering and model building are required. Drafting is essential.

THE 404 Costume Design for Theatre and Dance Lec. 3./Credit 3.
A historical survey of dress in order to achieve proficiency in designing costumes for various styles of theatrical production. Rendering and costume construction are required. Sewing is essential.

THE 419 Dramatic Theory and Criticism Lec. 3./Credit 3.
A seminar in the history and principles of dramatic criticism. The different forms and genres of literature will also be investigated.

THE 420-421 Independent Study Lec. 3./Credit 3.
A course providing qualified students an opportunity to conduct research in a specific area of Theatre Arts. Areas studied vary with the needs and interests of the student and the faculty member supervising the project.

THE 422 Senior Project Pjt. 3./Credit 3.
Students will write, direct, act, design or choreograph a project under the direction of a Music and Performing Arts faculty member; a written report on and oral defense of the project are required.

THE 524-525 Seminar in Contemporary Theatre Lec. 3./Credit 3.
A survey of current trends in theatre and related arts. Students investigate techniques for teaching theatre at the primary and secondary education levels. Course suggested for teacher recertification.

UNV (University Life)

UNV 101 The Individual and Life Lec. 2./Online/Credit 1.
A one-semester required orientation course designed to improve the quality of the freshman experience for entering students by helping them understand the purpose and value of higher eduction at Hampton University, as well as the larger context in which that education takes place and the multicultural nature of the problems and concerns which it addresses; to develop positive attitudes toward the teaching learning process; and to acquire coping skills essential for successful college life.

UNV 200 Honors Service Learning Seminar Sem. 1./Credit 1.
A seminar course designed to unite academic study and community service. A minimum of 50 hours of community service is required. Both oral and written seminar presentations are required for each student. Prerequisite: Admission to Honors College or permission of Director of Honors College.

UNV 290 University Honors Seminar I Sem. 1./Credit 1.
This seminar course promotes interdisciplinary exchanges that focus on the theme of man's relation to the environment and culture. The topics change and are varied; therefore, a student may take more than one UNV 290 seminar. There is no prerequisite.

UNV 300 Honors Junior Preparation Sem. 1./Credit 1.
In this seminar, students will investigate resources and sharpen skills that are required to become marketable and successful in securing entry and financing for graduate studies and/or the upper echelons of the workforce.

UNV 340 University Honors Special Topics V Sem. 1./Credit 1-3.
This seminar course promotes interdisciplinary exchanges that focus on the theme exploring other nations, religions, or situations beyond our borders.

UNV 350 University Special Project VI Sem. 1./Credit 1-3.
The seminar is a continuation of UNV 340. The focus is on designing an interdisciplinary project that addresses issues/problems raised in UNV 340. Whenever feasible, international travel will be a part of the seminar experience.

UNV 390 University Honors Seminar II Sem. 1./Credit 1.
An interdisciplinary course, this seminar focuses on issues and topics especially related to the concept of diversity. The concepts change and are varied; therefore, a student may take more than one UNV 390 seminar.

UNV 400 Honors Independent Study Capstone Seminar Sem. 1./Credit 1-3.
Using an interdisciplinary research approach, students will select a topic not directly related to their majors to study independently. Prerequisite: Senior Status and admission to Honors College or permission of Director of Honors College.

VOI (Voice)

VOI 103-104, 203-204, 303-304, 403-404 Minor Performance Stu. 2./Credit 1.
Individual lessons in the minor performing medium. Special emphasis on the development of a thorough foundation, posture, breathing, attack, agility, articulation, shading, control of power, and diction. Repertory includes vocalizing, folk songs, and arias chosen from basic vocal literature. Non-majors must have departmental permission to enroll.

VOI 105-106 Voice Class Stu. 2./Credit 1.
Study of voice production and building of thorough foundation: posture, breath control, and diction. Critical observation of classmates.

VOI 107-108, 207-208, 307-308, 407-408 Major Performance Class 1. Stu. 2./Credit 2-3.
Individual instruction with emphasis on the development of vocal techniques; diction—English, French, Italian, and German literature; style and interpretation; and public performance. Class meets three times weekly, plus one hour area workshop.

VOI 205-206 Voice Class Lec. 2./Credit 1.
Continuation of Voice Class 105-106, with continued emphasis on posture, breath control, and diction; and critical observation of self and other students.

VOI 507-508 Major Voice Performance Class 1 Stu. L./Credit 2.
Continuation of major applied study beyond the public recital. Prerequisite: VOI 408.

Course Descriptions – Hampton University Online

Symbols for Course Descriptions
100, 200, 300 & 400-level courses may be taken by undergraduate students.

500-level courses may be taken by graduate or undergraduate students.

600, 700 and 800 -level courses may only be taken on the graduate or professional level.

Example Course Description:

PSY0 205 Social Psychology (1)
Lec. 3./ Lab 0.Online/Credit 3.
Survey of traditional and contemporary topics with an emphasis on theory and methods of social psychology. Prerequisite: PSYO 203.

Symbol:

PSYO	Course acronym – PSYO for Psychology Online
205	Course number – undergraduate level course
(1)	Course offered first semester only.
(2)	Course offered second semester only.
Lec. 2.	Two hours lecture per week.
Lab 0	Zero hours laboratory each week.
Sem. 2.	Two hours seminar each week.
Credit 3.	Number of credit hours for the course.
Cln.	Clinical
Cop.	Co-op
Ind.	Independent Study
Online	Taught in online format
Trn.	Internship
Pjt.	Project
Stu.	Studio
Wks.	Workshop

Please see the latest scheduling guide or online catalog for frequency of course offerings.

ACCO (Accounting – Online)

ACCO 203 Accounting Principles I Lec. 3./Online/Credit 3.
An introduction to principles and practices with emphasis on the sole proprietorship, servicing and merchandising companies. The accounting cycle is applied to the analysis of transactions resulting in preparation, analysis and interpretation of financial statements. Prerequisite: MATO 117 or higher.

ACCO 204 Accounting Principles II Lec. 3./Online/Credit 3.
An introduction to principles and practices with emphasis on the partnership and corporate forms of business including manufacturing companies. It incorporates managerial concepts in planning, controlling, analyzing and internal reporting as it affects the decision-making process and emphasizes the preparation and analysis of the statement of cash flow. Prerequisite: ACCO 203.

ARAO (Arabic – Online)

ARAO 101 Elementary Arabic I Lec. 3./Online/Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

ARAO 102 Elementary Arabic II Lec. 3./Online/Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: ARA 101 or the equivalent.

ARAO 201 Intermediate Arabic I Lec. 3./Online/Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: ARA 102 or the equivalent.

ARAO 202 Intermediate Arabic II Lec. 3./Online/Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: ARA 201 or the equivalent.

ARAO 301-302 Oral and Written Expression I-II
Lec. 3./Online/Credit 3.
These courses are intended to refine students' proficiency of the Modern Arabic Language through the study of authentic works: newspapers, articles, literary works, media information, current events, other topics of interest. Focus is communicative.

ARAO 303 Reading and Composition
Lec. 3./Online/Credit 3.
Exposes students to modern texts and essays.

ARAO 304 Advanced Arabic Lec. 3./Online/Credit 3.
Introduces students to the cultures and history of the Arabic speaking region. Students discuss areas such as politics, sociology, economics and history. Emphasis on expanding grammar, and vocabulary.

ARAO 321 Topics in Arabic Prose Lec. 3./Online/Credit 3.
Students will acquire knowledge of social, intellectual and political concerns through the study of the works of important writers, for example, Nagib Mahfonz, Taha Husein, and Ehsa Abd El Qudus.

ARAO 404 Colloquial Arabic Dialect
Lec. 3./Online/Credit 3.
Introduces many dialects of the Islamic world. Emphasis on conversation.

ARAO 440 Experiential Learning Lec. 3./Online/Credit 3.
Can include study abroad, research abroad, domestic or international internships.

ARTO (Art – Online)

ARTO 200 Understanding the Arts Lec. 3./Online/Credit 3.
An orientation of cultural arts for the major/non-art major. Analysis, criticism, evaluation, and aesthetic considerations.

ARTO 305 Art History Survey I (1) Lec. 3./Online/Credit 3.
Illustrated lecture course covering chronological development of art from the prehistoric through Renaissance periods. Emphasis upon recognition of style and relationship of art to the age in which it was produced.

ARTO 306 Art History Survey II (2)
Lec. 3./Online/Credit 3.
History of art from Renaissance to the present day. Emphasis upon the recognition of style and relationship of art to the age in which it was produced.

ARTO 407 History of African American Arts
Lec. 3./Credit 3.
A survey course of Black American Art

AVNO (Aviation – Online)

AVN/AVNO 153: Aviation Foundations I Lec. 3./Credit 3.
Provides an overview of aviation, and introduces students to the many opportunities and challenges of the profession. The course covers the fundamentals of flight aerodynamics and technology, and an introduction to aircraft systems and operations. Also, safety of flight, human factors, aeronautical chart interpretation, basic navigation, an introduction airspace, and aviation weather factors are covered.

AVN/AVNO 154 Aviation History Lec. 3/Credit 3.
Provides the history of aviation through an in-depth study of flight and focuses on the development of civil, commercial, and military aviation. The course covers noteworthy events and people throughout aviation history from the first flight through present day developments.

AVN/AVNO 162 Private Pilot Skill Ground School
Lec. 3./Credit 3.
Preparation for the successful completion of the Federal Aviation Administration's Private Pilot written and practical examinations. Includes flight maneuvers, practical test standards, flight environment procedures, general aviation aircraft systems, practical navigation and weather, air traffic control communications, and Federal Aviation Regulations. Students are required to pass the Federal Aviation Administration Private Pilot knowledge test.

AVN/AVNO 170 ATC Foundations Lec 3./Credit 3.
This course is a progressive foundational introduction to air traffic control. It focuses on the interpretation of the FAA orders and regulations that govern the air traffic control system, roles and responsibilities of control positions, concepts of spacing, sequencing, and separation, visual and radar traffic patterns, communication, terminology, and principles of ATC procedures.

AVN/AVNO 181 Introduction to Airport Systems
Lec. 3./Credit 3.
A foundational study of airport operations and systems and includes analysis of the role of the airport manager in planning, finance and administration, public relations, social, political, and environmental considerations, operational requirements and facility maintenance.

AVN/AVNO 201 Flight Safety Lec. 3./Credit 3.
Factors and procedures relating to aviation safety, techniques for accident prevention, procedures used in accident investigations, the human factors (physiological and psychological), the effect of weather.

AVN/AVNO 253 Aviation Foundations II Lec. 3./Credit 3.
Provides a continuation overview of aviation, and expands students' overview to the many opportunities and challenges of the profession. The course includes a review of modern and current aviation, fundamentals of flight aerodynamics and technology, and an introduction to aircraft systems and operations. Also, safety of flight, human factors, aeronautical chart interpretation, basic navigation, an introduction to air traffic control and airspace, and aviation weather factors are covered.

AVN/AVNO 254 Crew Resource Management
Lec. 3/Credit 3.
Techniques for enhancing teamwork, interpersonal communications and relationships, leadership, and coping strategies in the professional aviation environment. Included are the recognition of human behavior that affects the safety of aviation operations, such as anger, stress, and fatigue, and the strategies to handle those behaviors.

AVN/AVNO 281 Airport Operations I (landslide)
Lec. 3./Credit 3.
This course is a comprehensive study of airport landside operations. Topics covered are airport operating categories, understand the role of terminal and passenger area security, FAA regulations and inspection programs including PART 139, Airport Certification Manual, and TSA. This course includes a focus on airport communication and business operations.

AVN/AVNO 282 Airport Operations II (airside)
Lec. 3./Credit 3.
This course is a comprehensive study of airport airside operations. Topics covered are airfield inspection programs, snow removal, airfield security, environmental factor affecting airports, wildlife control, and pavement maintenance in accordance with appropriate regulations. This course includes practical application of airfield functions.

AVN/AVNO 290 Introduction to Unmanned Aircraft Systems Lec 3./Credit 3.
An introduction to the fundamentals of unmanned aircraft systems (UAS), including their developing role in the modern aviation industry. Topics include an introduction to structural elements, avionics, flight control and guidance systems, navigation, remote sensing, human factors and integration into commercial and military airspace. Emphasis is on future employment in the field with a focus on commercial airspace.

AVN 353/AVNO 353 Aviation Management
Lec. 3./Credit 3.
A holistic view of management requirements and techniques applicable to the aviation industry; problems, current issues and future trends related to aviation operations. Includes management and organizational styles as applied to the industry, changes in the National Airspace System, managerial problems unique to the industry, and proposed acquisition of equipment under the Capital Investment Plan.

AVN/AVNO 354 Aviation Legislation Lec. 3./Credit 3.
This course is survey of legal concepts concerning aviation as related to operation, contracts, insurance and liability, regulating statutes, and case law. Topics include tort law, FAA regulation, and commercial/business law relative to the aviation industry.

AVN/AVNO 356 Air Transportation Lec. 3./Credit 3.
Survey of historical developments of and current issues within the air transportation system covering facilities, impact of regulations, problems encountered in commercial air transportation, future requirements, airline operations, economics, and social implications.

AVN/AVNO 381 Airport Finance Lec. 3/Credit 3.
This is designed to improve students' understanding of the air transportation system, and analyze current financial industry trends and how they impact an airport. Students will examine the importance of implementing strong management control systems and learn how to successfully forecast your business and evaluate the benefits of efficient customer service and how it relates to a successful pricing strategy. Topics include, assessing financial performance and forecast demand, managing shareholder relations, privatization and re-structuring options, the needs of customers, and the industry's financial trends and their impact on strategy and operations.

AVN 382/AVNO 382 Airport Planning Lec. 3/Credit 3.
A managerial level course focused on the principles of airport planning with emphasis on federal, state, and municipal interactions. This course covers essential elements of current airport planning trends, including airport master planning and layout plans, financial sustainability, and environmental planning, such as hazardous wildlife issues, airport noise, and compatible land use. Students will be introduced to the organizational, political, and financial administration of public and private civil use airports.

AVN 451/AVNO 451 Cooperative Work Study Credit 3-12.
This a work study program under the agreement with an organization within the aviation industry. Students must meet eligibility requirements and be recommended by the Department Chair.

AVN 452/AVNO 452 Airline Operations Lec. 3./Credit 3.
A managerial-level course centering on expertise required for airline operations, including flight dispatching, high altitude weather, crew teamwork, high altitude operations, crew and passenger safety, and high density airport operations. The course is designed for students intending to seek flight or ground career opportunities within the airline industry.

AVN 453/AVNO 453 Special Topics in Aviation
Lec. 3./Credit 3.
A treatment of advanced topics of interest in aviation not routinely. covered by existing courses. May be repeated when topics vary. Prerequisite: Permission of the department chair and course.

AVN 454/AVNO 454 Senior Practicum/Capstone
Sem./Prj./Credit 3.
Designed as a capstone course for all aviation courses of study. Emphasis will be placed upon participating in an assessment designed for the student's area of study which may include any or all of the following: comprehensive oral and/or written examination, comprehensive project, FAA or other industry certification, independent research project, or assigned by academic adviser and approved by department chair.

AVN 480/AVNO 480 Airport Design Lec. 3/Credit 3.
A managerial level course focused on the principles of airport design. This course covers essential elements of airport design trends, including geometric design and layout of the airfield and terminal facilities, obstruction analysis, signage and lighting, forecasting, airside and landside interface, and capacity and delay effects. This course also focuses on environmental design issues, such as local wildlife habitats and hazards, noise abatement issues, and land use. Students will study the airport design elements as they relate to safety and security, economic impacts of airport operations, airport performance standards, and current political trends and issues of direct concern to airport operations such as regulations of the Department of Homeland Security, the Transportation Security Administration, and the Federal Aviation Administration.

AVN/AVNO 481 Concepts of Air Transportation Utilizations Lec. 3./Credit 3.
This course is a study of factors involved in the effective utilization of aircraft in the transportation of passengers and cargo, including aircraft design and cost effectiveness, operational and marketing consideration, depreciation and suitability.

BIOO (Biology – Online)

BIOO 101 Nature of Life Lec. 3./Online/Credit 3.
A non-major course in biology wherein fundamental processes and mechanics of living things are discussed within the framework of a unified theory of life. Special emphasis will be given to topical themes that relate biological principles to contemporary issues in science, technology and society.

BIOO 103 General Bio Lec. 3./Lab 2./Online/Credit 4.
Introduction to biological principles as exemplified in a wide range of organisms; basic concepts are discussed with emphasis on methods of inquiry which led to their discovery.

BIO 105 Introduction to Biology I
Lec. 3./ Lab 2./ Credit 4.
A lecture course that will introduce students to the concepts of cellular and molecular biology including general chemistry concepts, chemistry of macromolecules, cell structure and function, cell membrane, cell cycle and mitosis, DNA replication, transcription, translation, recombinant DNA technology, enzymes, respiration, and photosynthesis. The introduction to biology I laboratory, will introduce students to the principles and techniques utilized to study cells and macromolecules. Topics may include pipetting, making solutions, microscopy, cell structure, cell function, molecular biology, polymerase chain reaction, and gel electrophoresis. Prerequisites: None.

BIO 106 Introduction to Biology II
Lec. 3./ Lab 2./ Credit 4.
Introduction to the nature of science and organismal biology: principles of Mendelian and population genetics, organic evolution, the diversity of life, and ecology. The introduction to biology laboratory II, will emphasize inquiry, and include case studies, computer simulation, data collection and analysis, scientific writing and microscopy. Prerequisites: None

BIOO 224-225 Anatomy and Physiology
Lec. 3./Lab 2./Online/Credit 4.
A two-semester course which deals with essentials of human anatomy in relation to functions of the organ systems. Prerequisite: BIOO 103.

BIOO 302 Human Anatomy Lec. 2./Lab 4./Online/Credit 4.
Study of development and structure of organs and organ systems of the human body with some emphasis upon their functional adaptations. Prerequisite: BIOO 220 or consent of department chair.

BIOO 304 General Microbiology
Lec. 3./Lab 3./Online/Credit 4.
General survey of morphology, taxonomy, and physiology of bacteria and related microorganisms. Prerequisites: BIOO 210 and 220; two courses in chemistry.

BIOO 336 Human Physiology
Lec. 2./Lab 3./Online/Credit 3.
Intricate functions of human body, stressing principles of homeostasis and maintenance of normal health and well-being. Prerequisites: BIOO 220, CHE 201-202 or consent of department chair.

BLAO (Business Leadership and Administration – Online)

BLAO 701R Organizational Behavior
Lec. 3./Online/Credit 3.
Human behavior in organizations, and the role of the personnel manager; exploring the behavior of the individual, the small group, and improving, sustaining, and maintaining human resources of the organization in a changing environment; includes recruitment selection, manpower planning, appraisal and evaluation, training and development, wage and salary administration, health and safety, labor relations and counseling.

BLAO 702R Organization Theory and Practice
Lec. 3./Online/Credit 3.
Theories and applications of knowledge of behavior in the organizational setting to include individual, group and organizational processes The course typically covers motivation, group dynamics, decision-making, leadership, and the design and development of organizations.

BLAO 703R Advanced Computer Applications
Lec. 3./Online/Credit 3.
Introduction to using advanced computerized statistical research applications.

BLAO 704R Advanced Topics in Research
Lec. 3./Online/Credit 3.
Course involves the review of current research issues in global enterprises. The research process and structure will be emphasized and linked to relevant topics and will be explored to emphasize challenges in the business environment.

BLAO 705 Strategy and Policy Leadership
Lec. 3./Online/Credit 3.
Policy and strategy formulation at the general manager's level. Significant use of the case method to study management of the overall enterprise. Prerequisite: Summer residency.

BLAO 706R Teaching Methodology
Lec. 1./Online/Credit 1.
This course is designed to provide information on learning methodology, planning of learning experiences, clinical teaching tools and strategies, formulation of objectives, effective feedback and performance evaluation within the context of adult education. This course will also address the issues of the effects of age and culture on learning styles and health interventions. The course includes lectures, discussion, small group learning experiences and a terminal project requiring application of didactic information. Prerequiste: Summer residency.

BLAO 760R Behavioral Research Methods
Lec. 3./Online/Credit 3.
Emphasis is on designing qualitative and quantitative research proposals, interviewing, and collecting, analyzing, interpreting and reporting qualitative data.

BLAO 761R Empirical Research Methods
Lec. 3./Online/Credit 3.
An exploration of quantitative research methods with emphasis on survey analysis and in the parametric and non-parametric statistical techniques that are used to interpret surveys. A variety of quantitative techniques are addressed.

BLAO 707R Pre-Proposal Presentation
Lec. 3./Online/Credit 2.
Course is dedicated to the development of the proposed dissertation topic. Selection of the dissertation committee and an understanding of the dissertation process. A maximum of 8 credit hours can be earned in this course. Prerequisite: BLAO 760R, 761R.

BLAO 720 Financial Accounting and Reporting Research
Lec. 3./Online/Credit 3.
This course is a comprehensive review of accounting and reporting topics. Students will be exposed to research tools used by accounting professionals including, but not limited to, the new codified FASB pronouncements and IFRS statements.

BLAO 721 Contemporary Issues in Accounting Seminar
Sem. 3. /Online/Credit 3.
This course examines current issues confronting accountants, businesses and their stakeholders. Issues such as new FASB Statement implementation, unique business entities and creative business mechanisms will be examined.

BLAO 722 Accounting Theory Lec. 3./Online/Credit 3.
This course focuses on the theoretical structures of accounting for assets, income definition, recognition and measurement of income, influence of professional standards, and the future of the profession. Prerequisite: BLAO 720.

BLAO 723 Tax Planning and Research
Lec. 3./Online/Credit 3.
This course is an in-depth study of the tax-planning process and research tools that are available to both the professional business manager and tax practitioner.

BLAO 724 Special Topics in Taxation
Lec. 3./Online/Credit 3.
This course focuses on advanced problems determined by current developments and issues in taxation, as well as, special topics relative to taxation. This course provides students with the opportunity to integrate and apply their tax knowledge through problem solving. Prerequisite: BLAO 723.

BLAO 725 Seminar in Accounting Research
Sem. 3. /Online/Credit 3.
Research on auditing, financial and managerial accounting, and taxation using theoretical perspectives and research methods from the social sciences and business disciplines. Prerequisite: BLAO 722, 723.

BLAO 730 Financial Economics Lec. 3./Online/Credit 3.
The objective of this course is to undertake a rigorous study of the theoretical foundations of modern financial economics. The course will cover the central themes of modern finance including individual investment decisions under uncertainty, stochastic dominance, mean variance theory, capital market equilibrium and asset valuation, arbitrage pricing theory, option pricing, incomplete markets, and the potential application of these themes.

BLAO 731 Corporate and Financial Institutions
Lec. 3./Online/Credit 3.
This course provides student with an overview of the contributions in the modern theory of corporate finance and financial institutions. Advanced theory and empirical investigations; financial decisions of the firm, dividends, capital structure, mergers and takeovers. The topics covered may include capital structure, distribution policy, financial intermediation, initial and seasoned public offerings, market for corporate control, product market corporate finance interactions, corporate reorganization and bankruptcy, moral hazard, and some selected topics.

BLAO 732 Behavior Finance Lec. 3./Online/Credit 3.
This course involves the use of psychology to guide alternative theories of financial markets. There is an examination of the preferences and trading decisions of individual investors. It includes an analysis of corporate decision making. Topics covered include capital structure, investment, dividend and merger decisions.

BLAO 733 Theory of Finance Lec. 3./Online/Credit 3.
This course develops an understanding of current financial theory and its implications for financial problem solving. Develops an understanding of the analytical framework for making decisions in the areas of financial planning and control, sources of financing and their relation to the firm. Prerequisite: BLAO 731.

BLAO 734 Concepts of Investment Decisions
Lec. 3./Online/Credit 3.
This course will provide students with the techniques for making investment decisions and valuing securities. The course will develop the concepts of asset pricing such as valuation by arbitrage, arbitrage pricing theory, portfolio selection, means variance analysis, the Capital Asset Pricing Model, and inter-temporal capital asset pricing. Prerequisite: BLAO 730.

BLAO 735 Advanced Topics in Finance
Lec. 3./Online/Credit 3.
Application of financial models and concepts to case studies involving financial aspects of the firm. Case analyses are designed to make use of integrative and critical thinking skills. Knowledge of financial management concepts from lower level courses is assumed. Prerequisite: BLAO 733, 734.

BLAO 740R Managerial Economics Lec. 3./Online/Credit 3.
Managerial Economics is a model building and problem-solving course. Economic analysis is used in decision-making context. The course bridges the gap between purely abstract microeconomic theory and managerial practice. Various quantitative methods are integrated with basic microeconomic concepts that are relevant to decision-making within both the private and public sectors. The importance of marginal analysis is stressed throughout.

BLAO 741 Issues in Operations Management
Lec. 3./Online/Credit 3.
This course covers manufacturing and service industries and deals with a multitude of activities needed to produce or process goods and services in the private and public sectors. The course emphasizes the production and operations activities of businesses and public agencies. To include block-chain techniques.

BLAO 742 Seminar in Strategic Policy Management
Sem. 3. /Online/Credit 3.
This course offers special topics dealing with important issues in strategic management. The course emphasizes global and technological perspectives of strategic management issues.

BLAO 743 International Management
Lec. 3./Online/Credit 3.
This course offers an in-depth study of problems of operating across multiple political and cultural boundaries. Topics include theory and practice of international business, global competition, organizing for global operations, market entry, innovations and comparative management. Prerequisite: BLAO 742.

BLAO 744 Organizational Change Theory
Lec. 3./Online/Credit 3.
This course provides the conceptual frameworks and tools to lead and orchestrate organizational change. Several leading theories and models used in management of organizational change are presented. The course includes detailed analyses of organizations as systems, organizational leadership and change. Students will complete a self-assessment on his/her change leadership capabilities. Prerequisite: BLAO 701, 702, 705.

BLAO 745 Advanced Decision Support Systems
Lec. 3./Online/Credit 3.
This course offers an analysis of techniques involved in the development of computer-based systems designed to help managers in decision making and problem-solving processes. Topics include assessment of technology available, discussion of the design and implementation of such systems. Prerequisite: BLAO 744.

BLAO 750 Marketing Management Lec. 3./Online/Credit 3.
An analysis of all aspects of the marketing functions and the firm, including such basic managerial tasks as analysis of consumer demand, selection of market targets, deciding on strategies, and combining the various marketing tools in the marketing mix, i.e., product offerings, pricing, promotion, and distribution.

BLAO 751 Emerging Issues in Marketing
Lec. 3./Online/Credit 3.
This course exposes students to the role of marketing in a modern organization. Students will examine the intellectual underpinnings of marketing as a discipline by examining the development of marketing theories from both a historical as well as philosophical basis.

BLAO 752 Product Planning Seminar
Sem. 3./Online/Credit 3.
This seminar examines useful quantitative models and methods relevant to product planning and pricing, and promotion. Topics include analysis and measurement of multi-attribute preference structures, information search, product positioning, brand and customer equity, new product introduction, market structuring, and new product diffusion. Prerequisite: BLAO 750, 751.

BLAO 753 Behavioral Research in Marketing
Lec. 3./Online/Credit 3.
This seminar emphasizes coverage of the major research work carried out in consumer behavior. It will expose students to the cutting edge in consumer behavior, psychology and neuroscience and give students a good grasp of what it takes to be a successful academic in the field of consumer behavior. Prerequisite: BLAO 752.

BLAO 754 Quantitative Research in Marketing: Strategic Models and Methods Lec. 3./Online/Credit 3.
This seminar will review major contributions and recent developments in marketing with a particular emphasis on the strategic interactions between firms. It examines how firms craft their product, pricing, advertising, sales force, and channel strategies to create and sustain competitive advantage. A main purpose of the course is to generate new ideas, new research topics, and new applications for existing concepts and theories.

BLAO 755 Theories of Attitude and Persuasion
Lec. 3./Online/Credit 3.
This course will provide an overview of recent research on attitudes and persuasion. Content will include broad coverage of the issues of major importance to attitude theory, but will focus on more recent issues and controversies that have captured the interest of researchers in the field. Students who take this course will become familiar with research methods and major issues in attitudes research and will have a better understanding of how individuals form, maintain, and change their evaluations. Prerequisite: BLAO 753, 754.

BLAO 800 Dissertation I Online/Credit 4.
The course is dedicated to passing the comprehensive examination, submitting and defending the dissertation proposal, and the creation of a journal article that can be published in the School of Business's Journal of Business and Finance Research. By the end of this course, the full dissertation committee is established and the dissertation proposal is accepted by the committee. Prerequisite: Completion of all coursework and BLAO 707R

BLAO 805 Dissertation II Online/Credit 4.
This course is dedicated to the completion of at least the first three chapters. By the end of this course, the first three chapters are approved by the dissertation committee and the work continues to chapters four and five. Prerequisite: BLAO 800

BLAO 810 Dissertation III Online/Credit 4.
This course is dedicated to completing the dissertation. By the end of this course, the full dissertation is completed and ready to defend. Students can register for a maximum of 24 credit hours. Prerequisite: BLAO 805.

BLAO 815 Dissertation Defense Online/Credit 0.
This course is dedicated to hearing the final successful defense. Prerequisite: BLAO 810.

CHEO (Chemistry – Online)

CHEO 101-102 General Chemistry
Lec. 3./ Lab 3./Online/Credit 4.
A one-year course in general chemistry, organic chemistry, and biochemistry to meet requirements for persons not majoring in chemistry.

CHEO 150 General Chemistry Problem Solving
Lec. 3./Credit 3.
Emphasizes the development and/or improvement of the student's analytical and quantitative skills.

CHEO 201-202 General Chemistry and Qualitative Analysis
Lec. 3./Lab 3./Credit 4.
Detailed consideration of compounds, chemical equilibrium, and elementary qualitative analysis. CHEM 201 is the prerequisite for all subsequent chemistry courses. Corequisite: MATO 117 and 118.

CHIO (Chinese – Online)

CHIO 101 Elementary Chinese I Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

CHIO 102 Elementary Chinese II Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: CHI/CHIO 101 or the equivalent.

CHIO 201 Intermediate Chinese I Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: CHI/CHIO 102 or the equivalent.

CHIO 202 Intermediate Chinese II Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: CHI/CHIO 201 or the equivalent.

CHIO 301-302 Advanced Chinese Conversation I-II
Lec. 3./Online/Credit 3.
These courses will review basic Chinese grammar, vocabulary and written characters to improve speaking, writing and reading while gaining knowledge of the culture and the society. Emphasis is on communicative competence.

CHIO 303-304 Advanced Chinese Reading I-II
Lec. 3./Online/Credit 3.
This course exposes students to authentic materials relating to current issues, political, cultural and economic as well. Introduces students to elements of discussion.

CHIO 320 Ancient Chinese Civilization and Culture
Lec. 3./Online/Credit 3.
Introduces students to ancient Chinese civilization and culture.

CHIO 321 Topics in Chinese Literature and Culture
Lec. 3./Online/Credit 3.
This course exposes students to important issues through the study of works of important writers of the twentieth century.

CHIO 440 Experiential Learning Lec. 3./Online/Credit 3.
Can include study abroad, research abroad, domestic or international internships.

CJMO (Criminal Justice – Online)

CJMO 205 Introduction to the Criminal Justice System
Lec. 3./Credit 3.
This course examines the history, organization, and functions of various components of the criminal justice system. Focuses on the interrelationships among law enforcement agencies, prosecution, courts, correctional processes and institutions, probation, parole, juvenile justice, and other officials and their agencies.

CJMO 300 Juvenile Delinquency Lec. 3./Credit 3.
An analysis of youthful offenders. Focus on the theory and research in the explanation of law violation among juveniles. Traces historical development of public and private institutions created to control youthful offenders.

CJMO 305 Fundamentals of Criminal Law Lec. 3./Credit 3.
This course is a study of the nature of criminal law. Topics include philosophical and historical development, major definitions and concepts, classification of crime, elements of crimes and penalties, and individual criminal responsibilities.

CJMO 400 Police Systems and Practices Lec. 3./Credit 3.
Examines the history and philosophy of law enforcement, the role of law enforcement in today's society, future trends in law enforcement and the role of law enforcement as it relates to various local, state and federal agencies. In addition, the course explores the significant political, social and legal events that have shaped law enforcement.

CJMO 401 Ethics in Criminal Justice Lec. 3./Credit 3.
This course has a concentration on the major functions and structure as well as processes that underline ethical issues and types associated within the American Criminal Justice System. This course will explore the structure and nature of the various types of ethical debates within the American judicial system. There will be an assessment of the ethics in criminal justice, as it explores the issues of morality, virtue, honesty, and making ethical decisions in the United States criminal justice system. Assessments of various issues will be examined as they relate to decision making and ethics.

CJMO 402 Community Resources in Corrections
Lec. 3./Credit 3.
Focus is on the probation and parole systems, community police practices, and the various programs that deal with offenders. It examines the issues from conviction to release, pre-sentence investigations, sentencing and the issues facing the correctional administrator.

CJMO 403 Criminal Investigations Lec. 3./Credit 3.
This course is designed to teach those skills and knowledge necessary to conduct thorough preliminary investigations of crimes. Techniques used to investigate common categories of crimes will be discussed. A major emphasis in this course will be the preparation and execution of investigative plans as they relate to a team approach.

COMO (Communication – Online)

COMO 103 Oral Communication Lec. 3./Online/Credit 3.
A one-semester course in Speech Communication involving a participative learning experience. Emphasis will be placed on intrapersonal, interpersonal and public communication. Class projects, situational exercises, public speaking, group discussion and dyadic and nonverbal communication are used as reinforcement material. Passing grade is "C.".

COMO 250 Interpersonal Communication
Lec. 3./Online/Credit 3.
A survey of the theories and principles, which explain how people relate to and interact with each other on a one-to-one basis. Methods for developing, improving and ending relationships will be explored.

COUO (Counseling – Online)

COUO 602 Abnormal Behavior and Psychopathology
Lec. 3/Credit 3
An introductory study of principles of mental health, including prevention, intervention, consultation, education, and advocacy. Discussion of causes and processes in the development and treatment of mental disorders. Specific principles and models of biopsychosocial assessments, case conceptualization, and theories of human development and concepts of psychopathology leading to diagnosis and appropriate treatment plans will be discussed. Basic classifications, indications, and contraindications of psychopharmacological medications will be discussed.

COUO 603 Counseling with Diverse Populations
Lec. 3/Credit 3
Addresses the effects of racism, sexism, power, privilege, culture, age, religion, disability, and ethnicity on personality development and behavior with implications for seeking clinical mental health counseling. Discusses multicultural and pluralistic trends to include attitudes, beliefs, understandings, and acculturative experiences to include spirituality. Counselors' roles in social justice, advocacy and conflict resolution, cultural self-awareness, the nature of biases, prejudices, processes of intentional and unintentional oppression and discrimination, and other culturally supported behaviors that are detrimental to the growth of the human spirit, mind, or body will be discussed.

COUO 604 Life Span Development Lec. 3/Credit 3
Theories of individual and family development and transitions across the life span will be discussed. Topics will include human behavior, neurobiological behavior, personality, and strategies for facilitating optimum development. Theories and models of individual, cultural, couple, family, and community resilience will be discussed.

COUO 605 Human Sexuality Counseling Lec. 3./Credit 3.
Provides an understanding of basic treatment techniques for sexual dysfunction, sexual disorders, and sexual diseases. Human sexuality issues and their impact on family and couple functioning, and strategies for their resolution will be discussed. Attention given to legal and ethical issues in the areas of sexual function and reproduction rights.

COUO 606 Treating the Substance Abuser Lec 3/Credit 3
Theories and etiology of addictions and addictive behaviors will be discussed. An overview of issues relating to treating addictions is provided. Common drugs of abuse, symptoms of abuse and dependence, assessment tools, and treatment methods are examined. Specific ethical and legal standards will be discussed.

COUO 610 Ethics and Legal Aspects of Counseling
Lec. 3/Credit 3
Provides an overview of the history and philosophy of the counseling profession, including significant and events, professional roles, professional organizations and credentialing, advocacy, and ethical and legal standards. Provides an understanding of counseling and consultation processes to include characteristics and behaviors to influence helping processes, introduction to counseling theories and system perspectives along with legal perspectives. Counseling supervision models, practices and processes will be introduced and discussed. Discusses the integration of technological strategies and applications within counseling and consultation processes. Examines current system of intervention and engages student in analysis from the perspective of its usefulness to counseling. This course will include reflective exercises for self-assessment, experiential experiences with counselors, and a growth model for professional development.

COUO 612 Career Development Lec. 3/Credit 3
An introduction to career development theory and practice, and assessment measures utilized in career counseling is provided. Interrelationships among and between work, family, and other life roles and factors including the role of diversity and gender in career development will be discussed. Transitions throughout life will be discussed. Career development program planning, resources, information systems, and techniques will be discussed. In addition, factors influencing career choice and job satisfaction, occupational trends, changes in the workplace, and appropriate counseling interventions are discussed. Also, a specific focus will be provided for legal and ethical issues facing all counselors.

COUO 613 Diagnosis and Treatment to include Addictions
Lec. 3./Credit 3

Discussion of the history, philosophy, and trends in clinical mental health counseling to include professional organizations, preparation standards and credentials. Development of an understanding of general principles and methods of case conceptualization, assessment, and/or diagnoses of mental and emotional status with a specific emphasis on substance abuse and addictions. Strategies for selecting, administering, and interpreting assessment and evaluation instruments will be discussed. Procedures for conducting intake interviews, mental status examinations, and psychological assessments will be demonstrated. Management of mental health services and programs will be discussed. Clinical supervision, ethical and legal considerations of mental health counseling will be discussed.

COUO 614 Community Mental Health and Welfare Services Lec. 3/Credit 3

Introduction of professionals to community social welfare and other agencies (private and public) functioning in the areas of family service, public and private assistance, mental hygiene, protective and correctional care, pastoral care, and health services. Application of research and program evaluation will be discussed. Course will focus on visiting and experiencing these diverse functions.

COUO 616 Theory and Practice of Counseling and Psychotherapy Lec. 3/Credit 3

A detailed introduction and critical evaluation of contemporary theories of counseling used to address educational, vocational, and personal problems. Behavioral, solution-focused/brief therapy will be focused upon to meet the needs of contemporary society. Aspects of crisis management will form the focus of the brief therapy. Interviewing and counseling skills, system perspective, and consultation will be discussed. This course is designed for counselors, teachers, administrators, clergymen, and others who counsel individuals in a variety of settings. Specific ethical and legal standards will be discussed. The student will perform 10 hours in a community setting observing counseling practices.

COUO 619 Group Process in Counseling Lec. 3/Credit 3

This is an experiential course on the leadership, dynamics, methods, theories and techniques used for group counseling. Planning and implementing groups for a variety of populations and purposes, developing group facilitation skills, and increasing self-awareness are emphasized. Didactic focus is on psycho-educational groups. The student will perform 10 hours in small group settings.

COUO 620 Marriage and Family Counseling
Lec. 3./Credit 3.

A course in which the theories and techniques of marriage and family counseling are studied and the techniques are practiced. Provides an overview of the history of marital, couple, and family counseling/therapy. A systems perspective that provides an understanding of family and other systems theories and major models of family and related interventions will be introduced. Implications of family, social networks, and community systems in the treatment of mental and emotional disorders will be discussed.

COUO 621 Advanced Group and Family Systems Counseling Lec. 3/Credit 3

Development of group leadership skills through group experiences in class and in the field. In depth studies of group counseling theories. Develop a systems perspective that provides an understanding of family and other systems theories and major models of related interventions. Systems theory and consultation will be discussed as it relates to the group setting.

COUO 622 Assessment and Appraisal in Counseling
Lec. 3/Credit 3

Survey of tests of ability, interest, aptitude and personality that are most useful to the counselor will be introduced. A historical perspective concerning the nature and meaning of assessment will be provided. Statistical concepts to include scales of measurement, measures of central tendency, reliability and validity will be introduced. Norm-referenced and criterion-referenced tests will be discussed. Assessment and evaluation will be approached from both the individual and group perspective.

COUO 624 Theories of Learning, Personality, and Temperament Lec. 3/Credit 3

Evaluation of major learning, personality, and temperament developmental theories across the lifespan, cultures, ethnicities, race, socioeconomic status, and gender. Specific focus will be given to environmental factors influence on development and their influences on developmental outcomes such as behavior problems and cognitive development. Strategies for facilitating optimum development will be discussed.

COUO 626 Crisis Intervention and Grief Counseling
Lec. 3./Credit 3.

An overview of issues relating to crisis situations to include initial interventions through grief counseling. The course will discuss assessing and reacting to various crises involving suicide, homicide, intimate partner violence, sexual assault/abuse, bereavement/grief, substance abuse, natural disasters, war, and terrorism. Roles and responsibilities as a member of an interdisciplinary management response team will be discussed. Ethical issues will be discussed.

COUO 630 Analysis of Behavioral Data Lec. 3/Credit 3

Inferential procedures in treatment of research data. The use of existing national data sets will be emphasized. The importance of research and opportunities and difficulties in conducting research in the counseling and health professions will be discussed. The use of research to improve counseling effectiveness and health programs will be discussed. This course will use statistical software packages to exploit data analyses. This course will be taught in conjunction with NUR 670.

COUO 671 Introduction to Research and Program Evaluation Lec. 3/Credit 3

Introductory course that provide an understanding of research methods, statistical analyses, needs assessment, and program evaluation. The course includes discussions regarding the importance of research in the counseling profession, research methods, the use of technology and statistical methods, needs assessment, and the use of research to improve counseling effectiveness. Ethical and legal aspects of research will be discussed.

COUO 699 Independent Study Credit 3-6

COUO 702 Master's Comprehensive Examination Credit 1

The purpose of the comprehensive examination is to demonstrate an understanding of knowledge in relevant, related fields of study, which undergirds the student's dissertation research.
This examination is pass/fail.

COUO 710 Ethics and Legal Aspects of Counseling Lec. 3/Credit 3

Provides an overview of the history and philosophy of the counseling profession, including significant and events, professional roles, professional organizations and credentialing, advocacy, and ethical and legal standards. Provides an understanding of counseling and consultation processes to include characteristics and behaviors to influence helping processes, introduction to counseling theories and system perspectives along with legal perspectives. Counseling supervision models, practices and processes will be introduced and discussed. Discusses the integration of technological strategies and applications within counseling and consultation processes. Examines current system of intervention and engages students in analysis from the perspective of its usefulness to counseling. This course will include reflective exercises for self-assessment, experiential experiences with counselors, and a growth model for professional development.

COUO 722 Advanced Counseling Theory and Techniques Lec. 3/Credit 3

Foundations of mental health counseling will be discussed to include ethical and legal considerations (AMHCA Code of Ethics). Critical review of theories and practice of the techniques and principles of counseling will be conducted. Career development, group work, crisis/disaster response, systems and consultation will be discussed. Evaluation of counseling effectiveness will be discussed.

COUO 725 Grant Writing Lec. 3/Credit 3

This course focuses on the mechanics of grantsmanship, including public and private sources. Students will conduct Internet searches weekly as they determine a myriad of different funding sources. Students will explore the "how-to" of writing research, training and demonstration grants. A completed proposal suitable for submission will be required of all enrollees. Peers and selected faculty members will conduct critiques of the proposals. This course will be taught in conjunction with NURO 725.

COUO 799 Independent Study Credit 3-6

COUO 801 Counseling Leadership and Advocacy Lec. 3/Credit 3

Theories, skills, and models of counseling leadership and advocacy will be discussed. Multicultural issues as they relate to social change theories, and current topical and political issues in counseling will be discussed.

COUO 802 Doctoral Candidate Qualifying Examination Credit 0.

The purpose of the qualifying examination is to demonstrate an understanding of knowledge in relevant, related fields of study, which undergirds the student's dissertation research. This comprehensive examination must be successfully completed. This is a pass/fail examination.

COUO 805 Human Sexuality Counseling Lec 3/Credit 3.

Provides an understanding of basic treatment techniques for sexual dysfunction, sexual disorders, and sexual diseases. Human sexuality issues and their impact on family and couple functioning, and strategies for their resolution will be discussed. Attention given to legal and ethical issues in the areas of sexual function and reproduction rights.

COUO 810 Identity, Ethics and Legal Aspects of Counseling Lec 3./Credit 3.

Provides an overview of the history and philosophy of the counseling profession, including significant events, professional roles, professional organizations and credentialing, advocacy, and ethical and legal standards. Provides an understanding of counseling and consultation processes to include characteristics and behaviors to influence helping processes, introduction to counseling theories and system perspectives along with legal perspectives. Multicultural and spiritual issues will be introduced and discussed. Discusses the integration of technological strategies and applications within counseling and consultation processes. Examines current system of intervention and engages student in analysis from the perspective of its usefulness to counseling. This course will include reflective exercises for self-assessment, experiential experiences with counselors, and a growth model for professional development

COUO 811 Literature Review Writing Lec 3/Credit 3

This course is designed to help students write a systematic literature review that is appropriate for a dissertation. Substantial time will be devoted to researching peer-reviewed articles on the topic chosen by the PhD student. Emphasis will be placed on developing skills to write a clear problem statement. Substantial reading and critiques of journal articles will be required.

COUO 814 Quantitative Methods I Lec. 3/Credit 3

This course focuses on the design of descriptive and correlational research. Emphasis is placed on the collection and statistical analyses of quantitative data and use of statistical software. Note: This course will be held simultaneously with NUR 714.

COUO 815 Quantitative Methods II Lec. 3/Credit 3
This course focuses on the design of experimental research. Emphasis is placed on the collection and statistical analyses of quantitative data and use of statistical software. Note: This course will be held simultaneously with NUR 715.

COUO 816 Qualitative Methods of Research Lec. 3/Credit 3
This course focuses on qualitative methods of research. Emphasis is placed on the collection and analysis of qualitative data by using case study, survey, phenomenological, grounded theory; and ethnographic, and historical methods of inquiry. This course will be held simultaneously with NURO 716.

COUO 821 Advanced Group and Family Systems Theory Lec. 3/Credit 3
Development of group leadership skills through group experiences in class and in the field. In depth studies of group counseling theories. Develop a systems perspective that provides an understanding of family and other systems theories and major models of related interventions. Systems theory and consultation will be discussed as it relates to the group setting.

COUO 823 Theories and Practice of Counseling Education Lec. 3/Credit 3
Topics will include theories and practice of instructional theory and methods relevant to counselor education. Pedagogy relevant to current social and cultural issues will be discussed.

COUO 824 Theories and Practice of Counseling Supervision Lec. 3/Credit 3
Topics will include theories and practice of counselor supervision to include ethical and legal considerations. Supervision of the Masters level practicum will form an integral part of the course.

COUO 825 Grant Writing Lec. 3/Credit 3
This course focuses on the mechanics of grantsmanship, including public and private sources. Students will conduct Internet searches weekly as they determine a myriad of different funding sources. Students will explore the "how-to" of writing research, training and demonstration grants. A completed proposal suitable for submission will be required of all enrollees. Peers and selected faculty members will conduct critiques of the proposals. This course will be taught in conjunction with NURO 725.

COUO 826 Research and Program Evaluation Lec. 3/Credit 3
The focus of the course will be needs assessment. Single-case designs, action research, quantitative and qualitative research methods will be discussed. Introduction to program evaluation and outcome-based research will be provided. The course will be experiential in developing a program evaluation within the community.

COUO 828 Counseling Practicum Tutorial 3./Credit 3.
The advanced supervised practicum provides for the development of counseling skills under supervision and translate these skills in a teaching environment. This practicum of 100 clock hours will allow students to be the lead instructor for a graduate level course in counseling under the direct supervision of a full-time faculty member. Classes will be limited to approximately five students. Specific ethical and legal standards will be discussed.

COUO 829 Counseling Education and Supervision Internship I (Teaching) Tutorial 3./Credit 3.
The doctoral internships provide students with supervised experiences activities of regularly employed professionally in the field of counselor education. Under the guidance of faculty, the primary focus of the Teaching Internship is to help doctoral students learn the knowledge, skills, and dispositions required for ethical and competent practice in their role of educating counselor trainees in the field of counselor education. This internship will consist of providing individual and group supervision to Master of Arts Counseling students or teaching graduate level counseling courses. These activities will also include participating in scholarly activities of research, presenting or co-presenting at conferences, and involvement in professional organizations. Students are required to complete 300 hours.

COUO 830 Counseling Education and Supervision Internship II (Supervision) Tutorial 3./Credit 3.
The doctoral internships provide students with supervised experiences activities of regularly employed professionally in the field of counselor education. Under the guidance of faculty, the primary focus of the Supervision Internship is to help doctoral students learn the knowledge, skills, and dispositions required for ethical and competent practice in their role of supervising counselor trainees in the field of counselor education. This internship will consist of providing individual and group supervision to Master of Arts Counseling students or Residents in Counseling. Students are required to complete 300 hours.

COUO 831 Dissertation Seminar Credit 3.
This course is designed to provide doctoral students with the skills necessary to develop a dissertation prospectus. Students learn how to: 1) conduct a literature review; 2) critique relevant theories; 3) write cogent statements of purpose and research question(s); 4) develop a research design and select appropriate methodology and 5) carry out data collection and analysis. This course is also designed to assist students in the development of their research prospectus in preparation for presentation to the Ph.D. Supervisory Committee. Students are to complete drafts of chapters 1-3 of their dissertation.

COUO 832 Dissertation I Credit 4.
Designed for students who are preparing a doctoral dissertation. Students enroll in COUO 832 in the first semester after completion of course work (to include the completion of Dissertation Seminar and the prospectus). This course focuses on the development of the dissertation research proposal. The focus includes a focus on the research problem, purpose, background, significance, theoretical framework and literature review. Emphasis is placed on the elements of integrative reviews of theoretical literature and outlining the conceptual-theoretical-empirical structure for the research. Students will complete a refined first two chapters at the end of the course for submission to the dissertation chair/committee. Students may enroll in this course for a maximum of three times. The Department of Counseling must approve extensions of exceptional circumstances.

COUO 833 Dissertation II Credit 4.
Designed for students who are preparing a doctoral dissertation. Students enroll in COUO 833 after successful completion of COUO 832. This course focuses on the continued development of the research methodology (Chapter III), dissertation chair/committee approval, and progression to IRB submission of the dissertation research proposal. Emphasis will be placed on refinement of the conceptual-theoretical-empirical structure, current literature review, and the methodology for the proposed research. Students are expected to progress through the IRB process after proposal approval by the dissertation committee. Data collection begins upon approval by IRB. Students may enroll in this course for a maximum of three times. Extensions of exceptional circumstances must be approved by the Department of Counseling.

COUO 834 Dissertation III Credit 4.
Designed for students who are preparing a doctoral dissertation. Students enroll in COUO 834 after successful completion of COUO 833. This course focuses on the continued preparation of the dissertation manuscript. Students will complete Chapter IV (Results), Chapter V (Discussion), and assemble the complete dissertation manuscript in preparation for review by the dissertation chair/committee and Department Chair. Students will address comments/corrections rendered during the reviews by the dissertation chair/committee and Department Chair. Students may enroll in this course for a maximum of three times. Extensions for exceptional circumstances must be approved by the Department of Counseling.

COUO 836 Dissertation Defense Credit 0.
The course is the culmination of the Ph.D. program. Students will present and defend their dissertation and finalize their dissertation manuscript for publication. The dissertation committee and school dean must approve the dissertation before a Request to Defend form can be submitted to the Graduate College. Students will present and defend the dissertation to, at a minimum, the dissertation committee and a representative of the Graduate College. After addressing comments/corrections resulting from the dissertation defense, the student will finalize the document for submission to the Graduate College.

COUO 899 Independent Study Credit 3-6.

CRJO (Criminal Justice and Criminology– Online)

CRJO 332 Corrections Lec. 3./Online/Credit 3.
The course demonstrates an understanding of the operations of the correctional institution; discusses various alternatives to incarceration; the treatment and rehabilitation of offenders; explores current and future trends in institutional corrections; and addresses the need for correctional systems in today's society. The focus of this course is to introduce the student to correctional systems. Emphasis is placed on the historical development of correctional systems and practices, treatment of offenders, goals of corrections, and special needs of offenders in today's systems.

CRJO 407 Forensics and Crime Scene Investigation Lec. 3./Online/Credit 3.
This elective course examines the basic concepts of forensic science through advanced scientific crime solving techniques such as establishing identity through human remains. Topics include forensic anthropology; odontology; radiology; serology; DNA tracing; medical examiner procedures; wound ballistics; and trauma examinations. Emphasis is placed on physical evidence, information sources, interviews and interrogations, eyewitness identifications, crime scene reconstruction, homicide investigations, burglaries, robberies, sex crime investigations, specialized investigations, and managing criminal investigations. Prerequisite: CHEO 101-102.

CRJO 409 The Criminalistics of Cybercrime Lec. 3./Online/Credit 3.
An exploration of the links between computers, deviance, and social control. This will include analysis of the technological, social, and geopolitical context from which cybercrime and information warfare have emerged and the nature, extent and causes of digital deviance, such as hacking and cyber-terrorism. Societal and political reactions to cybercrime are considered, as are social policy questions of privacy and freedom on the Internet.

CRJO 410 Issues in Law Enforcement Lec. 3./Online/Credit 3.
This elective course is a study of the organization, management, and administration of law enforcement agencies. Topics include police administration in the political arena, organizational theory, police organizational structure, leadership, organizational communication, police subsystem tasks, decision-making, performance evaluation, and organizational improvement. (i.e. racial profiling, police discretion, police brutality, police corruption).

CRJO 411 Homeland Security Lec. 3./Online/Credit 3.
This course provides a survey of the management issues posed by emergencies of all kinds, such as bomb threats, earthquakes, explosions, labor disputes, and oil spills. Issues such as risk analysis, standards, counter-measures, and emergency public relations will be studied, along with case histories. Methods and techniques used to prevent and reduce losses due to theft and casualty. Consideration of the security survey; communication and surveillance systems; control of personnel and visitors; the use, supervision, and training of security forces; handling civil disturbances in public buildings; and other emergencies is given.

CRJO 416 Terrorism and National Security Management
Lec. 3./Online/Credit 3.

This course is designed to address issues in national security management. Topics introduced will include worldwide terrorism, terrorist violence, governmental reaction to specific demands and threats with the objective of weakening established governments. The course will also identify various terrorist groups worldwide that are intent on destroying life and property by the use of explosives, weapons and other violent means.

CRJO 417 Law Enforcement in Security
Lec. 3./Online/Credit 3.

This course provides a survey of objectives and tactical issues and methods employed by those persons empowered to establish and enforce security programs. Emphasis is place on the enforcement of required security programs involving transportation, including airports and air carriers. Specific subjects covered include the role of the law enforcement officer in security, and in emergency response, counter-terrorism, and witness interviewing.

CRJO 418 Emergency Preparation and Security Management Lec. 3./Online/Credit 3.

This course studies the various elements involved with planning for and responding to workplace, transportation, and natural disasters and emergencies. This course will adopt an all-hazards approach to the general and technical aspects of disaster planning and response including the incident management system, alarm, warning, and communications systems, evacuation, medical response, search and rescue, media and information management, and business recovery.

CRJO 499 Senior Practicum Lec. 3./Online/Credit 3.

Capstone course designed to provide students with an opportunity to demonstrate their knowledge and apply theory to practice through a practical experience in a professional environment.

CSOO (Continuing Studies – Online)

CSOO 126 Understanding the HU Culture/Adult Academic Successful Skills for Adult Learning
Lec. 1./Online/Credit 1.

Upon completion of this course, the student will be able to identify campus resources and learning strategies critical/essential to student success, to gain awareness of the skills and commitment needed for returning to school as adult learners and to develop skills needed to enhance academic, professional and personal success and to become and remain a student.

CSOO 127 Orientation to Effective Online Learning
Lec. 1./Online/Credit 1.

Explores the role of software, software paradigms, and software systems. Emphasis on specification and analysis of problems, designing solutions to problems, and the testing of problem solutions. Introduces fundamental concepts of computer organization and operations. Examines hardware (processor, keyboard, disk drives, and printers), operating systems and editors.

CSOO 170 Diversity & Global Awareness
Lec. 3./Online/Credit 3.

This course will explore issues of cultural diversity in the United States through the study of cultural, social or scientific contributions of women and ethnic minority groups, examinations of their experiences in the United States, and exploration of successful and unsuccessful interactions among and between different cultural groups. The course will also explore the values, elements, and social processes of cultures other than those in the United States. Students will be able to recognize and articulate the relationship of the American cultural system to global human goals and welfare.

CSOO 201 Introduction to Computers
Lec. 3./Online/Credit 3.

This course helps the student understand how computers can be used to enhance his or her personal, academic or professional life. A basic understanding of computer configuration and operation is gained in this course. A hands-on approach is used to introduce the student to operating system software and various application software packages for word processing, spreadsheet, presentation, and database management. Students also learn how to conduct searches on the Internet and to communicate via electronic mail.

CSOO 213 Computer Applications
Lec. 3./Online/Credit 3.

The use of computers to become efficient in your personal, academic and professional life. Software packages for word processing, spreadsheet applications and database management will be presented.

CSOO 340 Employment Law for Business
Lec. 3./Online/Credit 3.

his course addresses law and employment decisions with a management perspective. It has three objectives: 1) to teach the student how to approach and manage legal employment decisions. 2) To instruct the student regarding the specific legal framework in which management decisions are made. 3) To give the student the ability to effectively argue his or her management decision case with this legal framework.

CSOO 214 Internet Navigation and Application
Lec. 3./Online/Credit 3.

This course will address the concepts associated with internet access and utilization. Students will acquire basic knowledge of networking and internet utility tools. The course includes online internet activities and will develop a working knowledge of web page design and construction. Prerequisite: CSOO 201 or equivalent computer introductory level course.

CSOO 231 Spreadsheet Management
Lec. 3./Online/Credit 3.

This course teaches creating, editing, formatting, and printing a spreadsheet, creating basic and advanced formulas, preparing graphs, filtering and sorting data, working with database queries, and creating and executing macros.

CSOO 233 PowerPoint Presentations
Lec. 3./Online/Credit 3.
This course teaches the creation of computerized presentations with slides, outlines, and speaker notes. Course includes use of text, clip art, and sound, graphs to enhance presentations and output forms of presentations such as slide show, notes, outline, and transparencies.

CSOO 235 Database Management-Access
Lec. 3./Online/Credit 3.
This course teaches planning, defining, and using a database; creating and running queries, creating and updating forms; generating reports, and terminology associated with of database management.

CSOO 237 Advanced Word Processing
Lec. 3./Online/Credit 3.
This course teaches advanced word processing features such as creating mail merge files, macros, and graphics. The course also develops competence in the production of complex documents with table of contents, indexes, footnotes, tables, and cross references.

CSOO 240 Introduction to Human Resource Management
Lec. 3./Online/Credit 3.
Introduces employment, selection, and placement of personnel, usage levels and methods, job descriptions, training methods and programs, and employee evaluation systems. Includes procedures for management of human resources and uses case studies and problems to demonstrate implementation of these techniques. This course addresses law and employment decisions with a management perspective. It has three objectives: 1) to teach the student how to approach and manage legal employment decisions. 2) To instruct the student regarding the specific legal framework in which management decisions are made. 3) To give the student the ability to effectively argue his or her management decision case with this legal framework. challenges.

CSOO 340 Employment Law for Business
Lec. 3./Online/Credit 3.
This course addresses law and employment decisions with a management perspective. It has three objectives: 1) to teach the student how to approach and manage legal employment decisions. 2) To instruct the student regarding the specific legal framework in which management decisions are made. 3) To give the student the ability to effectively argue his or her management decision case with this legal framework.

CSOO 499 Senior Capstone **Lec. 3./Online/Credit 3.**
This course will provide a culminating experience for students to explore and analyze current critical issues. Issues or problems will be studied in the context of religious, ethical, sociological, psychological, and business implications. Prerequisite: Completion of major courses and Senior standing.

CYSO (Cyber Security – Online) Graduate Only

CYSO 523 Ethics, Law and Policy in Cyberspace
Lec. 3./Credit 3.
Study of ethical issues, legal resources and recourses, and policy implications inherent in our evolving online society. Provides an overview of the ethical challenges faced by individuals and organizations in the information age. Introduces the complex and dynamic state of the law as it applies to behavior in cyberspace. Prerequisite: Graduate standing.

CYSO 582 Introduction to Cyber Security Lec. 3./Credit 3.
An introduction to the various technical and administrative aspects of Information Security and Assurance. This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. The purpose of the course is to provide the student with an overview of the field of Information Security and Assurance. Students will be exposed to the spectrum of Security activities, methods, methodologies, and procedures. Coverage will include inspection and protection of information assets, detection of and reaction to threats to information assets, and examination of pre- and post-incident procedures, technical and managerial responses and an overview of the Information Security Planning and Staffing functions. Prerequisite: Graduate standing.

CYSO 583 Secure Software Engineering Lec. 3./Credit 3.
An overview of methodologies, tools and techniques for producing secure software systems. Students will cooperatively develop a secure software product. The course will also provide an introduction to professional resources and ethical issues for software developers. Prerequisites: CYSO 582.

CYSO 610 Cryptography Lec. 3./Credit 3.
Cryptographic techniques to achieve confidentiality, integrity, authentication and non-repudiation are examined. The underlying mathematical concepts are introduced. Topics to be covered include symmetric and public key encryption, hashing, digital signatures, cryptographic protocols and other recent developments in the field. Prerequisite: CSC 510 or CSCO 510.

CYSO 670 Computer Forensics and Incident Handling
Lec. 3./Credit 3.
Identifying, acquiring, preserving, and analyzing electronic evidence from single machines, networks, and Internet. It will explore both technical and legal issues of computer forensics investigations. Topics include forensics law and regulation issues, incidence response, open and commercial tools, evidence recovery theory and practice of computer file systems, memory, registry, network logs and communications. Special focus will be given to windows systems and networks. Prerequisite: CYSO 582.

CYSO 675 Computer Viruses and Malicious Software
Lec. 3./Credit 3.
This course involves the study of malicious software (malware) including computer viruses, worms, and Trojan horses. Topics include the various mechanisms used in the construction of malicious software; existing commercial anti-virus software; preventative and reactive means for dealing with malicious software on workstations, servers, and in networks; training and education of users; and reliable sources to monitor for alerts as well as the prevention of hoaxes. Prerequisite: CYSO 582.

CYSO 683 Advanced Computer and Network Security
Lec. 3./Credit 3.
Introduction to security problems in computing and networking. Information Security Models. Encryption and decryption techniques. Cryptographic protocols and practices. Operations Security. Program Security. Security in networks and distributed systems. Database Security. Electronic commerce security. Legal and ethical issues in computer and network security. Prerequisite: CYSO 582.

CYSO 684 Systems Security Administration, Management and Certification Lec. 3./Credit 3.
Outlines the principles of systems security administration, management, and certification. Provisioning, procurement and installation of network, hardware and software systems for mission critical enterprises. System configuration and maintenance. Incident handling and response. Facilities Management. Contingency Plans. Law, standards of contract. Operations Management. System certification, testing and validation. Prerequisite: CYSO 582.

CYSO 685 Risk Management Lec. 3./Credit 3.
Outlines the aspects of computer security and risk management. Accreditation, implementation, extension, and operation principles for secure information systems. Security policy and plan development. Contingency, continuity and disaster recovery planning. Incident handling and response. Prerequisite: CYSO 582.

CYSO 686 Systems Security for Senior Management
Lec. 3./Credit 3.
Develops the knowledge necessary for senior security management to analyze and judge the reported systems for validity and reliability to ensure such systems will operate at a proposed trust level. Topical review and discussion on current trends in cybersecurity standard and CISSP certification. Includes grant final approval to operate, grant review accreditation, verify compliance, ensure establishment of security controls, ensure program managers define security in acquisitions, assign responsibilities, define criticality and sensitivity, allocate resources, multiple and joint accreditation, assess network security. Prerequisite: CYSO 582.

CYSO 690 Network Security and Intrusion Detection
Lec. 3./Credit 3.
Provides a comprehensive overview of network security and intrusion detection. Topics include security overview, authentication, attacks and malicious code, communication security, Web security, network security topologies, intrusion detection, firewalls and VPNs, security baselines, security algorithms, physical security, disaster recovery, forensics overview, and other state-of-the-art developments. Prerequisite: CYSO 582.

CYSO 691 Wireless Networks Lec. 3./Credit 3.
Examines security of wireless networks which have become ubiquitous such as cellular networks, wireless LANs, mobile ad hoc networks, wireless mesh networks, and sensor networks. Unprotected wireless networks are vulnerable to several security attacks including eavesdropping and jamming that have no counterpart in wired networks. Topics will include: authentication, secure hand-offs, key management in wireless networks, attacks on MAC protocols, selfish and malicious behavior in wireless routing protocols, secure multicast. Prerequisite: CYSO 582.

CYSO 692 Secure Distributed Computing Lec. 3./Credit 3.
Covers theoretical and applied aspects of security and privacy needed for the middleware and service-ware architectures to offer reasonable assurance for modern distributed systems. Topics include cloud computing, distributed storage systems, virtualization, distributed systems architectures, technologies and management; distributed system design, security and privacy issues; and applications such as Web services and mobile commerce. Prerequisite: CYSO 582.

CYSO 695 Special Topics in Cyber Security Lec. 3./Credit 3.
A treatment of advanced topics of interest in Cyber Security not routinely covered by existing courses. May be repeated when topics vary.

CYSO 702 Master's Comprehensive Examination Credit 1.
This credit will not count towards the degree. Graded S/U only.

ECOO (Economics – Online)

ECOO 200 Introduction to Economics
Lec. 3./Online/Credit 3.
Basic non-technical course dealing with the fundamental concept and principles of modern economics.

ECOO 201 Principles of Macroeconomics
Lec. 3./Online/Credit 3.
A first course on modern market economies. Emphasizes the determination of national income, fluctuations, and growth; the monetary system; the problems of inflation and unemployment; and international trade.

ECOO 202 Principles of Microeconomics
Lec. 3./Online/Credit 3.
Second principles course on basic tools of market and price theory and their applications to the operations of firms, the consumption and work choices of individuals, and the effects of government taxes and policies.

EDMO (Emergency and Disaster Management – Online)

EDMO 300 Homeland Security Organization
Lec. 3./ Credit 3.
Introduces students to current issues regarding homeland security at the national, regional, state and local levels. Discusses the history of homeland security, including its political history and evolution, particularly as it relates to terrorism. Addresses demands state and local authorities must meet when dealing with national programs and requirements which affect funding and operations on the state and local level during natural or man-made disasters and emergencies.

EDMO 301 Emergency Planning Lec. 3./ Credit 3.
Effective emergency planning is the key to surviving natural and man-made disasters. Risk analysis and the formulation of a comprehensive plan, followed by a vigorous and continuing testing program, are essential elements to surviving an emergency. Topics covered include threat assessment, risk analysis, formulating the plan, staffing the emergency operations center (EEOC), coordinating with supporting agencies, the importance of continuing liaison, managing an actual incident, and conducting an effective follow-up analysis. Various actual case studies are discussed.

EDMO 305 Emergency and Disaster Incident Command
Lec. 3./ Credit 3.
This course is a study of the theory and practice of incident command, the various methods of incident command, and specific focus on the Incident Command System (ICS) used in crises, disasters, and emergency management response systems. Cases are studied in order to assist students in understanding the management and leadership complexity associated with modern emergencies and disasters.

EDMO 400 Border and Coastal Security Lec. 3./ Credit 3.
A study of the federal, state and local organizations involved in border and coaster security, associated homeland security issues, the various policy and operational strategies used for border and coastal access and security, and contemporary boarder and coaster security concerns. Topics also include immigration and non-U.S. approaches to border and coastal security.

EDMO 402 Port Security Lec. 3./ Credit 3.
Port Security is a survey course designed to provide students with a broad knowledge of port security issues. It will examine several contemporary issues, including; the importance of sea borne trade to the North American and United State economies, the value of mega ports to sea borne trade, the vulnerabilities of ports to disruption and asymmetric attack, critical port security incidents such as the Halifax Explosion, and defensive measures to protect ports from disruption or asymmetric attack.

EDMO 405 Special Operations in Emergency Services
Lec. 3./ Credit 3.
This course examines the specialized issues associated with emergency medical services—those issues that are not commonplace or part of everyday procedure. Topics include emergency medical services in mass casualty, biological, chemical and radiological incidents. The course also covers unique topics in emergency medical services, to include the employment of services in complex contingencies, such as those faced when fire, police, terrorist, and other emergencies co-exist with the need to provide medical services on-scene and post-disaster.

EDMO 406 National Disaster Management
Lec. 3./ Credit 3.
Emphasis is on the planning, recovery, and response systems in place in the United States for natural disasters. The course covers issues of organization, operations, training, and other issues associated with the management of natural disasters.

EDUO (Education – Online) Graduate Only

EDUO 531 Educational Tests and Measurements
Lec. 3./Credit 3.
Philosophical bases for study of pupil behavior and performance. Mathematical nature of measurement and standardized tests; construction and standardization of group tests; functions and definitions of aptitude tests, intelligence, and achievement tests; interest inventories and personality tests. Sampling statistical measures, understanding of use, administration, and interpretation of personality, aptitude, and achievement tests.

EDUO 550 Teaching and Learning with Technology
Lec. 3./Credit 3.
Students shall meet each of the six ISTE standards for applying technology in educational settings, including: 1) demonstrating a sound understanding of technology operations and concepts, 2) planning and designing effective learning environments and experiences supported by technology, 3) implementing curriculum plans that include methods and strategies for applying technology to maximize student learning, 4) applying technology to facilitate a variety of effective assessment and evaluation strategies, 5) using technology to enhance their productivity and professional practice, and 6) understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice.

EDUO 560 Multi-Ethnic Approach to Literature for Children Lec. 3./Credit 3.
This course is designed to provide students with experience to develop skill, dispositions, and understanding of a multi-ethnic approach to teaching children literature. Special emphasis requires students to demonstrate competencies through authentic, documentary course projects and varied activities.

EDUO 600 Public School Finance Lec. 3./Credit 3.
Problems of educational finance; theory, practice, and control; federal-state local relations in finance, budgeting, salary schedules, retirement, and school bonds.

EDUO 601 Social Foundations of Education Lec. 3./Credit 3.
Designed to aid student in assessing role of education in society, with consideration of social and economic changes in their bearings on school practices; major psychological and philosophical concepts.

EDUO 602 Human Development in Childhood through Adolescence Lec. 3./Credit 3.
Emphasis upon physical, social, and mental changes. Utilization of insights from sociology, anthropology, and natural sciences; pertinent research findings in developing background for understanding children and adolescents.

EDUO 618 Reading Instruction for All Students: Theory and Practice Sem. 3./Credit 3.
A study of the developmental reading, including current approaches, strategies, and materials of instruction. Emphasis on development.

EDUO 621 Secondary School Administration Lec. 3./Credit 3.
Major problems and issues in organization, administration, and supervision of secondary schools. Nature and function of administration. Examination of recent trends in school administration and supervision.

EDUO 623 Teaching Reading in Content Areas Lec. 3./Credit 3.
Philosophy of developmental reading; types of reading encountered in content areas. Emphasis on teaching-learning strategies to deal with content and process simultaneously.

EDUO 632 Legal Aspects of School Administration Lec. 3./Credit 3.
Legal characteristics of public schools. Authority, powers, and responsibilities of teachers. Aspects of school finances, curriculum, property. Emphasis upon statutes and judicial decisions relating to education.

EDUO 640 Internship-Early Childhood/Elementary Level Trn./Credit 12.
Culminating experience involves student in assuming full responsibility for the management and instruction of classes in an elementary school under close clinical and University supervision. Student will be assessed using the format and criteria designed by the department. Prerequisite: Successful admission to the Teacher Preparation Program and satisfactory performance on required test(s).

EDUO 641 Elementary School Administration Lec. 3./Credit 3.
Analysis of current practices in organization, administration, and supervision of elementary school.

EDUO 645 Personnel Administration in the Public Schools Lec. 3./Credit 3.
An in-depth study of the goals of the school personnel department to attract, develop, retain and motivate personnel to accomplish the school's goals and objectives; assist members to achieve lifetime professional development and growth.

EDUO 650 Internship Seminar Sem. 1./Credit 1.
Designed for education majors engaged in student teaching: discussion of problems, review of lesson and unit plans, and other topics associated with the student teaching process. Student must be enrolled in a student teaching or internship course.

EDUO 651 Elementary School Curriculum Lec. 3./Credit 3.
Basic concepts of curriculum, modern trends in developing educational programs for children. Critical study of reorganization, construction, and administration of elementary curriculum in light of relevant educational principles and objectives.

EDUO 652 School Public Relations Lec. 3./Credit 3.
Examination of public relations in school administration. Critical study of practices in current use.

EDUO 662 Internship in Administration Lec. 3./Credit 3.
Designed for prospective school administrators. Opportunities to observe and participate in operating policy. Student spends 15 hours per week working under the direction of a public school administrator. Approval by dean required.

EDUO 666 Language Development–Communicative Arts Lec. 3./Credit 3.
A consideration of the objectives, methods and materials of instruction issues, trends, and research related to oral language, written expression, listening skills and reading.

EDUO 671 Secondary School Curriculum Lec. 3./Credit 3.
Principles underlying the revision and reorganization of high school curriculum and critical survey of current practices in implementing programs focused upon meeting needs of adolescents.

EDUO 673 Supervision of Instruction Lec.3./Credit 3.
Purpose and principles of instructional supervision at both elementary and secondary levels characteristics of effective supervision; planning, directing, and evaluating instructional programs; and treatment of organization, personnel, and materials.

EDUO 680 Survey of Computers and Data Analyses Lec. 3./Credit 3.
Emphasis on computer and data analyses through examination of the computer system-components, processes, and care. Introduction of hardware and software integration into K-12 curriculum related to promote student learning, administration and management, research and evaluation, statistics, peripheral interface, and personal productivity. Mathematical nature of data analyses to include sampling and statistical measures.

EDUO 681 PK – 12 School Finance Lec. 3./Credit 3.
Principles and issues related to fiscal operations of school management to include use of school facilities and space. Problems of educational finance; theory, practice, and control; federal, state, local relations in finance, budgeting, salary schedules, retirement, and school bonds. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDUO 682 Education Program Evaluation and Planning
Lec. 3./Credit 3.
Introductory course that provides an understanding of research methods, statistical analyses, needs assessment, and program evaluation. The course includes discussions regarding the importance of research in the education profession, research methods, the use of technology and statistical methods, understanding published research, and the use of research to improve educational effectiveness. Ethical and legal aspects will be discussed.

EDUO 683 School Organizational Systems and Theory
Lec. 3./Credit 3.
Process of strategic planning to include development of goals and objectives with measurable outcomes. Using behavioral science, emphasis will be placed on understanding systems theory, organizational development, and the change process of systems, organizations, and individuals. Development of effective communication skills to implement consensus building and negotiations will be discussed. The development of the current school system and education will be discussed. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDUO 684 Secondary School Leadership (Grades 7-12)
Lec. 3./Credit 3.
Major problems and issues in organization, administration, and supervision of secondary schools with specific emphasis on developmental stage of students. Nature and function of administration. Examination of recent trends in school administration and supervision at the secondary school level. Adolescent development issues and the role of leadership with professional ethics will be discussed. Principles of school security and safety will be discussed.

EDUO 685 Legal Aspects of School Administration
Lec. 3./Credit 3.
Legal characteristics of schools and the history of the legal process in public and private education in the United States and Virginia. Authority, powers, and responsibilities of teachers and administrators. Aspects of school finances, curriculum, property. Emphasis upon statutes and judicial decisions relating to education to include current issues. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDUO 686 Elementary School Leadership (Grades PK-6)
Lec. 3./Credit 3.
Major problems and issues in organization, administration, and supervision of elementary schools with specific emphasis on developmental stage of students. Nature and function of administration. Examination of recent trends in school administration and supervision at the elementary school level. Child development issues and the role of leadership with professional ethics will be discussed. Principles of school security and safety will be discussed.

EDUO 687 Human Resource Leadership in Schools and Districts Lec. 3./Credit 3.
An in-depth study of the goals of the school personnel department to attract, develop, retain and motivate personnel to accomplish the school's goals and objectives; assist members to achieve lifetime professional development and growth to include adult learning. Topics of personnel issues, pay, fringe benefits, records, professional negotiations, insurance, fringe benefits, and school counseling programs from a leadership perspective will be discussed. This course will include a 10 hour practicum experience.

EDUO 688 Curriculum Planning and Design
Lec. 3./Credit 3.
Basic concepts of curriculum development and modern trends in developing educational programs for children. Critical study of reorganization, construction, and administration of elementary and secondary curriculum for teaching and student learning in light of relevant educational principles, objectives, and global issues. Human growth and development will be investigated to include motivational and learning theories applied to effective curriculum planning and design. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDUO 689 School and Community Relations and Diversity
Lec. 3./Credit 3.
Examination of public relations in school administration in a multicultural community. Critical study of practices, emerging issues and trends that impact the school community. Understanding community resources and partnerships of school, family, business, government and higher education institutions. The importance of community relations, the diverse school community, and marketing strategies will be discussed. The importance of education and equity in a democratic society with economic impact will be discussed. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDUO 690 Supervision of Instruction Lec. 3./Credit 3.
Purpose and principles of instructional supervision at both elementary and secondary levels characteristics of effective supervision; planning, directing, and evaluating instructional programs; and treatment of organization, personnel, and materials. Applied learning, motivational theories, diversity, emerging theories and trends that impact the school community, and community resources and partnerships will be discussed. Principles of school security and safety will be discussed. Ethical and legal aspects will be discussed. This course will include a 10 hour practicum experience.

EDUO 691 Internship in Administration Trn./Credit 9.
Designed for prospective school administrators. Opportunities to observe and participate in operating policy. Student will complete a minimum of 400 clock hours of a structured and supervised internship to include multiple sites with diverse populations.

EDUO 702 Master's Comprehensive Examination
Lec. 0./Credit 0-1.
This credit will not count towards the degree. Pass/Fail grading only.

STAO 600 Statistics Lec. 3./Credit 3.

An interdisciplinary course for graduate students. Procedure of data reduction presentation and measures of central tendency, variability, and relations are presented to develop both an understanding of and an ability to utilize descriptive and inferential statistics. Permission of the instructor.

EDUO 611 Techniques and Problems in Educational Research Lec. 3./Credit 3.

Develop skills necessary to read, analyze, interpret and criticize the range of educational research designs including experimental, correlational, survey, descriptive, case study, ethnography, narrative, policy and longitudinal research.

EDUO 710 Leadership Theory & Practice in Educational Organizations Lec. 3./Online/Credit 3.

The course is the foundation course for the Doctoral Program in Educational Leadership. Leadership will be defined, demystified, and distinguished from management and administration. The roles and expectations of leaders will be explored, and the competencies required for leadership will be identified. Issues of power, authority, and ethics are studied. Candidates will develop a theoretical position regarding their personal administrative style.

EDUO 712 Higher Education Finance
Lec. 3./Online/Credit 3.

The purpose of this course is to provide the student with an overview of the financial and budget elements that are essential to a higher education institution's existence. This course draws upon basic and applied literature in the economics and finance of higher education, including work on processes of individual choice (e.g., students' sensitivity to tuition and aid levels), on federal, state, and institutional approaches to financing higher education and students, and on financial management, including budgeting and cost-effectiveness analysis. Studies in fund raising, alumni relations, and foundation management are also included.

EDUO 713 School District Finance and Budgeting
Lec. 3./Online/Credit 3.

This course offers a study of the processes by which financial decisions are made by local school districts, with special emphasis on the roles of district administrators in the budgeting process. Included are the techniques of constructing and managing the budget, while addressing issues of need and equity in the school community. Also covered are the sources of school revenues and an introduction to the process and principles of facility planning.

EDUO 716 History of Higher Education
Lec. 3./Online/Credit 3.

This course explores the administrative development of American higher education from 1636 to the present, including internal trends and external forces. It adopts the widely acknowledged view that knowledge of the history of higher education is important for successfully providing leadership and performing other professional responsibilities. History provides important perspectives for routinely resolving critical leadership issues and problems. This is the case because institutions and institutional systems over time develop customs, values and traditions that continually affect students, faculty, administrators and other stakeholders. History identifies institutional customs, values and traditions, and analyzes their origins and consequences.

EDUO 717 History of PK-12 Educational Reform
Lec. 3./Online/Credit 3.

This course surveys the history of American education from the Colonial Era to the present. It treats the changing character of education in the context of broader social and cultural developments. The course attempts to provide both knowledge of the history of American education and an appreciation of historical perspectives as ways of understanding contemporary education. Students will consider the creation, purposes, effects, and evolution of public schools in the United States, especially at the elementary and secondary level, as well as look at conflict over school structure, goals, and governance. By putting these debates in the context of American economic, social, and cultural history, students will also ask about the effects of public schooling on particular groups that have experienced discrimination and will see what changes arose from such conflicts.

EDUO 718 Policy and Politics in Education
Lec. 3./Online/Credit 3.

This course surveys local, state, and federal legal, political, economic, and social factors that contribute to the processes of educational policy development, implementation, and evaluation. It explores current policy and governance issues. Students will examine a variety of recent reform efforts at both the federal and state levels, with particular attention to No Child Left Behind and the debates around its reauthorization, and to the emergence of a select group of high performing charter schools and the views of their critics. Finally, students will consider questions of politics, with an eye towards how to move ideas into action. Includes a fieldwork requirement.

EDUO 719 Diversity and Equity in Education
Lec. 3./Online/Credit 3.

The course addresses changing demographics in our society that have created the need for educational and business leaders who are culturally competent change agents and policy makers, especially as they consider the impact that cultural variables such as race, ethnicity, gender, and age have on the overall performance of people within an organization. Course content deals with diversity both among the student body and the work force. It addresses the ways that people are alike and explores issues of difference. It focuses on the power that valuing difference can have in establishing quality interpersonal relations, in taking advantage of the cultural richness that can result from diversity, and in creating mutual respect among groups. It examines how the educational leaders might overcome resistance to change in this regard. Students will demonstrate the acquisition of specific multicultural awareness, knowledge and skills competencies that are necessary to become culturally competent policy makers within educational organizations. Emphasis will be placed on the student's ability to create environments within their institutions that foster the highest level of performance by those individuals who learn and work within the institution.

EDUO 720 Assessment, Evaluation and Accountability
Lec. 3./Online/Credit 3.

This course is designed for the study of educational problem solving, strategic planning, accountability and their relationship to needs assessment techniques, evaluation methodologies, and data driven decision-making processes. It will explore strategies and tools to collect, analyze, organize, and present comprehensible and useful data. Strategic planning will encompass the organization's process of examining its strategy and resources to execute the plan. Data driven decision-making exercises will address problems and issues in a variety of educationally related scenarios.

EDUO 722 College Student Development
Lec. 3./Online/Credit 3.

This course will review research and literature on college students from freshman through graduate school. It will include a discussion of student subcultural patterns and a survey of the major areas of higher education law regarding the college student. The course will conclude with a study of the organization and administrative functioning components, concepts, and models of student personnel administration systems using a historical and topical approach.

EDUO 723 Legal Issues in Higher Education
Lec. 3./Online/Credit 3.

This course serves as an overview of the legal issues that confront college and university personnel. Pertinent federal and state statutes as well as case law will be used to instruct about legal rights and responsibilities of university and college administrators. The legal relationships between the institution and the faculty, the student, the state government, and the federal government will be explored. In addition, the course focuses on the nature of framing issues, analyzing situations and cases, and providing sensible (sometimes innovative) recommendations/solutions.

EDUO 724 Organization and Governance in Higher Education Lec. 3./Online/Credit 3.

Focus on the administration of institutions of higher learning. Emphasis will be placed on higher education structure and characteristics, intra-institutional and extra-institutional forces affecting the governance of higher education, power delineations and struggles, and principles of problem solving.

EDUO 725 Supervision and Professional Development
Lec. 3./Online/Credit 3.

This course offers an overview of personnel functions in educational environments with a focus on recruitment, selection, orientation, evaluation, and development; interpersonal skills; motivational theories; and the utilization of technology in the personnel process. Students examine educators' professional learning in organizations and its contributions to organizational change, learning, and renewal.

EDUO 726 Legal Issues in PK-12 Education
Lec. 3./Online/Credit 3.

This course surveys the legal aspects of public K-12 education, including: legal structure; employee rights; employee discipline; curriculum; students' rights; student discipline, special education; torts; contracts, and religion. The impact of federal and state constitutions, statutes, and court decisions on education are also reviewed.

EDUO 727 Instructional Improvement
Lec. 3./Online/Credit 3.

This course promotes visionary PK-12 instructional leadership with capacity to improve academic achievement. It surveys research-based models for educational improvement and planning, particularly in high needs areas: literacy, second language learning, mathematics, science, and technology. Includes a fieldwork requirement.

EDUO 734 Advanced Quantitative Research Methods
Lec. 3./Online/Credit 3.

This course focuses on the design of experimental education-related research. Emphasis is placed on the collection and statistical analysis of quantitative data and the use of statistical software.

EDUO 739 Dissertation Research Seminar
Lec. 3./Online/Credit 3.

This course is designed to provide doctoral students with the skills necessary to develop a dissertation prospectus. Students learn how to: 1) conduct a literature review; 2) critique relevant theories; 3) write cogent statements of purpose and research question(s); 4) develop a research design and select appropriate methodology and 5) carry out data collection and analysis. This course is also designed to assist students in the development of their research prospectus in preparation for presentation to the Ph.D. Advisory Committee. Students are to complete a draft of at least 3 chapters of their dissertation.

EDUO 802 Ph.D. Comprehensive Examination
Lec. 0./Online/ 0 Credit

The purpose of the comprehensive examination is to demonstrate an understanding of knowledge in relevant, related fields of study, which undergirds the student's dissertation research.

EDUO 814 Literature Review Lec. 3./Online/Credit 3.
This course is designed to help students write a systematic literature review that is appropriate for a dissertation. The course will emphasize skills for writing the Problem Statement and conducting and writing the Review of Literature. Substantial time will be devoted to researching peer-reviewed articles on the topic the PHD student has chosen and critiquing previously written Literature Reviews as a way of helping the student understand the differences between a well-written and a poorly-written literature review. Substantial reading of journal articles will be required.

EDUO 831 Qualitative Research Methods
Lec. 3./Online/Credit 3.
The ability to carry out, interpret, understand and digest research in diverse contexts and with diverse populations is critical for successful educational leaders. The course provides learning experiences to continue to understand qualitative research methodologies, data collection techniques, analysis and communicating results. Some topics include: structured class inquiry, data collection and data analysis; design of original qualitative studies; and writing of research results. Emphasis on relationship between research and practice.

EDUO 832 Quantitative Research Methods
Lec. 3./Online/Credit 3.
This course focuses on the design of descriptive and correlational education-related research. Emphasis is placed on the collection and statistical analysis of quantitative data and use of statistical software.

EDUO 833 Advanced Qualitative Research Methods
Lec 3/ Online / Credit 3.
This course focuses on design of qualitative related research with the emphasis on design of effective methodology for collection of data, analysis and interpretation.

EDUO 834 Advanced Quantitative Research Methods
Lec. 3./Online/Credit 3.
This course focuses on the design of experimental education-related research. Emphasis is placed on the collection and statistical analysis of quantitative data and the use of statistical software.

EDUO 839 Dissertation Research Seminar
Lec. 3./Online/Credit 3.
This course is designed to provide doctoral students with the skills necessary to develop a dissertation prospectus. Students learn how to: 1) conduct a literature review; 2) critique relevant theories; 3) write cogent statements of purpose and research question(s); 4) develop a research design and select appropriate methodology and 5) carry out data collection and analysis. This course is also designed to assist students in the development of their research prospectus in preparation for presentation to the Ph.D. Advisory Committee. Students are to complete a draft of at least 3 chapters of their dissertation.

EDUO 840 Dissertation Research I Lec. 4./Online/ Credit 4.
Designed for students who are preparing a doctoral dissertation. Students enroll in EDUO 840 in the first session after completion of course work (to include the completion of the dissertation prospectus and the Dissertation Research Seminar). The student works on their dissertation (and is required to complete up to three chapters). This work is accomplished under the supervision of their dissertation chairperson and committee, who oversee the student's work toward completion. (Note: Students will have up to three sessions to repeat/complete this portion of the dissertation).

EDUO 841 Dissertation Research II
Lec. 4./Online/ Credit 4.
Designed for students who are preparing a doctoral dissertation. Students enroll in EDUO 841 after successful completion of EDUO 840. The student works on their dissertation and is required to complete a specified number of chapters as designated by the dissertation chairperson. This work is accomplished under the supervision of their dissertation chairperson and committee, who oversee the student's work toward completion. (Note: Students will have up to three sessions to repeat/complete this portion of the dissertation).

EDUO 842 Dissertation Research III
Lec. 4./Online/ Credit 4.
Designed for students who are preparing a doctoral dissertation. Students enroll in EDUO 842 after successful completion of EDUO 841. The student works on their dissertation (and is required to complete a specified number of final chapters and revisions as designated by the dissertation chairperson). This work is accomplished under the supervision of their dissertation chairperson and committee, who oversee the student's work toward completion. (Note: Students will have up to three sessions to repeat/complete this portion of the dissertation).

EDUO 843 Dissertation Defense Lec. 0./Online/ 0 Credit.
The doctoral candidate presents and defends their dissertation to their dissertation committee. The course is the culmination of the Ph.D. program.

EMSO (Emergency Medical Systems – Online)

EMSO 205 Foundations of EMS Systems Lec. 3./ Credit 3.
Introduces students to the design and operation of EMS systems and the delivery of patient care. The history of EMS, the interface of public and private organizations and a review of the various personnel who comprise these systems are examined in relation to their impact on the health care delivery system.

EMSO 300 Survey of Social, Legal and Political Issues in EMS Lec. 3./Credit 3.
Social, political, and legal issues at the local, state and national levels. Designed to provide a conceptual framework for the understanding of contemporary issues in emergency medicine.

EMSO 301 Emergency and Disaster Management
Lec. 3./Credit 3.
This course is the discipline of understanding, dealing with and avoiding risks. Emergency functions, response structures, technology use, information management, and decision-making.

EMSO 302 Teaching Methods and Techniques in EMS
Lec. 3./Credit 3.
Fundamentals of the learning process, information delivery preparation, use of lesson plans and psychomotor skills instruction.

EMSO 305 Fundamentals of Emergency Service Organization Management Lec. 3./ Credit 3.
Examines emergency medical services organizations management functions and styles. Management functions studies are: planning, organizing, staffing, directing, and controlling. Management examined as both a science and an art with emphasis on knowledge and personal abilities necessary to succeed as a manager.

EMSO 307 Safety and Risk Management Lec. 3./ Credit 3.
An exploration of management and organizational principles with emphasis on controlling the risk associated with operations in the emergency services. In depth discussion of recognizing and controlling risk, personnel accountability, incident management systems and post-incident analysis as related to the emergency services. Critical analysis of private protection measures available to reduce loss potential.

EMSO 310 Ethics, Health Care and the Law Lec. 3./Credit 3.
Review of legal concepts in emergency medical services and their application and impact on the ethical provision of health care in the United States.

EMSO 400 Quality Assurance Program Design and Implementation Lec. 3./Credit 3.
Principles of quality assurance in medical services and operational evaluation. Emphasis is placed on accountability, multi-agency involvement and resource allocation.

EMSO 401 Special Topics in EMS Quality Assurance
Lec. 3./Credit 3.
Review models and case studies in response times, reduction of mortality and morbidity, ambulance placement strategies and cost-benefit analysis. (Prerequisite: EMSM 400).

EMSO 403 Strategic Planning Lec. 3./Credit 3.
Planning theory and application as it relates to contemporary issues in emergency medical services delivery and system development.

EMSO 404 Case Studies in EMS Management Practice
Lec. 3./Credit 3.
This course covers case study review for the application of principles in personnel management, service delivery, risk management and related management areas.

EMSO 406 Injury and Illness Prevention in the Community
Lec. 3./ Credit 3.
This course provides a global overview of injury and illness prevention for EMS personnel and the community. This includes a review of epidemiological patterns of illness and injuries emphasizing the role of EMS in prevention and public health.

EMSO 407 EMS Quality Improvement and Performance Management Lec. 3./ Credit 3.
A study of the principles and practices of quality and performance management in medical services. Topics to be discussed include defining performance measurement; discussing models of quality; collecting and analyzing data; and planning, implementing, and evaluating quality initiatives.

EMSO 408 EMS Finance Lec. 3./ Credit 3.
Students are given an overview of financial and managerial accounting analysis and reporting as they relate to EMS. The course also defines and describes various EMS revenue streams, reviews budgeting concepts in the context of an EMS operation, and presents information to assist in the understanding of accounting control, planning and decision-making processes.

EMSO 403 Strategic Planning Lec. 3./Credit 3.
Planning theory and application as it relates to contemporary issues in emergency medical services delivery and system development.

EMSO 404 Case Studies in EMS Management Practice
Lec. 3./Credit 3.
Case study review for the application of principles in personnel management, service delivery, risk management and related management areas.

EMSO 405 Internship Lec. 3./Credit 3.
Research, writing and hands-on training in selected subject areas. Arranged in conjunction with local, regional or state agencies. Project must be approved by advisor.

ENGO (English – Online)

ENGO 100 Fundamental Writing Lec. 3./Online/Credit 3.
A concentrated review of grammar, mechanics, sentence structure, usage, and the development of fundamental writing skills. A three credit course, English 100 is offered only on an S/U basis and cannot count toward the English requirement in General Education.

ENGO 101 Written Communication Lec. 3./Online/Credit 3.
An introductory sequence in composition, Written Communication contributes to the liberal education of students regardless of their majors. Each course approaches writing as a process and each provides experience in writing with various rhetorical strategies. ENGO 101 emphasizes the expressive and expository. "C' is a passing grade for Written Communication. Prerequisite: Passage of a placement exam or ENGO 100.

ENGO 102 Written Communication Lec. 3./Online/Credit 3.
An introductory sequence in composition, Written Communication contributes to the liberal education of students regardless of their majors. Each course approaches writing as a process and each provides experience in writing with various rhetorical strategies. ENGO 102 focuses upon the persuasive and literary, and includes a research paper requirement. "C' is a passing grade for Written Communication.

ENGO 214 Selections in Literature Lec. 3./Credit 3.
Study of selected works designed to offer basic acquaintance with literature and to encourage independent study and leisure reading.

ENGO 215 216 World Literature Lec. 3./Online/Credit 3.
Study of selected world masterpieces in translation, as they relate to artistic, historical and philosophical contexts from which they emerged.

ENGO 218 Applied Communication Lec. 3/Online/Credit 3.
This course develops communication, language arts, and English skills in an applied setting. Emphasis is placed on transferring improved reading, writing, listening, speaking, problem-solving, visual, and nonverbal skills to occupational and personal lives. This course includes occupation-specific applications in business, marketing, technical, trade, and industrial areas.

ENGO 314 African-American Literature
Lec. 3./Online/Credit 3.
A study of African-American literature from the eighteenth century to the present, based on selected works of its most representative authors, with the objective of appraising its place in the life history and heritage of Black American people and its contribution to American literature and culture.

ENGO 323 The Bible as Literature Lec. 3./Credit 3.
Course offers students the opportunity to study various biblical literary forms in the Hebrew Bible (Old Testament) and the New Testament, with emphasis placed on narrative modes and narrative features such as character, plot, irony, and symbolism. Where appropriate, students will examine ways in which Biblical forms, themes, and images have influenced American literature and film. Prerequisite: ENG 101-102

ENGO 328 Eighteenth-Century English Literature
Lec. 3./Credit 3.
In-depth study of selected eighteenth century authors. Prerequisite: ENG 203-204 or permission of department chair.

ENGO 329 Nineteenth-Century English Literature
Lec. 3./Credit 3.
In-depth study of selected nineteenth century authors. Prerequisite: ENG 203-204 or permission of department chair

ENSO (Environmental Science – Online)

ENSO 204 Introduction to Environmental Science
Lec. 3./Credit 3.
A basic ecology course investigating the interaction between organisms and their biotic and abiotic environment, focusing on human populations and their effects on the natural environment.

ENTO (Entrepreneurship – Online)

ENTO 210 Introduction to Entrepreneurship
Lec. 3./Online/Credit 3.
Introduction to the practical and theoretical considerations involved in entrepreneurship. Surveys the preparation of business plans, strategies for financing, market assessment, development and protection of business ideas, management, and strategies for survival for new business ventures.

FADO (Fire Administration – Online)

FADO 101 Philosophy of Fire Protection Lec. 3./Credit 3.
The philosophy and history of fire protection; history of loss of life and property to fire. Review of municipal fire defenses and study of the organization and function of federal, state, county, and private fire protection agencies. Survey of professional fire protection career opportunities.

FADO 102 Fundamentals of Fire Prevention
Lec. 3./Credit 3.
Organization and function of fire prevention organizations; inspections; surveying; and mapping procedures. Recognizing fire hazards; engineering a solution to the hazards; and enforcing hazards solutions. Public relations as affected by fire prevention also.

FADO 103 Fire Science I Lec. 3./Credit 3.
Fundamentals of fire investigation. Chemistry of fire and fire behavior, including points of origin, ignition sources, properties of combustibles, residues of pyrolysis, and arson evidence.

FADO 105 Fire Protection Equipment and System I
Lec. 3./Credit 3.
Introduction to the concept of fire protection systems. Study of extinguishing agents and their application. Concentration on fixed and portable water carbon dioxide, dry chemical, dry powder, and foam halogenated systems.

FADO 200 Fire Protection Equipment and System II
Lec. 3./Credit 3.
This is a continuation of FADM 105 with special emphasis on sprinkler systems, automatic detection systems, municipal alarm systems and the design requirements for application in fire prevention and fire suppression. Prerequisite: FADM 105.

FADO 201 Fire Hydraulics Lec. 3./Credit 3.
Hydrostatics and hydrokinetics, Bernoulli's Theorem, Pascal's Theorem Venturi Action, Hazen-Williams Formula, water distribution systems, pump velocity, discharge, friction loss, engine and nozzle pressures as they relate to the study of fire science. Concentration on theory followed by practical application.

FADO 300 Survey of Legal, Social and Political Issues
Lec. 3./Credit 3.
Social variables, political and legal issues at the local, state and national levels.

FADO 301 Risk Management Lec. 3./Credit 3.
Comprehensive course that will help the student with identification, analysis and measure of loss possibilities and the principle method of handling such contingencies.

FADO 302 Systematic Analysis to Public Fire Safety
Lec. 3./Credit 3.
An overview of system analysis, application and procedures pertaining to fire safety.

FADO 303 Fire Officer I Lec. 3./Credit 3.
Comprehensive course for fire service leadership dealing with the topics of building construction, building codes and ordinances, fire fighting strategy and tactics, chemistry, safety practices and report writing.

FADO 305 Community Risk Management for Fire and Emergency Services Lec. 3./Credit 3.
This course provides a framework for understanding the ethical, sociological, organizational, political and legal components of community risk reduction.

FADO 306 Fire and Emergency Service Administration Lec. 3./Credit 3.
Fire and emergency service administrative structures and processes. This course prepares students to assume administrative positions within fire and emergency service organizations and examines roles and responsibilities of administrators, management and leadership theory and practices, and common administrative functions. Focus on leadership, administration, budgeting and tools for analytical problem solving.

FADO 310 Public Finance Lec. 3./Credit 3.
Basic concepts and modes of government financing, especially local and state governments.

FADO 400 Teaching Methods and Techniques Lec. 3./Credit 3.
Fundamentals of the learning process, information delivery preparation and use of lesson plans. Students will prepare and make presentation on selected topics. Presentations will be video taped to facilitate critique and feedback.

FADO 401 Fire Investigation and Legal Problems Lec. 3./Credit 3.
Investigation of fires, stressing arson investigation, techniques of investigation reports and courtroom demeanor. Legal aspects and problems will be emphasized.

FADO 402 Technical Report Writing Lec. 3./Credit 3.
Practical exercises on preparing reports concerning investigations, problem areas and initiation of new concepts.

FADO 403 Fire Investigation and Analysis Lec. 3./Credit 3.
This course provides the student with the fundamentals and technical knowledge needed for proper fire scene interpretation, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes.

FADO 405 Disaster Planning and Control Lec. 3./Credit 3.
Students in this course learn the concepts and principles of community risk assessment, planning and response to fires, natural and man-made disasters including NIMS ICS, mutual aid and automatic response, training and preparedness, communications, civil disturbances, terrorist threats/incidents, hazardous materials planning, mass casualty incidents and other disasters.

FADO 406 Regulatory Issues in Fire Emergency Services Lec. 3./Credit 3.
This course covers issues relating to a department wide hazardous materials program management, includes issues that are pertinent to officers and managers including regulations and requirements for hazardous materials preparedness, response, storage, transportation, handling and use and the response to terrorist attacks. The course covers federal, state and local emergency response planning and regulatory requirements for hazardous materials.

FADO 407 Public Policy: Development and Administration Lec. 3./Credit 3.
This course examines the impact of public policy on the fire service. It includes a review of the American Legal System with a focus on how laws are enacted, the formation of public policy and the legislative and political process and how the processes may impact the fire service.

FADO 413 Practicum Lec. 3./Credit 3.
Research, writing and hands on training of selected subject areas. Practicum area of concentration must be approved by advisor.

FINO (Finance – Online)

FINO 290 Personal Finance Lec. 3./Online/Credit 3.
An introduction to personal money management. Topics include savings and investment alternatives, budgeting, use of credit, basics of stocks and bonds, insurance as a risk reduction tool, and the role of real estate in a personal portfolio.

FINO 304 Business Finance Lec. 3./Online/Credit 3.
Study of concepts and techniques for determining the need, acquisition, and management of financial resources of the firm. Introduction to analysis of financial statements. Prerequisite: ACCO 204.

FREO (French – Online)

FREO 101-102 Elementary French Lec. 3./Lab 1./Online/Credit 3.
Introductory course designed to develop the four skills listening, speaking, reading and writing. Oral proficiency and communicative competence stressed.

FREO 201-202 Intermediate French Lec. 3./Lab 1./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic French, Quebecois and African texts. Prerequisites: FREO 102 or the equivalent.

FREO 217 French for Business and Industry Lec. 3./Lab 1./Credit 3.
Communication in the Francophonic world of business. Study of commercial and economic vocabulary, and trade and advertising practices of Europe, Africa, and Quebec. Prerequisite: FREO 201 or the equivalent. May be substituted for FREO 202.

FREO 301-302 Advanced Oral and Written Expression Lec. 3./Online/Credit 3.
Intensive practice in speaking. Review and further analysis of grammatical structures and idiomatic expressions. Prerequisite: FREO 202 or the equivalent.

FREO 303-304 Civilization of France and Francophone Countries Lec. 3./Online/Credit 3.
A broad survey of French civilization and francophone cultures. Emphasis first semester on the history of France from early periods to modern times. Emphasis second semester on the twentieth century, including colonialism, decolonization and the French presence in Africa, the Americas and Asia. Prerequisite: FREO 202 or the equivalent.

FREO 305 French Literature in English Translation Lec. 3./Online/Credit 3.
A study of selected masterpieces of French Literature. May not be taken to fulfill foreign language requirement of major requirement.

FREO 306 Afro-French Literature Lec. 3./Online/Credit 3.
A concentration on a specific topic, author, area in the literature of French-speaking Africa and the Caribbean. Three class hours a week. Either semester. Prerequisite: FREO 202 or equivalent.

FREO 321-322 Introduction to Literature Lec. 3./Online/Credit 3.
A survey of French Literature through the study of selected works. First semester includes survey of Middle Ages, the Renaissance, and the 17th century. Second semester surveys of 17th through the 20th. Prerequisite: FREO 202 or the equivalent.

FREO 440 Experiential Learning Lec. 3./Online/Credit 3.
Can include study abroad, research abroad, domestic or international internships.

GEOO (Geography – Online)

GEOO 201 World Regional Geography Lec. 3./Online/Credit 3.
The physical environment of atmosphere, land, and water provides the setting for systematic study of cultural variations across world political regions.

GEOO 202 Economic Geography Lec. 3./Credit 3.
Patterns of economic activity across the physical and cultural landscapes are treated at the level of the manufacturing plant, the corporation, and the industry, as well as at local to international scales.

GERO (German – Online)

GERO 101-102 Elementary German I II Lec. 3./Lab 1./Credit 3.
Introductory course designed to develop the four skills listening, speaking, reading and writing. Oral proficiency and communicative competence stressed.

GERO 201-202 Intermediate German I II Lec. 3./Lab 1./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic German texts. Prerequisites: GER 102 or the equivalent.

GERO 300 Readings in Scientific German Lec. 3./Lab 1./Credit 3.
Open to students majoring in science. Prerequisite: GER 202 or the equivalent.

GERO 301 German Literature in English Translation Lec. 3./Online/Credit 3.
Study of selected works of contemporary writers.

GERO 303 German Civilization Lec. 3./Online/Credit 3.
History of German culture geography, history, art and social customs. Prerequisite: GER 202 or consent of the instructor.

GERO 301-302 Advanced German Conversation I II Lec. 3./Online/Credit 3.
Extensive practice in spoken and written German based on various prose readings. Intensive grammar and vocabulary review.

GERO 321 Topics in German Literature and Culture Lec. 3./Online/Credit 3.
This course exposes students to important political and social issues through the study of literary works, films, arts and music. Focuses on conversation.

GERO 440 Experiential Learning Lec. 3./Online/Credit 3.
Can include study abroad, research abroad, domestic or international internships.

GREO (Greek – Online)

GREO 102-102 Elementary Greek Lec. 3./Online/Credit 3.
This course will introduce students to the basics of Koine Greek vocabulary and grammar, for the expressed purpose of reading the Greek New Testament in its original language. An inductive approach employing biblical verses to illustrate grammatical points, will allow exposure to the canonical writing themselves from the start. There will also be discussion of important Greek terms and concepts from the biblical readings.

HEAO (Health Education – Online)

HEAO 200 Health Education Lec. 2./Online/Credit 2.
Designed to help the student to understand himself/herself as a human organism; to become familiar with various influences that affect health; to coordinate experiences for more effective understanding of healthful living in the world of today; and to aid himself/ herself in solving personal health problems. Fall and spring semesters.

HEAO 441 Health and Aging Lec. 3./Online/Credit 3.
A study of the common health problems associated with aging and their causes, and a review of the preventive and corrective measures believed necessary to insure optimal health. To include physical, social, and mental factors and the interrelationships among them.

HEBO (Hebrew – Online)

HEBO 101-102 Elementary Hebrew
Lec. 3./Online/Credit 3.
This course will introduce students to the basics of Biblical Hebrew vocabulary and grammar, for the expressed purpose of reading the Hebrew Bible / Old Testament in its original language. An inductive approach employing biblical verses to illustrate grammatical points, will allow exposure to the canonical writing themselves from the start. There will also be discussion of important Hebrew terms and concepts from the biblical readings.

HISO (History – Online)

HISO 105 World Civilizations I Lec. 3./Online/Credit 3.
Surveys development of human societies from the first literate, urban civilizations (3500 B.C.) to the middle of the 18th century. Themes emphasized include economic, religious, intellectual, social (gender, race, age, families, communities), ecological, political, and military history. Selected historical events in Asia, Africa, Europe, and the Americas will be considered.

HISO 106 World Civilizations II Lec. 3./Online/Credit 3.
Surveys the period from the French Revolution (1789) to the present, years when many aspects of the contemporary world were shaped. Themes emphasized include economic, religious, social (gender, race, age, families, communities).

HISO 107 Survey of African-American History
Lec. 3./Online/Credit 3.
Part of the World Civilization sequence, a survey of the experiences of Blacks in America from 1500 to the present. Includes material about peoples and institutions of pre-colonial Africa and the Atlantic slave trade.

HISO 201 History of the United States to 1865
Lec. 3./Credit 3.
Intensive study of political, economic, and social and intellectual development of American society from the colonial period to the end of the Civil War. Note that HIS 201 includes Virginia Studies.

HISO 202 History of the U.S. 1865 to Present
Lec. 3./Online/Credit 3.
The history of the United States beginning with the Civil War through today.

HISO 331 Twentieth-Century Europe
Lec. 3./Online/Credit 3.
Focuses upon the causes and results of world wars, depressions, totalitarian ideologies, Cold War, decolonization movement, contemporary scene, and American influence.

HISO 360 Latin America to Independence
Lec. 3./Online/Credit 3.
Examination of Latin American history from Native American origins through independence. Particular attention is paid to pre-Columbian civilizations, Spanish and Portuguese colonization, and struggles for national independence.

HISO 361 Latin America Since Independence
Lec. 3./Online/Credit 3.
Examination of Latin American history from independence to the present. Particular attention will be paid to inter-American relations and the problems of Latin American nations in the modern world.

HISO 410 American Foreign Policy Lec. 3./Online/Credit 3.
History of U.S. foreign policy from 1890 to present.

HMRO (Human Resources Management – Online)

HMRO 315 Training and Development in Organizations
Lec. 3./Online/Credit 3.
Identifying, assessing, developing, conducting, and evaluating planned learning activities for the purpose of increasing employee performance and organizational effectiveness. The process of needs assessment, diagnosis, interventions, and evaluations will be practiced for various client systems. Prerequisite: MGMO 312.

HMRO 316 Compensation and Benefits Administration
Lec. 3./Online/Credit 3.
Exploration of the process, concepts, and methods used to determining rewards and indirect financial compensation or benefits. Compensation and benefit administration, cost pressures and legal challenges, and survival strategies in a competitive international marketplace will be covered. Prerequisite: MGMO 312.

HMRO 417 Legal Aspects of Human Resource Management
Lec. 3./Online/Credit 3.
Overview of legal issues that are especially relevant to human resource management including Age Discrimination Employment Act 1967, Americans with Disabilities Act 1990. Civil Rights Act 1964, Equal Employment Opportunity Programs, Family and Medical Leave Act 1993, Pregnancy Discrimination Act 1978, Rehabilitation Act 1973, and Sexual Harassment. Examples of equal opportunity and employment laws in other countries that affects multinational corporations and trade will be covered. Prerequisites: MGMO 305, 312, and 321.

HMRO 418 Organizational Change
Lec. 3./Online/Credit 3.
Exploration of the process of planning and implementing interventions to create interpersonal, group, intergroup, or organization-wide change. This course presents the theoretical foundations of organization development as an applied behavioral science. Students will also be introduced to the types of interpersonal, intra-group, intergroup, and organizational interventions that are used to effect comprehensive and lasting changes.

HMRO 499 Human Resources Management Seminar
Sem. 3./Online/Credit 3.
This course is meant to provide a capstone experience for senior students in Human Resource Management. Current issues and other key topics will be covered and student activities will also focus on the successful completion of the Human Resources Certification Institute examination. Prerequisites: Senior Standing in Human Resources Management Program or permission from department chairperson.

HUMO (Humanities – Online)

HUMO 201-201 Seminar in Humanities I-II
Lec. 3./Online/Credit 3.

Acquaints students with the thoughts, creations, and actions of man reflected in selected literary, musical, dramatic, and other creative productions of past and present in the fine arts and humanities. Through critical and creative study and/or production, individual students will be encouraged in a knowledge of those human values that have survived the test of time with the goal of obtaining and understanding the creative techniques and disciplines used to transmit those values.

JACO (Journalism and Communications – Online)

JACO 220 Principles of Public Relations
Lec. 3./Online/Credit 3

This course introduces students to the basic concepts of public relations. It surveys principles, theories, strategies, techniques and practices of the public relations profession.

JAPO (Japanese – Online)

JAPO 101 Elementary Japanese I Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

JAPO 102 Elementary Japanese II Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: JAP 101 or the equivalent.

JAPO 201 Intermediate Japanese I Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: JAPO 102 or the equivalent.

JAPO 202 Intermediate Japanese II Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: JAPO 201 or the equivalent.

JAPO 301-302 Intermediate Japanese Conversation I-I
Lec. 3./Online/Credit 3.

This course will provide extensive practice for conversation, reading and writing systems: Katakana, Hiragana and Kanji. Emphasis on developing communicative skills.

JAPO 303-304 Advanced Japanese Reading I-II
Lec. 3./Online/Credit 3.

The course introduces students to the reading of authentic materials (newspapers, periodicals, extracts of literary texts, media information), and to elements of discussion. Emphasis continues to be on the development of communicative skills.

JAPO 305-306 Advanced Japanese Conversation I-II
Lec. 3./Online/Credit 3.

The course focuses on the development of sophisticated practice of conversation. Students will acquire the necessary terminology to discuss various cultural aspects: society, history, politics, economy and art.

JAPO 320-321 Topics in Japanese Literature/Culture I-II
Lec. 3./Online/Credit 3.

This course exposes students to important issues through the study of the works of important writers through the twentieth century.

JAPO 440 Experiential Learning Lec. 3./Online/Credit 3.
Can include study abroad, domestic or international internships.

MATO (Mathematics – Online)

MATO 100 Elementary Algebra Lec. 3./Online/Credit 3.
For students whose background and placement indicate a need for basic work. This course does not carry credit toward any degree at the University. Concepts to be covered include arithmetic review, linear equations and inequalities, polynomials, rational expressions and graphing. Entry level skills for MATO 109.

MATO 105 Intermediate Algebra Lec. 3./Online/Credit 3.
This course is for students whose background and/or place- ment indicates a need for algebra. It may be taken as an elective course, but will not count towards the mathematical competency requirements. Concepts to be covered include linear equations and inequalities, polynomial and rational expressions, radicals, complex numbers, quadratics and graphing exponential and logarithmic functions. Entry level skills for MATO 117.

MATO 109 College Mathematics I Lec. 3./Online/Credit 3.
Sets and simple logic. Solving linear, rational and quadratic equations, inequalities. Graphing linear equations and inequalities, quadratic equations. Exponential and logarithmic functions. Solving systems of equations. Linear programming. Prerequisite: MAT 1000 or by placement.

MATO 110 College Mathematics II Lec. 3./Online/Credit 3.
Mathematics of finance such as interest, installment buying, mortgage. Measurement, geometry and the metric system. Elementary concepts of probability and statistics. Prerequisite: MATO 109 or by placement.

MATO 117 PreCalculus Mathematics I
Lec. 3./Online/Credit 3.

Equations and inequalities. Function and their inverses. Polynomial functions and theory of equations. Exponential and logarithmic functions. Systems of linear equations: matrices and determinants. Counting principles and Binomial Theorem. Prerequisite: MATO 105 or by placement.

MATO 130 Calculus Lec. 3./Online/Credit 3.
A one-semester hour course for students with an option or a requirement for a course in calculus. Differentiation and integration of algebraic and elementary transcendental functions: applications from business, life and social sciences. Prerequisite: MATO 117 or placement.

MATO 205 Introduction to Statistics
Lec. 3./Online/Credit 3.
Descriptive statistics for ungrouped and grouped data. Concepts of probability. Random variables. Binomial and normal distributions. Sampling distributions. Correlation and regression. Hypothesis testing and estimation. Prerequisite. MATO 109 or above.

MGMO (Management – Online)

MGMO 200 Introduction to Business
Lec. 3./Online/Credit 3.
The role and function of business enterprises within the free economy. Includes organization, financing, marketing, personnel administration, production, insurance, accounting, and management; also includes corporate lectures to help students choose a business specialty.

MGMO 201 Introduction to Management Strategy
Lec. 3./Online/Credit 3.
This course focuses on the nature of the general management function intended to provide an overview of a wide variety of strategic and organizational problems in businesses of all sizes.

MGMO 205 Computer Concepts in Business
Lec. 3./Online/Credit 3.
Introduction to computer use with a concentration in business applications. Concepts presented include hardware and software for the use for the computer. Several common business software packages, such as word processing and database, may be used to demonstrate the practical application of the course concepts.

MGMO 215 Principles of Statistical Analysis
Lec. 3./Online/Credit 3.
Methods of collecting, organizing, presenting, analyzing, and interpreting large masses of quantitative business and economic data. Emphasis is on the application of statistical techniques to decision making. Prerequisite: MATO 130 or higher or permission of instructor.

MGMO 216 Quantitative Methods Lec. 3./Online/Credit 3.
The statistical topics of multiple regression, nonparametric methods, time series, index numbers. and decision theory are covered. In addition, the quantitative techniques of linear programming, transportation and assignment problems, forecasting, inventory models and others are covered. Prerequisite: MGMO 215.

MGMO 240 Introduction to Human Resource Management
Lec. 3./Online/Credit 3.
This course will cover the broad range of topics associated with HR management from the perspective of the HR professional, the manager, and the employee. It will also serve to familiarize students who hope to become managers or team leaders during their careers with some of the issues they will have to deal with, such as staffing, motivating, and developing team members.

MGMO 300 Total Quality Management
Lec. 3./Online/Credit 3.
A survey of the methods used to apply principles of total quality management (TQM) in various organizational settings to improve quality and productivity. Topics include evolution of TQM theory; TQM models, tools and techniques; development of TQM teams; production of graphs and charts; strategies for meeting customer expectations; benchmarking; and comparison of TQM applications. Highlights continuous quality improvement as a way of life in business and organizational systems.

MGMO 301 Business Organization and Management
Lec. 3./Online/Credit 3.
Management and management functions; planning, organizing, staffing, directing, and controlling. Management examined as both a science and an art with emphasis on knowledge and personal abilities to be successful as a manager. Prerequisite: Completion of at least 58 semester hours or Junior standing.

MGMO 305 Business Law I Lec. 3./Online/Credit 3.
Legal environment of business. Topics include courts, constitutional law, criminal law, contracts, agency, consumer law, environmental law, property law, torts, administrative law, and international law. Prerequisite: Junior standing or completion of 58 semester hours and MGMO 301.

MGMO 312 Personnel/Human Resources Management
Lec. 3./Online/Credit 3.
Human relations aspects and organization structure of personnel/human resources management, employee recruitment, selection, placement, development, motivation, evaluation, mobility, and service programs, to include rights of minorities and women. Prerequisite: MGMO 301 and Junior standing.

MGMO 321 Management of International Business
Lec. 3./Online/Credit 3.
Organization, operation, and management of multinational business; emphasis on problems of communication and control with relation to business operations in foreign countries. Prerequisites: MGMO 301, MGMO 305, ECOO 201, and ECOO 202 and the completion of at least 58 semester hours or Junior standing.

MGMO 323 Information/DP Systems Management
Lec. 3./Online/Credit 3.
Introduction to a managerial approach to information systems concepts and applications, to determining information system requirements and to selecting and implementing information systems, which meet the needs of an organization. The course emphasizes how information systems support key business functions, what information resources are available, how managers are involved in system decisionmaking in functional business areas and how information technology supports business strategy. Prerequisite: MGMO 205 or equivalent and Junior standing.

MGMO 330 Management of Small Business
Lec. 3./Credit 3.
Identifies critical problems of small business enterprises. Develops problem solving processes that define and suggest solutions to problems. Special emphasis on management problems of minority business enterprises. Prerequisite: Junior standing.

MGMO 340 Business Communication
Lec. 3./Online/Credit 3.
Correspondence as a function of business. Stresses force and clarity in composing letters, reports, memoranda, advertisements, orders, speeches, and articles that further the general aims of business. Prerequisite: Junior standing.

MGMO 350 Principles of Supervision
Lec. 3./Online/Credit 3.
Diverse area of supervision and management. Course provides an understanding of the modern era of supervision, the fundamental concepts of supervision, managing diversity, the functions and skills of supervisors, and the challenges of leadership and decision making.

MGMO 400 Organizational Behavior
Lec. 3./Online/Credit 3.
Survey of interpersonal relationships in organizational administration. Emphasis on basic behavioral science research as it contributes to understanding an individual, group, and other organizational behavioral phenomena. Prerequisite: Junior standing.

MGMO 402 Production/Operations Management
Lec. 3./Online/Credit 3.
Organization, decision-making, location and processing problems, standards, quality control, purchasing, inventory and production control, product mix, work measurement, and budgetary control in production. Prerequisite: MGMO 215, MGMO 216, and Junior standing.

MGMO 412 Labor-Management Relations
Lec. 3./Online/Credit 3.
Historical background of modern labor problems, growth of trade unionism, union policies and activities, principles and practices of collective bargaining, and the role of government. Prerequisite: MGMO 312 and Junior standing.

MGMO 414 Business Ethics **Lec. 3./Online/Credit 3.**
Business ethics covers the historical and intellectual foundations of ethics and applications to business. The course seeks to heighten the student's awareness of the ethical implications of business decision making. This is accomplished by involving the student in the creative process of developing analytic and reasoning skills for reflective moral decision-making and conduct. Typical content includes: ethical perspectives and their implications; corporate social responsibility; ethical management of work and people; lying and truth telling in business; ethical issues in business accounting, finance, marketing and investment; and conflicts of interest.

MGMO 499 Business Policy and Strategy
Lec. 3./Online/Credit 3.
The application of strategic management concepts in the solution of selected cases in business. Prerequisites: ACCO 203, 204; MGMO 215, 216, 301, 305, 205, 321, 323, 340, 402; ECOO, 201, 202; FINO 304; MKTO 305.

MHAO (Health Administration – Online) – Graduate Only

MHAO 609 Organizational Theory, Behavior and Practice
Lec. 3./Online/Credit 3.
Exploration of concepts and theories of organizational behavior as it relates to health systems. Designing leadership strategies that focus on those components that comprise effective functioning in selected organizations will be studied. Emphasis will be placed on oral, written and interpersonal communication skills. NURO 512Organizational Behavior/Group & Role Theory undergirds content for this course.

MHAO 610 Epidemiology: Principles and Applications
Lec. 3./Online/Credit 3.
Presentation of the principles and concepts in planning for responding to issues facing the public health in the communities. The determinants, risk factors, biostatistics and preventive evaluative measures emphasized and opportunities for field studies will be provided.

MHAO 611 Managed Care and Health Insurance
Lec. 3./Online/Credit 3.
Trends affecting managed care and insurance options will be studied. The risk of not adhering to medical regime and cost of insurances and other options for care will be explored. How do trends in care and cost of insurances and other financial issues affect the services of the underserved are studied.

MHAO 612 Health Policy and Planning
Lec. 3./Online/Credit 3.
Provides a basis for understanding the influence of politics and special interest groups on the operation and effectiveness of health systems. The legislative process and policy making will be emphasized. The process of planning and obtaining approval for health systems in the community will be included. Health policy formulation, implementation, and evaluation will be explored. NURO 713Family Nursing: Planning and Policy Leadership undergirds content for this course.

MHAO 613 Health Finance and Accounting
Lec. 3./Online/Credit 3.
Examines financial operations through theory and techniques of corporate management in health systems. Cash flow, financial accounting, financial analysis and other aspects in managing providers and payers. NURO 648 Financial Management for Nurse Administrators undergirds content for this course.

MHAO 614 Health Law **Lec. 3./Online/Credit 3.**
A focus on the legal and ethical issues associated with the practice of health administration. Case law and analysis will be used in presentation of principles as they apply to the administration of hospitals and health care systems. Bioethical issues and their implications in decision making for care will be emphasized.

MHAO 615 Ethics for Health Care Professionals
Lec. 3./Online/Credit 3.
This course will explore the major schools of thought represented in ethics for health care providers. Theories of moral development, moral reasoning, ethical decision-making, and professional codes of ethics will be presented and applied within case study analysis and discussion.

MHAO 616 Health System Operations: Fiscal Management
Lec. 3./Online/Credit 3.
Provides an overview of early to current American hospitals, Long term care and free standing systems. Specific focus will include governing bodies, organizational structure, services, fiscal aspects, accreditation and license process.

MHAO 617 Strategic Planning Lec. 3./Online/Credit 3.
Organizations of all types must have a process for reviewing goals and focusing on outcomes. Strategic planning is a way to study performance and subsequent outcomes to determine strategies to maintain, improve, or change goals and objectives. The process will focus on superior performance, marketability, and opportunities to be fiscally sound in managing organizations.

MHAO 618 Executive Leadership and Management
Lec. 3./Online/Credit 3.
Explores the development of effective leadership utilizing theoretical principles, models, key concepts of leadership and the effect of human behavior. Analyze the role of healthcare executives in a dynamic health system.

MHAO 619 Health Information Management Systems
Lec. 3./Online/Credit 3.
Focuses on the integration of technology and clinical systems in health care organizations such as electronic health records. Strategic decisions about financial impact, actual cost (budget) and trends, and how information technology improves quality, efficiency and safety of health care.

MHAO 620 Executive Skills Seminar
Sem.1./Online/Credit 1.
An applied seminar which allows students to focus on leadership development and personal effectiveness. Executive leadership and behavior expected of program graduates will be emphasized.

MHAO 621 Health Care Quality and Safety
Lec. 3./Online/Credit 3.
Health care quality and safety has had international impact on the global communities. Understanding the meaning of quality as it relates to safety will be explored for individuals, groups, and communities across racial and ethnic populations. The desired outcomes of indicators of quality also will be explored across the lifespan for the groups studied.

MHAO 622 Health Administration: Practicum I
Lec. 4./Online/Credit 4.
Focuses on the application of concepts from organizational theory, organizational behavior and organizational development as an interconnected domain. Explores alternative approaches in problem solving, personnel issues and operational management of a health facility.

MHAO 623 Health Administration: Practicum II
Lec. 4./Online/Credit 4.
Continues the focus of Health Administration I with the addition of the impact of internal and external stakeholders and other variables affecting decision making.

MHAO 624 Capstone Research Project
Pjt./Online/Credit 3.
Students will complete a scholarly research project that focuses on an identified problem or issue in the healthcare system. It will culminate in a tangible research report suitable for publication. The project will be developed and implemented under the guidance of course faculty.

MHAO 626 Grant Writing Lec. 3./Online/Credit 3.
This class will be structured to foster an interdisciplinary team approach between administrators and nurses in a health care system. Students will register for the course in their discipline. Focuses on the development of grant proposals for government, private and foundation funding. Students will be required to explore funding sources and develop an approach for a proposal to the funding agency. A completed proposal suitable for submission will be required.

MHAO 627 Healthcare System Integration into Disaster Response Lec.3/Online/Credit 3.
This course will explore disaster preparation for healthcare facilities and personnel. The management of a facility response to natural and manmade disasters will include internal facility response and the integration of healthcare resources into comprehensive regional disaster plans.

MHAO 628 Ergonomics Seminar Lec. 3./Online/Credit 3.
The course is designed to introduce students to the application of knowledge about human capacities and limitations to the design of workplaces, jobs, tasks, tools, equipment, and the environment that are potential risk for injuries and illnesses to employees.

MKTO (Marketing – Online)

MKTO 305 Principles of Marketing Lec. 3./Online/Credit 3.
Analysis of the problems involved in the operation of marketing institutions with emphasis on a micro approach. Topics include the design of channels of distribution, pricing, and promotion of goods and services. Prerequisite: ECON 201-202 or the permission of the instructor.

MUSO (Music – Online)

MUSO 200 Introduction to Music Lec. 3./Online/Credit 3.
Survey of musical literature through the ages. Development of music in relation to other arts. Influence of sociological, economic, political, geographical, literary, and other factors upon music-illustrated by musical and artistic examples through recordings and other audiovisual devices.

MUSO 201 Music of African-Americans Lec. 3./Credit 3.
Experience African-American musical developments from the onset of western African music culture, the middle passage to all forms of music in America from the spiritual to current trends in music.

MUSO 202 Music of African-Americans II, History of Jazz
Lec. 3./Credit 3.

In-depth study of jazz from the musical, historical and social points of view. Open to all students.

MUSO 205 History of Music I Lec. 3./Credit 3.

The study of music of non-Western cultures, of plainsong and the emergence of polyphony in the Middle Ages, and of the polyphonic music of the Renaissance with critical analysis of literature.

NURO (Nursing – Online) – Undergraduate Only

NURO 307 Conceptual Approaches to Pathophysiology
Lec.3./Online/Credit 3.

A study of pathophysiology concepts, utilizing a systems approach. Focuses on alterations in adaptive processes which occur during illness throughout the lifespan and which affect the individual's ability to function in society. Prerequisites: For Registered nurse students only.

NURO 308 Introduction to Online Learning
Lec.2./Online/Credit 2.

An introduction to the requirements for successful participation in the RN to BS online curriculum. The course will provide a foundation for the student's academic and professional success as a scholar-practitioner and social change agent. Course activities focus on the practical application of writing and critical-thinking skills and the integration of professional practice with professional and academic excellence as they relate to practice in nursing.

NURO 312 Health Assessment for Registered Nurses
Lec.3./Online/Credit 3.

Study of primary health care concepts as they relate to the biological, psychological, and sociocultural assessment of individuals and families in meeting basic needs of individuals in a multicultural society. Emphasis is placed on techniques of data collection through health histories and physical examinations for the establishment of a database for the nursing process. Prerequisite: For Registered nurse students only.

NURO 315 Transition Theory Lec. 2./Online/Credit 2.

The study of concepts and theories related to the individual as an open system with bio-psycho-socio-cultural and political needs along the wellness-illness continuum. Utilization of the nursing process in the application of concepts related to pathophysiology, growth and development, epidemiology, chemotherapeutics, research, teaching-learning, communication and physical assessment and their relationship to meeting the basic needs of individuals and families. Study of the past, present and emerging role of the nurse and its relationship to social changes affecting the nursing profession. Exploration and application of concepts and theories of the philosophy and conceptual framework of the baccalaureate curriculum and professional nursing practice. Focus on meeting the basic health needs of persons with simple and complex medical-surgical interferences, common maladjustments during the childbearing and childrearing stages and psychopathological deficits. Prerequisite: State licensure to practice professional nursing (RN). Corequisite: NUR 316. For Registered nurse students only.

NURO 316 Transition Theory Practicum
Lec. 2./Credit 2./Online/Lab

Clinical application of concepts and theories of the philosophy and conceptual framework of the baccalaureate-nursing curriculum. Utilization of the nursing, teaching learning and research processes. Validation of entry-level skills and competencies of registered nurses in a variety of clinical settings. Prerequisite: State licensure to practice professional nursing (RN). Corequisite: NUR 315. For Registered nurse students only.

NURO 328 Nursing Informatics Lec. 3./Online/Credit 3.

Examine the critical appraisal and use of information technology in nursing practice in various healthcare settings. Students learn about core and supporting models and theories for nursing informatics as well as its foundation in science. They explore the use of information technology to support decisions that promote safety and quality in patient-centered care, and they assess concerns about protecting information and system integrity. Students engage in practical assignments through which they become familiar with various informatics-related functions and their impact on nurses in healthcare. They also summarize and reflect on their learning experiences. Prerequisites: For Registered nurse students only.

NURO 400 Major Health Issues and Problems of the Elderly Lec.3./Online/Credit 3.

Study of normal processes of aging. Exploration of major health problems. Discussion of communication techniques and approaches to promoting independence. Interaction with noninstitutionalized elderly. Nursing Elective. Open to all majors.

NURO 415 Community Health Nursing
Lec. 3./Online/Credit 3.

Major focus is on the nursing process in the community health care service. The concept of prevention of illness and maintenance of health on the wellness-illness continuum is stressed. Communication skills for use in collaborative relationships with individuals, families, other health team members, and groups are expanded. Major emphasis is on health teaching, counseling, and the expanded nursing role within the community for meeting basic needs of clients. Corequisite: NURO 417. For Registered nurse students only. For majors only.

NURO 417 Community Health Nursing Practicum
Lec. 3./Credit 3./Lab 9.

Major focus is on the nursing process in the community health care system. The concept of prevention of illness and maintenance of health on the wellness-illness continuum is applied. Use of communication skills in collaborative relationships with individuals, families, other team members, and groups is expanded. Students use health teaching and counseling skills while implementing an expanded nursing role within the community to meet basic needs of clients. Corequisite: NURO 415. For Registered nurse students only. For majors only.

NURO 418 Issues in Research Seminar
Lec. 2./Online/Credit 2.
Students will critique research in terms of its implications for nursing practice and health care policy. Opportunities will be provided to discuss ways to implement research findings in practice settings. A senior research project and paper will be required. Prerequisite: PSYO 346 or MATO 205 for registered nurse students. For majors only.

NURO 423 Nursing Leadership and Management for the Registered Nurse Lec. 4./Online/Credit 4.
Investigation and analysis of trends and issues in the delivery of health care to meet the basic needs of individuals, families, groups, and communities. Theories and concepts of leadership and management are assessed while viewing organizations as social systems. Roles of the nurse are explored in the context of education, service, research, and practice. The nursing process and problem-solving techniques are utilized to resolve situational problems. Prerequisites: Must be taken concurrently with NURO 424. For Registered nurse students only.

NURO 424 Nursing Leadership and Management for the Registered Nurse: Practicum
Lec. 4./Credit 4./Online/Lab12.
Application of theories and concepts of leadership and management within a social system. Facilitate group work while understanding the theory underlying the action taken. Application of problem solving techniques as an integrative approach to conflict resolution and decision-making. Must be taken concurrently with NURO 423. For Registered nurse students only.

NURO 428 Transcultural Nursing Lec. 3./Online/Credit 3.
An introduction to the theory of transcultural nursing, this course is designed to assist nursing students in learning about culture, belief systems, values, and practices that are specific to identified cultures, in order to better understand and provide nursing care that is both culturally competent and culturally sensitive in nature. This course will provide the nurse with the foundation to provide culturally congruent care. Course activities will explore the evolution and current best practice in transcultural nursing. Prerequisite: For Registered nurse students only.

NURO (Nursing – Online) Doctoral Only

NURO 704 Intro to Online Learning and Scientific Writing
Lec. 2/Credit 2.
In introduction to the requirements for successful participation in the graduate-level online programs. The course will provide a foundation for the student's academic and professional success as a nursing scholar. Course activities focus on the practical application of the online learning environment and writing for nursing science. Emphasis will be on the use of technologies and the American Psychological Association (APA) guidelines.

NURO 710 Family/Family Related Research: Historical and Cultural Perspectives
Lec. 3./Online/Credit 3.
This course focuses on the history of family nursing practice and provides opportunities for an exploration of the influence of culture on family health-related behaviors. Emphasis is placed on the exploration of the contributions of the evolution of nursing practice to the health of families. Students will explore the development of family nursing theory by means of culturally appropriate nursing research methods. Researchable questions emerging from family nursing practice will be identified. Course emphasis will be on minority families.

NURO 711 Family/Family Related Research: Philosophical, Conceptual and Theoretical Perspective
Lec. 3./Online/Credit 3.
This course focuses on the contemporary philosophical, conceptual, and theoretical perspective that undergird family nursing research. Emphasis is placed on exploration of the impact of contemporary philosophies of science and nursing science, conceptual models of nursing, and nursing theories on the design and conduct of family nursing research.

NURO 712 Family/Family Related Research: Theory & Concept Analysis Lec. 3./Online/Credit 3.
This course considers contemporary nursing research as it pertains to the current state of the art and directions for future study. Discussions will include advanced analysis of methodology, assumptions, and theoretical structures that underpin the work. Culturally appropriate methods will be emphasized.

NURO 713 Family/Family Related Research: Leadership, Policy and Ethics Lec. 3./Online/Credit 3.
A critical examination of the role of nursing leadership is presented in light of current healthcare issues. Among the topics to be considered are demographic distributors of nursing services, legislative and legal forces as they affect the professions, nursing organization as a power for change, educational preparation for practice, and systems of accountability.

NURO 714 Quantitative Methods I
Lec. 3./Online/Credit 3.
This course focuses on the design of descriptive and correlational family-related and family nursing research. Emphasis is placed on the collection and statistical analysis of quantitative data and use of statistical software.

NURO 715 Quantitative Methods II
Lec. 3./Online/Credit 3.
This course focuses on the design of experimental family-related and family nursing research. Emphasis is placed on the collection and statistical analysis of quantitative data and the use of statistical software.

NURO 716 Qualitative Methods I Lec. 3./Online/Credit 3.
This course focuses on interpretative methods of family nursing research. Emphasis is placed on the collection and analysis of qualitative data by using a case study, survey, phenomenologic, grounded theory; and ethnographic, and historical methods of inquiry.

NURO 717 Family/Family Related Research: Instrument Development Lec. 3./Online/Credit 3.
This course focuses on the design and psychometric testing of culturally-sensitive instruments. Emphasis is placed on methods used to determine the validity and reliability of instruments to measure family-related and family nursing phenomena.

NURO 718 Analysis and Evaluation of Theory Generating and Theory Testing Research Lec. 3./Online/Credit 3.
This course focuses on the analysis and evaluation of family-related and family nursing research designed to generate or test theories. Emphasis is placed on identification of the conceptual-theoretical-empirical structures for minority family-related and family nursing research.

NURO 719 Qualitative Methods II Lec. 3./Online/Credit 3.
This course addresses the skills and knowledge needed for the completion of qualitative research for the dissertation and includes the research design, data analysis and representation, methods for increasing trustworthiness, and ethical considerations in research with human subjects. Emphasis is placed on the collection and strategies of analysis of qualitative data and the use of statistical software.

NURO 720 Dissemination and Utilization of Family Nursing Research Lec. 3./Online/Credit 3.
This course focuses on the theoretical and practical aspects of disseminating and utilizing the findings of family-related and family nursing research. Emphasis is placed on the leadership role of doctorally-prepared nurse researchers in developing and applying theories of research dissemination and utilization. This is a Nursing Cognate course.

NURO 721 Vulnerable Populations: A Family Perspective Lec. 3./Online/Credit 3.
This course focuses on the phenomenon of vulnerability among families throughout the world. Emphasis is placed on family coping strategies and includes an analysis of family risk factors and resilience in health and illness. An interdisciplinary course. This is a Nursing Cognate course.

NURO 722 Special Topics in Family Nursing Lec. 3./Online/Credit 3.
A seminar focusing on a variety of topics related to the advancement of knowledge in family nursing science. Topics arranged through student and faculty esearch interests. This is a Nursing Cognate course.

NURO 723 Family Research Lec. 3./Online/Credit 3.
This course will include an analysis of nursing and other theories in relationship to research of families. Methodological issues related to research of families will be discussed, as will the analysis of family data and measurement issues common to research of families. The seminar will conclude with an agenda for future directions in research of families. This is a Nursing Cognate course.

NURO 724 Special Topics in Family Research and Family Development Theory Lec. 3./Online/Credit 3.
This course offers a critical review of theory and research literature on family systems, analysis of methods and instruments, and consideration of the specific projects of invited family researchers. This is a Nursing Cognate course.

NURO 725 Grantsmanship and Publication Lec. 3./Online/Credit 3.
This course engages students in writing experiences, which prepare the learner for manuscript and grant proposal submissions. Students will explore the introductory concepts of writing research, training, and demonstration grants to include potential funding sources, proposals (manuscript), and development of research prospectus. A completed grant proposal suitable for submission is required of all enrollees.

NURO 726 Creating the Future of Nursing Education Lec. 3./Credit 3.
This course will focus on the policies and forces affecting organization and governance in nursing education. The role of the nurse leader in creating an environment which promotes academic excellence will be investigated. Current issues affecting higher education will also be addressed.

NURO 727 Learning Theories and Educational Philosophy Lec. 3./Credit 3.
This course will focus on knowledge and application of educational frameworks and theories and learning theories. The relationship between nursing theory and educational theory in designing nursing education programs, teaching practices and educational policies is explored. Methods for testing educational theories will be evaluated.

NURO 728 Assessment, Evaluation and Accreditation in Nursing Education Lec. 3./Credit 3.
This course will focus on knowledge and application of measurement principles and practices for assessing learning outcomes and evaluating research in nursing education. The current state of evaluation in nursing education will also be explored. Students will analyze, synthesize and propose research on assessment, evaluation and accreditation in nursing education.

NURO 729 Teaching Strategies for Nursing Educators Lec. 3./Credit 3.
This course will focus on new and emerging challenges in nursing education. Students will examine clinical teaching modes, advances in technology, effective methods for incorporating current technologies into teaching and online and distance learning.

NURO 730 Organization and Governance in Higher Education Lec. 3./Online/Credit 3.
Focus on the administration of institutions of higher learning. Emphasis will be placed on higher education structure and characteristics, intra-institutional and extra-institutional forces affecting the governance of higher education, power delineations and struggles, and principles of problem solving.

NURO 731 Curriculum Development in Nursing Education Lec. 3./Online/Credit 3.
Designed to provide students with an in-depth study of the principles, theories, and models of curriculum development related to nursing education. Emphasis will be placed on program planning and evaluation of baccalaureate and higher degree programs.

NURO 732 Seminar in Higher Education Policy, Planning, and Leadership Lec. 3./Online/Credit 3.
A critical examination of the role of leadership in higher education and nursing education is explored, including an in-depth analysis or policies. Students will plan ideal nurse education programs in conjunction with a national network of nursing education mentors. Students will also contract for independent assignments related to their career goals.

NURO 733 Advanced Internship in Nursing Education Lec.3./Online/Credit 3.
A mentored teaching experience in a baccalaureate or higher degree nursing program appropriate to the student's planned career goals. The internship will focus on the use of innovative teaching-learning strategies and multimedia technology approaches; provides the opportunity for students to pursue an area of skill development under the guidance of master teachers. One hour of didactic mentoring and 2 credit hours (6 contact hours) of teaching activities per week.

NURO 799 Independent Study in Nursing Credit 1 – 6.
Independent study as directed by doctoral nursing faculty. The pursuit of an individual research project. Student contracts for one to six semester hours. May use as 3 credits of cognate only.

NURO 800 Ph.D. Comprehensive Examination Credit 0.
The student focus for the comprehensive examination is to demonstrate an understanding of knowledge in relevant, related fields of study, which undergirds the dissertation research. Students will develop a draft dissertation proposal in preparation for enrollment in NURO 801 - Dissertation Research I. The comprehensive examination must be completed before enrollment in NURO 801-Dissertation Research I. Students may enroll in this course for a maximum of two times. Grade = S/U

NURO 801 Dissertation Research I Sem. 4./Online/Credit 4.
This course focuses on the development of the dissertation research proposal. The focus includes a focus on the research problem, purpose, background, significance, theoretical framework and literature review. Emphasis is placed on the elements of integrative reviews of theoretical literature and outlining the conceptual-theoretical-empirical structure for the research. Students will complete a refined first two chapters at the end of the session for submission to the dissertation chair/committee. Students may enroll in this course for a maximum of three times. The Department of Graduate Nursing Education must approve extensions of exceptional circumstances. Grade = S/U.

NURO 802 Dissertation Research II Sem. 4./Online/Credit 4.
This course focuses on the continued development of the research methodology (Chapter III), dissertation chair/committee approval, and progression to IRB submission of the dissertation research proposal. Emphasis will be placed on refinement of the conceptual-theoretical-empirical structure, current literature review, and the methodology for the proposed research. Students are expected to progress through the IRB process after proposal approval by the dissertation committee and school dean. Data collection begins upon approval by IRB. Students may enroll in this course for a maximum of three times. Extensions of exceptional circumstances must be approved by the Department of Graduate Nursing Education. Grade = S/U.

NURO 803 Dissertation Research III Sem. 4./Online/Credit 4.
The dissertation constitutes the final phase of the program. The preparation of the dissertation should begin early in the program and evolve from a study of family or family-related issues. Students will complete data collection, conduct data analysis, develop Chapter IV (Results), Chapter V (Discussion), and assemble the complete dissertation manuscript in preparation for review by the dissertation chair/committee. Students may enroll in this course for a maximum of three times. Extensions of exceptional circumstances must be approved by the Department of Graduate Nursing Education. Grade = S/U.

NURO 804 Dissertation Research IV Sem. 4./Online/Credit 4.
This course focuses on the continued preparation of the dissertation manuscript. Students will continue to complete Chapter IV (Results), Chapter V (Discussion), and assemble the complete dissertation manuscript in preparation for review by the dissertation chair/committee and Department Chair/School Dean. Students will address comments/corrections rendered during the reviews by the dissertation chair/committee and Department Chair/School Dean. Students may enroll in this course for a maximum of three times. Extensions for exceptional circumstances must be approved by the Department of Graduate Nursing Education. Grade = S/U.

NURO 805 Dissertation Defense Credit 0.
Students will present and defend their dissertation and finalize their dissertation manuscript for publication. The dissertation committee and school dean must approve the dissertation before a Request to Defend form can be submitted to the Graduate College. Students will present and defend the dissertation to, at a minimum, the dissertation committee and a representative of the Graduate College. After addressing comments/corrections resulting from the dissertation defense, the student will finalize the document for submission to the Graduate College. Grade = S/U.

PDMO (Public Administration – Online)

PDMO 101 Introduction to Law Enforcement
Lec. 3./Credit 3.
Introduces the history and philosophy of law enforcement agencies which involves the administration of criminal justice; processes of justice from detection of crime, parole of offenders, evaluative procedures of current police services, and discussion on career opportunities in police science.

PDMO 102 Administration of Justice Lec. 3./Credit 3.
Universal legal principles, federal, state and local statutes and ordinances, and the role of the various levels of government in administering them.

PDMO 103 Introduction to Criminal Law Lec. 3./Credit 3.
Elements of criminal law with definitions and general penalties, laws of arrest, search and seizure, rights and duties of officers and citizens.

PDMO 105 Crime Prevention and Delinquency Control
Lec. 3./Credit 3.
Planning and administration of crime prevention methods; techniques of handling juvenile offenders and victims, prevention and repression of delinquency, diagnosis and referral, organization of community resources, juvenile law and juvenile court. Prerequisites: PDMN 101, 102, 103.

PDMO 200 Police Organization and Administration
Lec. 3./Credit 3.
The organization and administration of line, staff and auxiliary functions. A comprehensive examination of current commandlevel problems and trends in law enforcement organization and management. This includes the formulation of policy and procedure, rules and regulations, development, implementation of procedural and tactical planning and control of activity.

PDMO 201 Contemporary Corrections Lec. 3./Credit 3.
A study of the development of penal philosophies from revenge to rehabilitation. The structure of the American correctional system including probation, institutionalization and parole with consideration of current alternatives to incarceration.

PDMO 202 Law Enforcement-Community Lec. 3./Credit 3.
An examination of factors contributing to cooperation or friction between law enforcement personnel and the community, with emphasis on minority groups, political pressures and cultural problems. Citizen involvement in the criminal justice process, community organization and the social responsibility of law enforcement are examined.

PDMO 203 Juvenile Delinquency/Justice Lec. 3./Credit 3.
Juvenile delinquency in relation to the general problem of crime. Analysis of factors underlying juvenile delinquency, treatment and prevention. The adjudication process for juveniles-philosophy and practice. Prerequisite: PDMN 101.

PDMO 204 Criminal Investigation Lec. 3./Credit 3.
Fundamentals investigation, techniques of crime scene recording and search, collection and preservation of physical evidence, modus operandi processes, interview and interrogation, procedures and techniques of investigation of specific crimes, laws affecting law enforcement regarding gathering of evidence, actual crime scene investigation, including autopsy laboratory work. Prerequisites: PDMN 101, 102, 103.

PDMO 205 Drugs, Society, and Human Behavior
Lec. 3./Credit 3.
Various phases of the problems created by narcotics and dangerous drugs. Emphasis is placed upon consideration of why people take drugs, the characteristics of narcotic and dangerous. drugs. Special emphasis is placed upon the efforts of local, state, national and international effort to control dangerous drugs.

PDMO 206 The Police and the Community Lec. 3./Credit 3.
An examination of the merging role of the modern police officer with emphasis on community relations programs, and the police role in the development of support for the criminal justice system.

PDMO 207 Security Concepts Lec. 3./Credit 3.
The historical, philosophical, and legal basis of security. Security as a major factor in criminal justice for the prevention of crime. The relationship between security and public law enforcement. Prerequisite: PDMN 101.

PDMO 208 Criminal Procedure and Evidence
Lec. 3./Credit 3.
Constitutional and procedural considerations affecting arrests, search and seizure, A study of Supreme Court cases relative to the fourth, fifth, sixth, and fourteenth amendments which specifies dealing with law enforcement officers, investigative and police powers and limitations in connection with obtaining evidence, and confessions. Also, making searches, seizures, and arrests. Prerequisite: PDMN 101.

PDMO 209 Seminar in Police Problems Lec. 3./Credit 3.
Emphasis will be placed upon research, writing and discussion of selected subject areas, analysis of contemporary problems. Rural versus urban problems and counter terrorism.

PDMO 211 Public Administration Lec. 3./Credit 3.
A survey of the principles and problems of modern governmental administration. This course concentrates on the theory of administration; the making and execution of public policy; relationships among the executive, legislative, bureaucracy, and public; structure and functions of sound administrative organization.

PEDO (Physical Education – Online)

PEDO 105 Physical Fitness Concepts
Lec. 2./Online/Credit 2.
This course is designed to acquaint the student with basic knowledge and understanding of concepts associated with physical fitness and activity as they relate to optimal healthful living. Laboratory experiences involving participation in and assessment of physical fitness levels, principles of physical fitness, cardiovascular endurance, strength training, and flexibility programs are emphasized.

PHIO (Philosophy – Online)

PHIO 203-204 History of Western Philosophy I & II
Lec. 3./Online/Credit 3.
A systematic treatment of principal philosophical ideas and movements in western thinking from ancient Greece to the Renaissance. Survey of the thought involved in the rise of modern science through existentialism and the contemporary period.

PHIO 210 Logic and Scientific Method
Lec. 3./Online/Credit 3.
Study of both traditional logic and modern developments with particular stress upon their applications in area of communication and in natural and social sciences.

PHIO 301 Contemporary Moral Problems Online/Credit 3.
This course focuses on developing the student's ability to engage in principled moral reasoning through an examination of classical and contemporary texts on ethics and discussions of particular moral dilemmas. Topics will be drawn from both the public and private sectors, including abortion, sexual harassment, distributive justice, capital punishment, and affirmative action.

PHIO 304 Contemporary Ethical Problems: Ethics in America Lec. 3./Online/Credit 3.
Course examines the historical and philosophical development of, ethics with particular attention to the moral implications of contemporary ethical problems. Emphasis on the process of decision-making as it relates to the question.

PHIO 305 Ethics and Leadership Online/Credit 3.
Examines the historic development and intellectual foundations of ethics with particular attention to the moral implications of contemporary ethical problems. Emphasis is placed on the process of decision.

PLSO (Paralegal Studies – Online)

PLSO 125 Law in Society Lec. 3./Online/Credit 3.
An overview of the major principles and functions of our legal system, this course introduces the student to various legal fields and special topics. Legal aspects of current topics are discussed to assist students in acquiring an appreciation of the dynamic role of law in our changing society.

PLSO 126 Legal Research Lec. 3./Online/Credit 3.
This course will examine in depth the law library, survey the various reference sources available to lawyers in determining applicable law, and discusses isolating legal issues and developing a research strategy.

PLSO 127 Legal Writing Lec. 3./Online/Credit 3.
The course provides writing practice, feedback and guidelines for professional reporting and editing. Communication skills, including clear writing, using appropriate and persuasive vocabulary, and understanding legal writing formats.

PLSO 150 Torts and Personal Injury
Lec. 3./Online/ Credit 3.
This course examines personal injury law, intentional injury and injuries resulting from negligence. Focus is placed upon the nature of personal injury litigation, drafting and general handling, assessment of evidence, establishment of damage claims and claims settlement. Medical malpractice is also examined.

PLSO 305 Law Office Management
Lec. 3./Online/Credit 3.
Approaches to the organization and efficient operation of the law office, management problems in the law office, office structures and systems, accounting and billing procedures, hiring, scheduling, and management of non-attorney personnel, information storage and retrieval systems, form of the law office library, purchasing of law office supplies, client relations.

PLSO 306 Contemporary Legal Ethics
Lec. 3./Online/Credit 3.
Students learn the rules of ethics, professional responsibilities and conduct developed by the American Bar Association, the standards of professional responsibility and code of ethics set by NALA and NFPA for paralegals. Conflict of interest rules, analysis of UPL (unauthorized practice of law), and the ABA guidelines for the utilization of legal assistant services will also be discussed in relation to the ethical issues and dilemmas faced by paralegals working in traditional legal placements, in law firms and corporations, as well as paralegals working as freelance or independent paralegals.

PLSO 310 Real Estate Lec. 3./Online/Credit 3.
The basic laws relating to property and the common types of real estate transactions and conveyances are the primary topics treated in this course. Various instruments such as deeds, contracts, leases, deeds of trust, etc. are studied with emphasis on how these instruments are drafted. Study activities include research projects relating to the subject matter and practice in retrieving and recording information.

PLSO 320 Litigation and Trial Practices
Lec. 3./Online/Credit 3.
This course includes an analysis and discussion of the following: Common types of litigation, premises of litigation, sources of law, the court system, attorneys, types of lawsuits, usual defenses, discovering procedures, court procedures, trial and post-trial motion procedures. appeal enforcement of judgment, and various types of litigation. Particular attention is given to the roll of the paralegal in assisting the attorney in these matters.

PLSO 350 Business Organizations Lec. 3./Online/Credit 3.
The study of the legal organization of business entities is the primary focus of this course. Emphasis is on the role of the lawyer and the paralegal in the formation of various business organizations. This includes a survey of the fundamental principles of law applicable to each type of business organization and preparation of the related documents.

PLSO 360 Criminal Law Lec. 3./Online/Credit 3.
This course is designed to acquaint the paralegal with the criminal justice system and provide a basic understanding of criminal law. Classroom work includes the preparation of search warrants, complaints, motions, information, and indictments. The fundamentals of interviewing and investigating crimes is also discussed. Field experience during this course may be required if appropriate arrangements can be made with the Criminal Court System.

PLSO 370 Domestic Relations Lec. 3./Online/Credit 3.
This course is designed to acquaint the paralegal with the legal problems involved in the area of domestic relations. The course covers the legal problems involved in separation, divorce, child custody, adoption, and non-support. Students draft pleadings in domestic relations cases as well as study the law regarding the particular area in which they are working. Students interview clients and draft actual pleadings under the supervision of their teacher. All work is closely supervised.

PLSO 401 Internship Lec. 3./Online/Credit 3.
The internship requirement for the paralegal studies program combines the student's academic training with practical experiences within a law firm, corporation, bank, governmental agency, real estate office or any large business with an in-house legal staff. The student's internship tutor (instructor) will meet with the student to outline the requirements of a research project designed to provide the intern with hands-on experience required at the end of the internship session. Student will meet with internship tutor as often as necessary throughout the internship.

PLSO 405 Wills, Trusts and Estates Lec. 3./Online/Credit 3.
This course will cover the requirements, formalities, drafting and execution of wills and trust, probating wills, intestacy law and administration of wills and estates.

PLSO 410 Constitutional Law Lec. 3./Online/Credit 3.
An examination of the American constitutional system. Principles and practices of judicial review and interpretation in constitutional cases are studies and particular reference to the decisions of the United States Supreme Court. There is an examination of selected Congressional Powers, the authority of the President, and constitutional limitations on the exercise of governmental Powers and the distribution of power between federal and state governments. The course also focuses on the guarantees of individual rights, with coverage of freedom of expression, religious liberty, due process and equal protection of the laws.

PLSO 412 Introduction to Administrative Law
Lec. 3./Credit 3.
The theory and mechanics of the administrative process including: the Constitutionally mandated structure of the government and the differences among formal adjudication. How to evaluate the work of the executive and regulatory agencies and how the agencies' work meshes with and is influenced by the work of the legislature and the courts.

PLSO 413 Debtor/Creditor Relations Lec. 3./Credit 3.
Use and application of legal rules and procedures under the Uniform Commercial Code as it relates to security interest, liens, financing statements and related debtor creditor's rights remedies and protection. Debt collection and creditors' rights are explored.

PLSO 414 Bankruptcy Lec. 3./Credit 3.
An introduction to the study of the Federal Bankruptcy Code. Emphasis will be on personal bankruptcy, particularly Chapter 7 and 13 of the Code. Students will learn how to prepare petition, as well as, the various steps in the proceeding.

POLO (Political Science – Online)

POLO 201 Introduction to Political Science
Lec. 3./Online/Credit 3.
Critical examination of nature of politics, subject matters, basic concepts, approaches, problems, and research methods.

POLO 202 Introduction to Political Theory Lec. 3./Credit 3.
The major philosophers in the Western tradition from Plato to Marx will be examined and compared to selected thinkers from non-western traditions in order to better understand the relationship between wisdom, knowledge and power.

POLO 203 American National Politics Lec. 3./Credit 3.
Study of ideas and realities of American democracy. Topics include constitutional principles, organization and function of national government, and the roles of political parties, pressure groups, and public opinion in the politics

POLO 204 State and Local Politics Lec. 3./Credit 3.
Structure, powers, functions and problems of state and local governments and their role in the federal system.

POLO 205 Government and Politics in Europe
Lec. 3./Online/Credit 3.
Comparative analysis of political systems of Britain, France, Germany the Soviet Union, focusing primarily upon the differences and similarities in political ideologies, political cultures and political institutions.

POLO 304 International Politics Lec. 3./Online/Credit 3.
Study of the nation of international society, patterns of conflict, and cooperation between and among states and other international actors. Foreign policies of major countries discussed.

POLO 305 Introduction to Political Economy
Lec. 3./Online/Credit 3.
An analysis of the interaction between political and economic institutions in capitalist, socialist, and Third world nations.

POLO 307 Contemporary Issues in International Politics Lec. 3./Online/Credit 3.
Analysis of important contemporary international issues. Special attention to factors influencing a nation's foreign policy. Emphasis on case studies.

POLO 308 Urban Politics Lec. 3./Credit 3.
Examination of political patterns, political processes, and political conflicts in metropolitan area. Interrelationship between urban growth and change in political institutions, political processes, and solutions to problems of large cities.

POLO 310 Politics of the Third World Lec. 3./Online/Credit 3.
Dynamics of modernization and political development in nonWestern countries. Impact of industrialization on political process, political instability, and conflict between traditionalism and modernism.

POLO 311 African Political Theory Lec. 3./Credit 3.
An historical survey using a Pan-African perspective to examine selected ideas of Africans, as well as prominent African Americans and Afro Caribbeans who have influenced the shape of modern African political thought.

POLO 317 Feminist Political Theory Lec. 3./Credit 3.
Examines the roots of feminist thought and womanism from a non-western and western perspective. The course explores the dynamics of the feminist movement, particularly its implications for women of color.

POLO 320 Women and Politics Lec. 3./Credit 3.
Examines the implications of race, gender and class on the political status of women, nationally and internationally. Particular attention is given to the impact of the women's movement on the status of women.

POLO 341 Afro-American Politics Lec. 3./Credit 3.
An examination of black political movements; participation of blacks in the American electoral process; the power structure in black communities.

POLO 405 International Law Lec. 3./Online/Credit 3.
This course focuses on contemporary legal issues in the international arena, key principles, the role of conventions and treaties as international instruments of law, and the policies of nation-states on specific subjects of interest related to international law. Foremost in importance is the aim to enable students to analyze basic premises and principles of international law and to develop an awareness of the major international legal problems.

POLO 406 International Organizations Lec. 3./Online/Credit 3.
This course examines the development and administration of both governmental and non-governmental international organizations such as United Nations, The World Trade Organization, The International Monetary Fund and the World Bank, the European Union, The African Union, Mercosur, NATO, International Criminal Court and the North American Free Trade Agreement among others. It will provide knowledge of the main theoretical approaches used to understand international organizations and their functions and will look closely at many of these organizations through the study of their institutions, policies, intervention in crises and recent key leadership.

POLO 408 Public Policy Lec. 3./Online/Credit 3.
A study of how government perceives public issues, processes them and executes public policies. Various decision-making theories will be examined. Emphasis on case studies.

POLO 409 Race and Public Policy Lec. 3./Credit 3.
A study of the policy making process and how race impacts the various factors that influence policy choices in the American government

POLO 499 Special Topics Lec. 3./Credit 3.
Special topics in political science. May be taken more than once as the topic of the course changes.

PSAO (Public Safety Administration – Online)

PSAO 300 Information Technology for Fire and Emergency Service Lec. 3./Credit 3.
Communications systems used in fire and emergency services such as high frequency voice/data, Internets and Intranets, satellite communications, GPS, and GIS will be the focus of this course. An introduction, examination, equipment assessment, implementation program, and maintenance management module will be provided for each system covered.

PSAO 302 Project Management Lec. 3./Credit 3.
This course addresses basic concepts in project management, emphasizing a balance between the technical aspects of project work. Topics include the emerging importance of project management, tools and techniques to plan and schedule projects, the manager's role in coordinating projects, and how managers need to be aware of cultural influences.

PSAO 401 Public Safety Capstone Lec. 3./Credit 3.
This course is a capstone experience that provides a structured way to organize facts, information, and ideas from the academic major. Theoretical concepts from the major will be discussed by critically analyzing and evaluating ideas relating to a practical application process. Concepts of faith, belief system, or set of values, examine moral and ethical issues, including responsibility to individuals and the communities are examined.

PSYO (Psychology – Online)

PSYO 203 Introduction to Psychology
Lec. 3./Online/Credit 3.
Basic topics in psychology are explored, such as learning, motivation, intelligence, personality, perception, abnormality, and others. Emphasis is given to scientific methodology and its application to behavior.

PSYO 205 Social Psychology Lec. 3./Online/Credit 3.
Survey of traditional and contemporary topics with an emphasis on theory and methods of social psychology. Prerequisite: PSYO 203.

PSYO 208 Methods of Psychology Lec. 3./Online/Credit 3.
Introductory course in the experimental analysis of behavior. In-depth coverage of the logic of scientific investigation. Prerequisite: PSY 203.

PSYO 300 Abnormal Psychology Lec. 3./Credit 3.
Study of major categories of psychological disturbance, their origin and development. Consideration given to diagnosis and therapeutic techniques. Prerequisite: PSYO 203.

PSYO 301 Systems of Psychology Lec. 3./Credit 3.
Historical investigation and critical evaluation of the major systems and theories of psychology. Open to majors only.

PSYO 302 Theories of Personality Lec. 3./Credit 3.
A critical examination of major theoretical approaches to understanding personality, including psychoanalytic, cognitive, and humanistic perspectives. Prerequisite: PSYO 203.

PSYO 304 Motivation Lec. 3./Credit 3.
A survey of the major theories of human and/or animal motivation. Prerequisite: PSYO 203, 208.

PSYO 305 Learning and Memory Lec. 3./Credit 3.
Study of classical and operant conditioning, verbal and motor learning, forgetting and transfer. Prerequisite: PSYO 203, 208.

PSYO 306 Perception Lec. 3./Credit 3.
An analysis of historical, theoretical, psychological, social, and genetic factors involved in sensory and perceptual process. Prerequisites: PSYO 208; BIO 103.

PSYO 308 Physiological Psychology Lec. 3./Credit 3.
The study of the biological basis of behavior. Topics covered include the anatomy of the nervous system, neural transmission, psychopharmacology, sleep, stress, emotion and psychological disorders and their biological treatments. Prerequisites: PSY 203 and 208; BIO 103 or higher.

PSYO 311 Human Growth and Development
Lec. 3./Online/Credit 3.
Basic process of biological and psychological development. Theory and research concerning child development through adolescence. Prerequisite: PSYO 203.

PSYO 346 Statistics I Introduction to Statistical Methods
Lec. 3./Online/Credit 3.
Use of statistics in the social sciences. Descriptive and correlational statistics. Taken simultaneously in sequence with Methods of Psychology PSYO 208. Prerequisite: MATO 109.

PSYO 401 Industrial and Organizational Psychology
Lec. 3./Online/Credit 3.
An introduction to the study of human behavior in the work environment, with emphasis on social and interpersonal context. Prerequisite: PSYO 205.

PSYO 402 Black Psychology Lec. 3./Credit 3.
Survey course addressing the evaluation of psychology for AfricanAmericans from an Afrocentric perspective. Prerequisite: PSY 203 or permission of instructor.

PSYO 404 Topics in Psychology Lec. 3./Credit 3.
An intense investigation of topics of current interest and importance. Topics vary by semester and section numbers indicate the specific title and focus of each course. Topics include Black Child Development (PSYO 404-01 Fall Semester), Psychology of Marriage and Family Systems (PSYO 404-01 Spring Semester), Forensic Psychology (PSY 404-04), Psychology of Advertising (PSY404-06), Psychology of Parenting (PSY 404-12), Black Marital Relationships (PSY 404-13), Intimate Relationships (PSY 404-15), Sports Psychology (PSY 404-17) and Psychology of Spirituality and Religion (PSY 404-19).

RELO (Religion – Online)

RELO 104 Fundamentals of Public Speaking (Homiletics)
Lec. 3./Online/Credit 3.
Training in fundamentals of good speech with the aim of establishing pleasing and appropriate habits of speech. Instruction in rhetorical theory with emphasis upon research, organization of materials and the oral language, primarily as used in a teaching/ preaching application. Online students make extensive use of student audiotape /videotape presentations. This course will be taken in lieu of COMO 103.

RELO 111 Old Testament I Lec. 3./Online/Credit 3.
A general introduction to all the books of the Old Testament, their cultural background, and the context from which they emerged.

RELO 112 Old Testament II Lec. 3./Online/Credit 3.
An in-depth study of the literature and religion of ancient Israel in light of archaeological discoveries, research about the ancient Near East, and a variety of interpretations.

RELO 201 The Prophetic Books (Major and Minor Prophets) Lec. 3./Online/Credits 3.
A study of the writing prophets including an introduction to the origin and development of prophecy among the Hebrews, a study of the prophets themselves, and a thorough investigation of their message.

RELO 202 Life and Teachings of Jesus
Lec. 3./Online/Credit 3.
Intensive study of the Biblical record of the life and teachings of Jesus, designed to acquaint the student with the direct teachings and Spirit in which Jesus lived and worked.

RELO 203 Islam Lec. 3./Online/Credit 3.
History of Islamic thought from the time of Muhammad to the present, including the prophethood of Muhammad, the Qur'an, theology and law, mysticism and philosophy, sectarian movements, modernism and legal reform, and contemporary resurgence.

RELO 204 Pentecostalism Lec. 3./Online/Credit 3.
This course will analyze the Pentecostal movement as it grew in the 20th Century as trans-cultural religious phenomenon. The course will explore the wider international context of Pentecostalism as it grew in Central and South America. Attention will also given to how ethnic minorities in the United States have reshaped the practice and the meaning of Pentecostalism, particularly with regard to race and gender. The approach will be historical, anthropological, and theological. Using various Pentecostal texts and articles, we will work toward a clearer understanding of the basic tenets of Pentecostalism, namely "divine healing," "baptism in the Holy Spirit," and "speaking in tongues." We will also investigate how the most recent internationalist shift within the Pentecostal movement has renewed millennialist thought and efforts for Christian ecumenism.

RELO 205 Other Religious Traditions
Lec. 3./Online/Credit 3.
A critical analysis of religious faith groups indigenous to the United States to include Jehovah Witnesses, Latter Day Saints, the Nation of Islam, New Age, and other groups.

RELO 211 New Testament I Credit 3.
Analyzes the literature of the New Testament in its social and religious setting, with special reference to the ministry and teaching of Jesus, the emergence of the church as a sect within ancient Judaism, and the development of Christian institutions in the Graeco-Roman world.

RELO 212 New Testament II Lec. 3./Online/Credit 3.
A critical examination and attempt to understand the New Testament as the written traditions which articulated the faith, expectations, and actions of the early Christians as they responded within Jewish and Greek culture to the historical events of their day, and especially as they responded to the life.

RELO 305 Hermeneutics (Biblical Exegesis)
Lec. 3./Online/Credit 3.
A study of sound principles for proper interpretation of the Biblical text with emphasis on context, structure, literary devices, and genre.

RELO 307 World Religions Lec. 3./Onlilne/Credit 3.
Study of Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Focus on the world-view of each tradition and the historical development of that world-view.

RELO 309 American Religious Traditions
Lec. 3./Online/Credit 3.
An historical survey of religion in America from the Civil War to the present. The course includes study of theological change in Protestantism, the emergence of three kinds of Judaism, controversy and change in American Catholicism, the origins of fundamentalism and Pentecostalism, and various expressions of African-American faith. It attends to the effects of immigration, urbanization, politics, and other social and cultural changes on American religious life.

RELO 310 Basic Insights of the Judaeo-Christian Tradition
Lec. 3./Online/Credit 3.
This course will explore the basic theological tenets of Judaism and Christianity to include their similarities and differences. Historical and systematic presentation of the biblical world view. The organic relationship of faith, ritual, and ethics, in biblical thought.

RELO 321 African American Religions in Historical Perspective Lec. 3./Online/Credit 3.
This course will examine the relationships between African American religion, black culture and black political thought. Centering our study on a few essential questions regarding the nature and function of the black church, we will explore its effect upon black cultural forms — music (from Gospel to Rap), fiction, poetry, and oratory. We will address a number of themes, including: the relationship between black church and black political leadership, race and religion, feminist theologies, and "Afrocentric Christianity." We will trace the development of African American religion in various historical contexts: Slavery, the Great Migration, and the Civil Rights era. Although this course will focus on African American Protestantism, we will examine black religion in other forms as well, particularly black Catholicism and the Nation of Islam.

RELO 401 Introduction to Theology
Lec. 3./Online/Credit 3.
A survey of theology with emphasis upon the practical application of the doctrines to the ministry of the Gospel in contemporary culture. Topics include the following: an overview of various theological perspectives, revelation, biblical inspiration, the Trinity, attributes of God, creation, and providence.

RELO 450 Introduction to Pastoral Care
Lec. 3./Online/Credit 3.
The course will expose students to the theory and practice of pastoral care. Emphasis will be placed on the development of pastoral skills, as well as theological, cross-cultural, and psychological models of interpretation.

RELO 451 Pastoral Limits and Pastoral Authority
Lec. 3./Online/Credit 3.
A course designed to develop an understanding of the nature of pastoral authority, its relationship to various forms of power, and the form and nature of pastoral leadership. It will explore pastoral boundaries, ethical constraints, and the limits of time, skill, and energy.

RELO 499 Senior Capstone Lec. 3./Online/Credit 3.
The senior capstone project allows a student to demonstrate mastery of the religious studies content and integrate that knowledge with practical experience. The capstone project should also demonstrate the students' analytical and interpretive skills and serve as a summative expression of what a student has learned in the Bachelor of Arts program. To make sure that each student meets outcomes, goals, and objectives of the program, the capstone project requires the approval of the program's advisor.

RUSO (Russian – Online)

RUSO 101 Elementary Russian I
Lec. 3./Lab 1./Online/Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

RUSO 102 Elementary Russian II
Lec. 3./Lab 1./Online/Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: RUSO 101 or the equivalent.

RUSO 201 Intermediate Russian I
Lec. 3./Lab 1./Online/Credit 3.
Continued development of ability to read, write, speak and understand Russian. Correct pronunciation stressed. Grammar reviewed. Prerequisite: RUS 1020 or equivalent.

RUSO 202 Intermediate Russian II
Lec. 3./Lab 1./Online/Credit 3.
Continued development of ability to read, write, speak and understand Russian. Correct pronunciation stressed. Grammar reviewed. Prerequisite: RUSO 201 or equivalent.

RUSO 301-302 Comprehensive Review of Russian Grammar I-II Lec. 3./Online/Credit 3.
Emphasis on oral and aural practices and composition. Focuses on conversation and essays.

RUSO 303-304 Russian Conversation I-II
Lec. 3./Online/Credit 3.
Extensive practice in speaking based on diverse reading selections: social, political, technological and others.

RUSO 320-321 Topics in Russian Literature and Culture I-II
Lec. 3./Online/Credit 3.
This course exposes students to important issues in Russian Literature through the study of films, arts and music. Focuses on conversation.

RUSO 400 Twentieth Century Russian Literature
Lec. 3./Online/Credit 3.
Students will analyze the development of Russian thought in literary works.

RUSO 440 Experiential Learning Lec. 3./Online/Credit 3.
Can include study abroad, research abroad, domestic or international internships.

SCIO (Science – Online)

SCIO 102 Introduction to Physical Science
Lec. 3./Online/Credit 3.
Some concepts and methods of modern physical science; consideration of its role in modern thought and society. Special emphasis will be given to topical themes that relate physical science principles to contemporary issues in science, technology and society.

SOCO (Sociology – Online)

SOCO 205 Introduction to Sociology
Lec. 3./Online/Credit 3.
Introduction to the scientific study of society and social behavior. Emphasis on culture, social structure, social inequality, social institutions and social change. SOC 205 is a prerequisite to all other courses given by the Department, unless permission of the instructor to waive the prerequisite is obtained.

SOCO 210 Social Problems Lec. 3./Credit 3.
A critical study of the institutional and structural sources of contemporary social problems such as economic and political inequality, racism and sexism, war and international conflicts, environmental and institutional crises. Attention given to how social problems particularly affect Blacks and to alternative strategies for solving social problems.

SOCO 215 Introduction to Criminology
Lec. 3./Online/Credit 3.
An introduction to the sociological study of crime. Major sociological theories of crime. Main kinds of crime: street crime, white collar, organized, corporate and political crime. Critical examination of the police, courts, corrections and other social institutions which deal with crime. Attention given to impact of crime on Black Americans. Prerequisite: SOC 205.

SOCO 250 Introduction to Social Research
Lec. 3./Online/Credit 3.
Introduction to multi-method approaches to social science research. The logic of sociological inquiry and the ethical issues of research. Students begin to collect and analyze data, and to compile research reports.

SOCO 303 Juvenile Delinquency Lec. 3./Online/Credit 3.
An analysis of youthful offenders. Focus on the theory and research in the explanation of law violation among juveniles. Traces historical development of public and private institutions created to control youthful offenders.

SOCO 304 Race and Ethnic Relations Lec. 3./Credit 3.
The systematic and critical study of racial and ethnic relations, as well as racism, in American society. Of special concern is the treatment of minorities by the dominant culture and the economic and political ramifications of such behavior in society

SOCO 305 The Criminal Justice System
Lec. 3./Online/Credit 3.
An overview and introduction to the criminal justice system. The major components of police, courts and corrections are examined.

SOCO 315 Sociology of Deviance Lec. 3./Credit 3.
An in-depth sociological analysis of the criminal, medical and religious constructions and rationalizations of the social treatment of "abnormal" members in society.

SOCO 320 Sociology of Black Families Lec. 3./Credit 3.
An examination of the similarities and differences between families with particular emphasis on the structure and status of Black American families. The course will examine single parent households, male-female relationships and the plight of Black children.

SOCO 322 Sociology of Black Women Lec. 3./Credit 3.
Examines the theoretical and substantive issues of gender and race. The focus will include Black women's perspectives and diverse experiences within the context of the dominant society. Special emphasis is placed on interpersonal relationships and institutional arrangements affecting Black women.

SOCO 324 Sociology of the World Systems
Lec. 3./Online/Credit 3.
Introduction to the world system. Inequality, conflict and change on a global level. Topics include imperialism, wars, racism, nationalism, religious fundamentalism, immigration, fascism, communism and revolutions. Comparisons between Third World people and African Americans.

SOCO 346 Statistics Lec. 3./Online/Credit 3.
Descriptive and inferential statistics. Prerequisite: SOCO 250, MATO 109/110 and junior standing and/or permission of instructor.

SOCO 400 Internship Trn./Credit 3.
The internship provides students with practical experience and application of sociological skills in community based agencies.

SOCO 326 Issues in the African Diaspora Lec. 3./Credit 3.
Study of selected comparative, historical, and contemporary issues faced by people of African descent throughout the world. Similarities and differences in Black experiences in Africa, the U.S., the Americas, and the rest of the world.

SOCO 328 Sociology of Religion Lec. 3./Credit 3.
Critical analysis of the role of religion in American society as a social, political and economic force. Special emphasis is placed on the impact of religious organizations upon social institutions.

SOCO 401 Sociology of Law Lec. 3./Credit 3.
An analysis of the sociological meaning and impact of the law, the agencies which control its use, and the critical analysis of the social constructions of legal reality.

SOCO 402 Political Sociology Lec. 3./Credit 3.
A sociological analysis of struggles for political power in the U. S. and internationally. Emphasis on the political significance of race, class, and gender.

SOCO 403 Victimology Lec. 3./Online/Credit 3.
Introduces students to the theoretical and substantive issues in victimization. Explores victims and victimization in the context of social, political and economic relations.

SOCO 405 Violence Against Women
Lec. 3./Online/Credit 3.
Provides a critical analysis of violence against women as an institution of social control. Violence is examined in the context of social and political inequality. Issues include rape, battering, sexual harassment and other forms of violence directed towards women. The impact of current legislation is examined.

SOCO 406 Social Psychology Lec. 3./Credit 3.
Focusing upon the sociological conception of socialization, this course explores the role of social institutions in the creation of the individual or self.

SOCO 414 Contemporary Issues in Social Policy
Lec. 3./Credit 3.
This course focuses on the critical analysis of social policy, addressing issues of racial bias, institutionalized discrimination, poverty, crime and community mental health and aging. The course will examine the role of social policy in dismantling institutional bases of inequality.

SOCO 415 Advanced Criminology Lec. 3./Online/Credit 3.
In-depth review of the sociological study of the problem of crime. Critical analysis of the concept of "society" as the "cause" of crime. Analysis of how social institutions respond to crime.

SOCO 416 Sociology of the African American Experience
Lec. 3./Credit 3.
This course will examine origins and implications of Black life. Emergent philosophical models such as Afrocentricity, classical African-American theorists and vanguard methodological and conceptual issues will be explored.

SOCO 422 Sociology of Sex and Gender Lec. 3./Credit 3.
This course explores women's experiences in society from a sociological perspective. Current research and theory on the social construction of gender in social institutions is examined.

SOCO 499 Special Topics Sem.3/Credit 3.
Special topics in sociology. May be taken more than once as the topic of the course changes.

SPAO (Spanish – Online)

SPAO 101 Elementary Spanish I Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed.

SPAO 102 Elementary Spanish II Lec. 3./Lab l./Credit 3.
Introductory course designed to develop the four skills: listening, speaking, reading and writing. Oral proficiency and communication competence stressed. Prerequisite: SPAO 101 or the equivalent.

SPAO 201 Intermediate Spanish I Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: SPAO 102 or the equivalent.

SPAO 202 Intermediate Spanish II Lec. 3./Lab l./Credit 3.
The continued development of listening, speaking, reading and writing skills. Includes reading of authentic texts. Prerequisite: SPAO 201 or the equivalent.

SPAO 301-302 Advanced Oral and Written Expression I-II Lec. 3./Online/Credit 3.
Intensive practice in speaking. Review and further analysis of grammatical structures and idiomatic expressions. Prerequisite: SPAO 202.

SPAO 310 Survey of Hispanic Literature Lec. 3./Online/Credit 3.
Survey of Spanish literature from the Middle Ages to the present. A study of representative Spanish authors and their works. Prerequisite: SPAO 202.

SPAO 320 Survey of the Spanish Speaking World Lec. 3./Online/Credit 3.
A broad survey of the Spanish speaking world beginning with the first millennium of Spanish civilization and the Pre-Columbian civilizations of Latin America through the present day. Prerequisite: SPAO 202.

SPAO 400 Special Topics: Contemporary Culture in Modern Spain Lec. 3./Online/Credit 3.
A comprehensive study of Spain including the Spanish Civil War and the domination of Franco. Continues through Spain's democratic transition and its coexistence with the Spanish Monarchy. Includes a study of economic, social, and artistic issues in Modern Spain.

SPAO 412 Modern Latin American Literature Lec. 3./Online/Credit 3.
Study of 20th century Latin American authors. Prerequisite: SPAO 310.

SPAO 440 Experiential Learning Credit 0-3.
Can include study abroad, research abroad, domestic or international internships. This requirement may be waived by the Program Director based upon previous experience, as in the case of heritage speakers, etc.

STAO (Statistics – Online) Graduate Only

STAO 600 Statistics Lec. 3./Online/Credit 3.
An interdisciplinary course for graduate students. Procedure of data reduction presentation and measures of central tendency, variability, and relation are presented to develop both an understanding of and an ability to utilize descriptive and inferential statistics. Permission of the instructor.

UNVO (University Life – Online)

UNVO 101 The Individual and Life Lec. 1./Online/Credit 1.
A one semester required orientation course designed to help those matriculating at Hampton University to understand the purpose and value of the Hampton University experience.

THE REGISTER

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