



# NORFOLK STATE UNIVERSITY™

## 2006-2007 Undergraduate Catalog





# NORFOLK STATE UNIVERSITY

## 2006-2007 UNIVERSITY CATALOG

700 Park Avenue  
Norfolk, VA 23504

Phone: (757) 823-8600  
<http://www.nsu.edu>

*Achieving With Excellence*



### *A Welcome from the University President*

Welcome to Norfolk State University. Since its founding in 1935, Norfolk State University has provided an environment for students to give expression to their goals and aspirations. In its short 70-year history, Norfolk State University has been committed to its mission: to provide an affordable, high-quality education to an ethnically and culturally diverse student population. This mission has always been at the heart of our educational programs. Norfolk State has grown and expanded its mission to provide educational opportunities for students to become the future leaders of tomorrow. We pride ourselves on quality academic programs, talented faculty members, a commitment to achieving with excellence and a school spirit like no other institution in the region.

Norfolk State University is an institution poised for liftoff to the next level. As we move into the future, we are preparing ourselves to be at the cutting edge of providing innovative new programs and services to place the institution at the forefront of science and technology, while remaining committed to our liberal arts roots. As you review the Norfolk State University catalog, please consider joining our NSU family.

Sincerely,

*Carolyn Winstead Meyers*

Carolyn Winstead Meyers, Ph.D.

# Norfolk State University's Leadership Vision

## NSU'S MISSION:

To provide an affordable, high-quality education for an ethnically and culturally diverse student population, equipping them with the capability to become productive citizens who continuously contribute to a global and rapidly changing society

### Strategic Imperatives:

Enhance students' success by providing high-quality academic instruction and support to ensure an improved graduation rate

Develop an efficient management structure to increase organizational efficiency and improve performance across all areas

Increase total funding by identifying multiple funding sources and new initiatives to form a solid fiscal foundation and provide ongoing services for NSU's constituents

Core assets: • Talented Student Body • Public Support • Motivated Faculty • Tradition of Service

## **SPECIAL INFORMATION REGARDING THE UNIVERSITY CATALOG**

1. Policies regarding enrollment of degree seeking students at Norfolk State University are listed below:

All students will follow the curriculum and the degree completion requirements specified in the University Catalog issued for the year of their initial enrollment as degree seeking students.

The University will honor degree completion requirements specific for students in the University Catalog for the year of initial enrollment, as long as such enrollment is continuous (summer semesters not included.)

A student who does not maintain continuous enrollment (summer semesters not included) will follow the degree completion requirements specified in the University Catalog issued the year of re-enrollment.

Any student under any degree program who has re-enrolled in the University after interruptions of more than two semesters will be required to meet the requirements of the current catalog.

A student who transfers to another degree program will follow the requirements specified in the University Catalog issued for the year of the transfer into the new degree program.

2. Students are held individually responsible for reading and complying with the University policies contained in the Catalog.
3. The Catalog is not an unchangeable contract but, instead, an announcement of present policies only. Implicit in each student's enrollment is an agreement to comply with University rules, policies, and regulations that the University may modify to exercise properly its educational responsibility.

## **NORFOLK STATE UNIVERSITY AFFIRMATIVE ACTION/ EQUAL EMPLOYMENT OPPORTUNITY POLICY**

It is the policy of Norfolk State University to provide equal educational opportunity and equal employment without regard to race, color, national origin, political affiliation, religion, sex, age, or disability. Any employee or student who feels discriminated against should be referred to the Director of Affirmative Action.

## **STUDENT RIGHT-TO-KNOW ACT**

### **Disclosure**

Information pertaining to this Act is available in the Office of the Registrar and the Office of Institutional Research.

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## GENERAL INFORMATION

### HISTORY OF THE UNIVERSITY

Norfolk State College was founded in 1935. The College, brought to life in the midst of the Great Depression, provided a setting in which the youth of the region could give expressions to their hopes and aspirations. At this founding, it was named the Norfolk Unit of Virginia Union University. In 1942, the College became the independent Norfolk Polytechnic College, and two years later an Act of the Virginia Legislature mandated that it become a part of Virginia State College.

The College was able to pursue an expanded mission with even greater emphasis in 1956 when another Act of the Legislature enabled the institution to offer its first Bachelor's degree. The College was separated from Virginia State College and became fully independent in 1969. Subsequent legislative acts designated the institution as a university and authorized the granting of graduate degrees. In 1979, university status was attained.

Today, the University is proud to be one of the largest predominantly black institutions in the nation. Furthermore, it is committed to pursuing its vital role of serving the people of the Hampton Roads area.

### MISSION STATEMENT

Norfolk State University's Mission is to provide an affordable, high-quality education for an ethnically and culturally diverse student population, equipping students with the capability to become productive citizens, who continuously contribute to a global and rapidly changing society.

Strategic imperatives:

- Enhance students' success by providing high-quality academic instruction and support and ensure an improved graduation rate
- Develop an efficient management structure to increase organizational efficiency and improve performance across all areas
- Increase total funding by identifying multiple funding sources and new initiatives to form a solid fiscal foundation and provide ongoing services for NSU's constituents

Core assets:

- Talented student body
- Public support
- Motivated faculty
- Tradition of service

### INSTITUTIONAL GOALS

Institutional goals are derived directly from the mission statement and represent the direction the University intends to pursue over the decade.

1. The University shall continue to define those areas in which it can make the most effective contributions to the total educational enterprise of the community, state, nation, and the world.
2. The University shall continue to utilize its assembled expertise in research and public service to develop programs specifically related to urban needs.
3. The University shall continue to develop its management capability in order to provide adequate, efficient, and timely services to its constituents.
4. The University shall continue to maintain an environment which encourages its graduates to assume leadership roles in the community, state, nation, and world.

### ACCREDITATION AND AFFILIATIONS

Norfolk State University is accredited by the Commission of Colleges of the Southern Association of Colleges and Schools, (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone number 404-679-4500; Web Site [www.sacscoc.org](http://www.sacscoc.org)) to award the associate, baccalaureate, master and doctoral degrees.

**SPECIALIZED ACCREDITING AGENCIES****Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)**

Journalism (BA)

Mass Communications (BS)

**American Board of Funeral Service Education**

Certificate in Funeral Services

**American Chemical Society (ACS)**

Chemistry (BS)

**Commission on Accreditation for Dietetics Education, American Dietetic Association**

Food Science and Nutrition

**American Psychological Association**

Clinical Psychology (Psy.D)

**Association to Advance Collegiate Schools of Business (AACSB)**

Accounting (BS)

General Business (BS) in Management Information Systems

**Commission on Accreditation of Allied Health Education Programs, American Kinesiotherapy Association**

Physical Education/Exercise Science (BS)

**Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (CAC of ABET)**

Computer Science (BS)

**Council on Social Work Education (CSWE)**

Social Work (BSW)

Social Work (MSW)

**National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)**

Medical Technology (BS)

**National Association of Industrial Technology (NAIT)**

Vocational/Industrial Education (BS)

Building Construction Technology

Computer Technology (BS)

Design Technology (BS)

Electronic Technology (BS)

Architectural Drafting (AS)

**National Association of Schools of Art and Design**

Visual Studies (MA and MFA)

**National Association of Schools of Music (NASM)**

Music Education (BMus)

Music (MMus)

**National Council for Accreditation of Teacher Education (NCATE)**

Early Childhood Education (BS) (Non-Teaching)

Business Education (BS)

Pre-Elementary Education (MA)

Urban Education (MA)

Teaching (MA)

Severe Disabilities (MA)

**National League for Nursing Accrediting Commission (NLNAC)**

Nursing (AS)

Nursing (BS)

**Other Affiliations**

Other affiliations of the University include membership in the Administrative Management Society; American Alliance for Health Education, Recreation, Physical Education and Dance; American Association for Affirmative Action; American Association of Colleges of Nursing; American Association of Collegiate Registrars and Admissions Officers; American Association of State Colleges and Universities; American Council of Construction Education; American Public Health Association; American Society of Engineering Education; American Society of Manufacturing Engineering Association for Continuing Higher Education; Association of American Colleges; Association of Governing Boards of Universities and Colleges; Association of Information Systems Professionals; Association of Virginia Colleges; Central Intercollegiate Athletic Association; College Placement Council; Council for Advancement and Support of Education; Council of Social Work Education; Intercollegiate Music Association; and Mid Atlantic Association for School, College and University Staffing.

The University is also a member of the National Alliance of Business College/Industry Relations; Cluster Program; National Association for Equal Opportunity in Higher Education; National Association for Intercollegiate Athletics; National Association for the Health Professions; National Association of College Admissions Counselors; National Association of Student Personnel Administration; National Business Education Association; National Center for Allied Health Leadership; National Collegiate Athletic Association; National League of Nursing; Norfolk Chamber of Commerce; Southern Association of Collegiate Registrars and Admissions Officers; Southern College Placement Association, Inc.; Southern Regional Education Board; Southern Region II, ALAW; Virginia Association of Allied Health; Virginia Association of College Nursing; and Virginia Public Health Association.

## ADMINISTRATIVE OFFICES

The administrative offices help the university carry out its mission efficiently and effectively. The University is organized into 5 divisions; Academic Affairs, Finance and Business, Research and Technology, Student Affairs and University Advancement. Each division is led by a vice president who reports directly to the University President.

### DIVISION OF ACADEMIC AFFAIRS

**Elsie Barnes, Vice President for Academic Affairs**

**(757) 823-8408**

The Division of Academic Affairs at Norfolk State University bears leadership responsibility for the academic focus of the institution. The Division plays a central role in the articulation, development, initiation and continuing support of the educational philosophy of Norfolk State University which is articulated in its mission: "To provide an affordable, high quality education for an ethnically and culturally diverse student population, equipping students with the capability to become productive citizens who continuously contribute to a global and rapidly changing society."

The Division is made up of five schools, a satellite center, and other academic programs. The schools are the School of Business, the School of Education, the School of Liberal Arts, School of Science and Technology, and the Ethelyn R. Strong School of Social Work. Thirty-three bachelor's degree programs, two associate degree programs, sixteen master's degree programs, and two doctoral degree programs are offered through these schools. Additionally, in keeping with the effort to respond to the exigencies of a rapidly changing technological society, the institution has established five Centers of Excellence: The Center for Applied Social Science Research and Public Service, the Center for Entrepreneurship, the Institute for Service Learning and Literacy, the Bringing Education and Science Together (BEST) Laboratory, and the Center for Materials Research.

Continuing Norfolk State University's tradition of service, the Division of Academic Affairs promotes and encourages community involvement. The Division of Academic Affairs provides a variety of programs and opportunities in which the students, faculty and staff may demonstrate their altruistic spirit.

The goal of student success guides all academic policies and processes. The Division of Academic Affairs is committed to student mastery of subject matter, the acquisition of liberal knowledge and the development of competence in students' career fields. The leadership of the Division of Academic Affairs works in concert with the faculty to ensure that the curriculum support the University's mission and strategic imperatives.

To that end, the Division has developed a strategic plan that includes the following goals:

1. To ensure faculty competence.
2. To ensure student mastery of subject matter.
3. To ensure an optimum learning environment.
4. To ensure on-going faculty development.
5. To provide a stimulating learning environment.
6. To ensure a sound learning environment.
7. To encourage faculty and student research, scholarship and grantsmanship.
8. To expand current course offerings.

The implementation plan for these goals, including targeted initiatives, idea descriptions, action steps and resource needs, are outlined in the full body of the Division of Academic Affairs Strategic Plan. A copy of this plan is located in the administrative offices of the Division of Academic Affairs, Suite 460, Harrison B. Wilson Hall (757) 823-8408.

## COOPERATIVE EDUCATION/INTERNSHIP PROGRAM

Cooperative Education at Norfolk State University is part of a nationwide college/university program that integrates academic course work with career-related, paid work experience. Cooperative Education (co-op) provides students with an answer to the question most commonly asked by recruiters of graduating seniors, "WHAT EXPERIENCE HAVE YOU HAD?" Co-op students will have worked in a professional environment and will have performed work assignments in chosen career fields that supplement their academic studies, leading to the educational degree. The cooperative plan of education, which combines theory with practice, offers the ultimate in a completely rounded and integrated educational experience.

Cooperative Education is available to undergraduates and graduate students in most academic areas. Participation in the program is open to students who have completed 30 semester hours, are in good academic standing with the University and have a minimum 2.0 grade point average. Approval of the program director is required.

Participation in the program may earn academic credit for students enrolling in the following courses:

CED 250	1 cr hr	CED 350	3 cr hrs	CED 450	3 cr hrs
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Interested students may request information using the following address:

Norfolk State University  
Career Services  
Cooperative Education Program  
Mills E. Godwin Student Center, Suite 306  
Norfolk, Virginia 23504  
(757) 823-8462

### **INTERNSHIP/SUMMER POSITIONS**

Students participate in full-time work assignments during the summer with no requirement to return for a second work period, although the option to do so may be available. Assignment must be major/career related. Also, an assignment can be paid or unpaid.

### **RESERVE OFFICERS TRAINING CORPS PROGRAMS**

#### **AROTC**

The Army Reserve Officers Training Corps (ROTC) was established at Norfolk State University on July 1, 1948, in the Military Science Department. Army ROTC is one of the best leadership courses in the country and is part of your college curriculum. During classes and field training, you will learn first-hand what it takes to lead others, motivate groups and how to conduct missions as an Officer in the Army. Upon graduation from Army ROTC, you will earn the bar of a Second Lieutenant and become a leader for life.

#### **NROTC**

The Naval Reserve Officers Training Corps (NROTC) was established at Norfolk State University in July 1982, in the Naval Science Department. The mission of the Naval Science Department is to develop selected university educated men and women morally, mentally, and physically and to imbue them with the highest ideals of duty, honor, and loyalty in order to commission them as officers who possess a basic professional background. Also, these men and women are motivated towards careers in the Naval service and have the potential for further development in mind and character to assure the highest responsibilities of command, citizenship, and government.

See School of Health Related Professions and Natural Sciences for program details.

### **ACADEMIC POLICIES, REGULATIONS AND GENERAL DEGREE REQUIREMENTS**

#### ***THE ACADEMIC YEAR***

The academic year is divided into two semesters and a summer session. The first semester begins in late August and ends before the Christmas holidays; the second semester begins in January and ends in May. The summer session begins one week after the conclusion of the second semester.

There is a short Thanksgiving recess that begins at the end of classes on the Tuesday before Thanksgiving and ends on the Monday immediately after Thanksgiving. There will be approximately three weeks between the end of the first semester and the beginning of the second semester. There is a spring vacation period of one week beginning on Monday of the week following mid-semester examinations. Classes resume the following Monday. Instruction is also suspended on legal holidays, i.e., Labor Day; Lee, Jackson, King Day; and Independence Day.

#### ***THE SUMMER SESSION***

The annual summer session includes two mini terms; a six-week term and a four-week term. It offers significant opportunities for entering freshmen and other students who wish to accelerate their studies and satisfy degree requirements. Various short workshops and institutes on topics of current interest are part of the summer offerings.

#### ***UNIT OF INSTRUCTION***

The semester hour is the unit of instruction used for computing the amount of work required for graduation. One semester hour is equivalent to one 50 - 70 minute period of instruction or lecture per week for 15 weeks. Two or three 50-minute periods of laboratory sessions are equal to one period of instruction or lecture.

#### ***THE CURRICULUM***

Developing, implementing, and updating curricula are the responsibilities of the faculty and academic administrators. The curriculum is the vehicle through which the University seeks to make its most significant impact upon the lives of students. The curricular offerings of each department and major are clearly and accurately described in this catalog.

**MAJOR COURSES**

Courses taken are organized around the major, the subject or area around which students center their studies according to talents, interests, and future plans. Usually, a student has confirmed a choice of a major by the end of the sophomore year, by which time he or she might have taken some beginning courses in the major field. The student will then take advanced courses in the major in the junior and senior years.

The major consists of a minimum of 27 semester hours in a subject or discipline. In addition to courses in the major, the student also gains general knowledge and determines interest in various fields of study in general education courses and electives.

**ELECTIVE COURSES**

Courses not taken to fulfill general education or major requirements may be chosen as electives to complete the minimum of 120 semester hours required for graduation. In the choice of electives, students should be guided by their prospective work and interest.

**EXPLANATION OF COURSE NUMBERING**

The three digit number will convey the course level and certain specific information as outlined:

100-199	Freshman Level Courses
200-299	Sophomore Level Courses
300-399	Junior Level Courses
400-499	Senior Level Courses
500-599	First Year Graduate Courses
600-699	Graduate Courses

Seniors who meet the qualifications outlined in the Graduate Catalog may, with the approval of the graduate program director, enroll in 500 level courses.

**GUIDE TO COURSE DESCRIPTIONS**

207                      Three Credits  
INTRODUCTION TO WORLD LITERATURE  
PREREQUISITES: ENG 101, 102

Close attention to works selected from world literature for their exemplary literary qualities and their bearing upon our cultural heritage.

**Explanations**

207 - course number

Three Credits - number of credits, which will be earned upon successful completion of the course.

**PREREQUISITES:** ENG 101, 102. Prerequisites are courses or conditions that must be successfully completed or met prior to enrollment in the course described. Prerequisites separated by a comma indicate a series of prerequisites, and all must be completed prior to enrollment in the described course. Parallel enrollment means that concurrent enrollment in the course designated is required.

**STUDENT ACADEMIC LOAD/OVERLOAD**

The normal course load for a full-time undergraduate student is 15 and no more than 19 semester hours. Students with a 3.00 average or above may carry additional hours ONLY with appropriate approval (academic advisor/department chairpersons). The registrar has been authorized to approve up to 21 semester hours. A course load in excess of 19 semester hours must be approved by the Dean of the School in which the student's major is housed.

Recommendation for Course Overload Form must be completed and signed by the department head/advisor before submission to the Dean's Office. The normal course load for a full-time graduate student is 9 and no more than 15 semester hours. The registrar may approve up to 15 semester hours. A course load in excess of 15 semester hours must be approved by the dean of the school.

**CLASSIFICATION OF UNDERGRADUATE STUDENTS**

Freshmen	Students meeting all entrance requirements who have completed 0-29 semester hours.
Sophomores	Students who have completed 30-59 semester hours.
Juniors	Students who have completed 60-89 semester hours.
Seniors	Students who have completed at least 90 semester hours.
Full-Time	A full-time student is one who is registered for a minimum of 12 credit hours during a given semester.

Part-Time	A part-time student is one who is registered for fewer than 12 credit hours during a given semester.
Non-Degree	A non-degree student is one who is not enrolled in a degree program (non-matriculating).

### **ACADEMIC STANDARDS**

Students are expected to study and perform to the best of their abilities. In order to assure that students take maximum advantage of educational opportunities, the University sets academic standards that students must meet to remain in school.

Students receiving financial aid from federal, state, or institutional funds administered by the Office of Financial Aid must meet the academic standards required of all students, as well as the standards required by specific financial aid programs. Continued eligibility for financial aid is contingent upon good academic standing in the University and satisfactory progress toward the completion of a degree.

Academic standards of the University are outlined in the undergraduate and graduate catalogs, student handbook, financial aid publications, and publications of the academic schools and departments of the University. It is each student's responsibility to know the standards required for his or her remaining in the University and to understand that continued financial aid is dependent upon meeting these standards.

### **UNDERGRADUATE ACADEMIC STANDARDS**

Academic progress toward a degree of a student is determined by the student's academic standing as measured by the number of semester hours graded with grades of "A" through "F" and the number of grade points earned. A minimum of 240 grade points and 120 graded semester hours (a 2.0 or "C" average) is required for graduation. All departmental and school requirements must also be met.

Minimum standards for satisfactory progress are:

<u>Resident Hours Graded</u>	<u>Minimum Resident GPA</u>
1-29	1.7
30-59	1.8
60- and over	2

Failure to achieve the academic standards listed above will result in academic probation, triggering the following academic probation reinstatement process:

Warning Status	Academic Reinstatement Requirement
1st Warning	<p>Upon receipt of First Warning Probation Letter, student must schedule an appointment with ACCESS and meet with an ACCESS advisor to:</p> <ul style="list-style-type: none"> <li>• Develop and sign an Academic Performance Contract</li> <li>• Review registration schedule for the upcoming semester. See Advisors for schedule revision if pre-registered or completed early registration (Students who did not pre-register for the semester must see advisors to assist with course selection and registration)</li> <li>• Enroll in and complete the Study Skills Seminar conducted by the ACCESS Department.</li> </ul>
2nd Warning	<p>Upon receipt of Second Warning Probation Letter, Student must:</p> <ul style="list-style-type: none"> <li>• Complete an Academic Performance Contract</li> <li>• See advisor to revise course schedule or assist with course selection and registration</li> <li>• Enroll in required Study Skills Seminar with the ACCESS Department.</li> </ul>
Suspension	<p>Issuance of Suspension Letter</p> <ul style="list-style-type: none"> <li>▪ Students who do not achieve the required grade point average after two semesters are subject to suspension from the University.</li> </ul>

### **Policy and Procedures for Appealing Academic Suspension**

If a student wishes to appeal the decision to suspend, a written letter of appeal must be faxed or mailed to the Office of the Registrar by the Wednesday prior to classes beginning. Any appeals received after this date will be deferred until the following semester. The appeal is submitted to the Suspension Appeals Committee and its decision is **final**. Notification of the outcome will be provided by the Office of the Registrar.

### **Re-Admission after Academic Suspension**

#### **Restoration of Academic Eligibility/Readmission**

Students suspended from the University for academic reasons must appeal their suspension prior to being re-admitted. It is strongly suggested that they adhere to the following requirements prior to appeal:

- take courses (minimum: 6 credit hours) during the University's summer session and maintain a GPA of 2.0 or better.
- have been absent from NSU for one or more semesters (which may include one summer) and have completed a minimum of 6 credit hours of academic work at another college or university, and have earned a grade-point average of 2.0 or better each semester.

**Study Skills Seminar**

The Study Skills Seminar is a non-credit, four-week seminar designed for students who are on academic probation. The seminar will introduce and promote development of skills necessary to enhance academic success in college. Emphasis is placed on the development of sound study habits.

**CLASS ATTENDANCE POLICY**

The University expects students to attend all classes. While unnecessary absences are discouraged, the University recognizes that, on occasion, students may have legitimate reasons for being absent. Thus, a student will be permitted one "unexcused" absence per semester hour credit or the number of times a given class meets per week. Once a student exceeds the number of allowed unexcused absences, an instructor may require an official University excuse. Not more than 20% of class meetings (excused and/or unexcused) may be missed by a student during a given semester. At the discretion of the instructor, a student whose absences exceed 20% of scheduled class meetings for the semester may receive a grade of "F" for the course.

Students have the responsibility to confer with their instructors regarding all absences or intended absences. If sudden departure from the campus (for an emergency or extraordinary reason) prevents a student from communicating with each of his or her instructors, the student is expected to notify the Office of Student Services/Judicial Affairs within 48 hours.

Class excuses are issued for legitimate reasons (medical, funerals--immediate family members only, official university business/activities, etc.) by the Office of Student Services/Judicial Affairs. Official written documentation may be required. Notes from relatives, friends, etc., are not accepted as "official" documentation for absences. The Office of Student Services/Judicial Affairs will determine if an absence is legitimate and if an excuse will be issued.

Students who become ill are encouraged to report to the Student Health Center, located in Spartan Station, for "minor" medical treatment. A current NSU ID card must be presented prior to treatment. Written verification of illness issued by the Health Center should be carried to the Office of Student Services/Judicial Affairs, and an official university excuse should be obtained.

Students residing in on-campus housing facilities are governed by the same policies and procedures as non-residential students insofar as class attendance and class excuses are concerned.

**ABSENCE FROM FINAL EXAMINATIONS**

If a student misses a final examination because of an emergency, he or she should notify the instructor within 48 hours after the examination was scheduled. Excuses for missing a final examination are issued by the Office of Student Services/Judicial Affairs only with the consent of the instructor. Such excuses are given only in EXTREME EMERGENCIES, and official, written documentation MUST be presented before an excuse is issued.

Failure to follow the procedure outlined for absence from final examinations will result in a grade of "F" for the examination, and a final grade will be computed and given for the course.

**CONTINUOUS ENROLLMENT**

Students who withdraw from all courses after the third week of the semester are considered to have been enrolled for the semester. Degree-seeking students who drop out for one semester, excluding summer sessions, may enroll in the subsequent semester provided they have not attended another college or university since last attending NSU, have not been suspended from NSU, and otherwise are eligible to return. A student who does not attend Norfolk State University for two or more consecutive semesters, excluding summer sessions, must submit an application for readmission. Readmission applications are available in the Office of the Registrar.

**OFF-CAMPUS TRIPS**

When a class is taken off campus, signatures of approval should be obtained from the department head and school dean prior to the trip. Written requests must include the destination, date and time of departure/return, mode of transportation, itinerary, a list indicating the student travelers, and the names of chaperones. A copy of approved requests should be forwarded to the Office of the Vice President for Academic Affairs and the Office of Student Services/Judicial Affairs. Students should be directed to the Office of Judicial Affairs/Student Services to obtain official class excuses.



The faculty/staff member in charge of any off-campus trip to be taken by an authorized University group (such as athletic teams, student organizations, musical or drama groups, etc.) should submit the same information in the preceding paragraph to the Office of the Vice President for Student Affairs prior to the trip. A copy of the same should also be forwarded to the Office of Student Services/Judicial Affairs so that students may obtain official class excuses.

### **THE GRADING SYSTEM, GRADE POINTS, AND GRADE POINT AVERAGE**

The grade (quality) point system based upon all hours graded at Norfolk State University is used to calculate student scholarship as follows:

Grade	Grade Points	Grade	Grade Points
A	4.00	C	2.00
A-	3.70	C-	1.70
B+	3.30	D+	1.30
B	3.00	D	1.00
B-	2.70	D-	0.70
C+	2.30	F	0.00

*P	None	
**AU	None	Audit
I	None	Incomplete
W	None	Official Withdrawal

\* Pass/fail grades are not available to graduate students, except in those courses designated for pass/fail credit.

\*\* Entered by the registrar

The grade point average is obtained by dividing the total number of grade points earned by the total number of semester hours graded. Example:

Course	Grade	Semester Hour	Grade Point
HIE 264	C	1	2
HIE 264L	C+	2	4.6
HIE 149L	B-	2	5.4
HFD 340	B+	3	9.9
FIA 180	A-	3	11.1
MUS 301	D-	3	2.1
		14	35.1

(35.10 divided by 14 = 2.5071)

### **REMOVAL OF INCOMPLETE (I) GRADES**

The "I" (Incomplete) symbol is used by the instructor when the course requirements have not been met because of illness or some other reason accepted by the instructor. It is the responsibility of the individual receiving the "I" to make arrangements with the instructor for the removal of the "I" grade. The instructor will set a time limit, usually no later than mid-term of the next semester, for the removal of the "I." Students have a time limit of one year to remove the "I" or it will change to "F" (failure).

No student will be allowed to graduate with an "I" on the record.

### **GRADE APPEAL**

The instructor has the responsibility for evaluating coursework and determining grades; however, the student has the right to appeal a grade that he or she believes to be in error. The appeal process may involve the following steps (the issue may be resolved at any level):

1. The student confers with the instructor involved.
2. The student and instructor (preferably together) confer with the chairperson of the department offering the course.
3. The student and instructor (preferably together) confer with the dean of the school in which the department is housed.
4. When the above steps do not resolve the issue, the student may initiate a formal written appeal through the Vice President for Academic Affairs to the Faculty/Student Grievance Committee for its review and recommendation. Appeals should not be taken lightly by either the student or the instructor.

5. The student is responsible for verifying the accuracy of his or her academic records. Grade appeals should be made immediately after the grade in question is received. No appeals will be considered after one year has elapsed or after graduation, whichever is earlier.

### **GRADE REPORTS**

Effective Spring 2006, grade reports are no longer mailed to students. Grades are now available online at SpartanShield. Anyone needing an official grade report for work or other purposes must complete a Request for Official Final Grade Report form in the Office of the Registrar. The grade report will be mailed within 2-3 business days.

### **REPEATING COURSES**

A student who has received a final grade of "C-" through "F" in a course may repeat the course. The course to be repeated must be taken at Norfolk State University and taken prior to completion of the degree at Norfolk State University. The normal registration procedure must be followed when registering for repeat courses, and the grade earned will be posted to the student's record. The credit and quality points for the highest grade earned (one grade only) will be used to calculate the student's GPA. All courses attempted (the original course attempted and the grade for that course) will remain on the student's permanent record and will appear on the transcript.

### **COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)**

As part of Norfolk State University's Program of flexibility to meet student needs and aspirations, a student may earn up to 60 credit hours through the CLEP General and Subject Examinations.

Any student or prospective student who has not received credit for or is not currently enrolled in a college level course in the particular field covered by the examination may take the test for CLEP credit.

CLEP is a nation-wide program of credit-by-examination that offers students the opportunity to obtain recognition for college level achievement; personal reading, on-the-job experience or volunteer activities that may have prepared one to earn college credit. Each school determines which CLEP tests it will accept for credit and the amount of credit it will award.

### **ACADEMIC HONESTY**

In keeping with its mission, the University seeks to prepare its students to be knowledgeable, forthright, and honest. It expects and requires academic honesty from all members of the University community. Academic honesty includes adherence to guidelines established by the University for the use of its libraries, computers, and other facilities.

"Academic or academically related misconduct" includes, but is not limited to, unauthorized collaboration or use of external information during examinations, plagiarizing or representing another's ideas as one's own, furnishing false academic information to the University, falsely obtaining, distributing, using, or receiving test materials, obtaining or gaining unauthorized access to examinations or academic research materials, soliciting or offering unauthorized academic information or materials, improperly altering or inducing another to alter improperly any academic record, or engaging in any conduct which is intended or reasonably likely to confer upon one's self or another an unfair advantage or unfair benefit respecting an academic matter.

Further information regarding academic or academically related misconduct, and disciplinary procedures and sanctions regarding such misconduct, may be obtained by consulting the current edition of the Norfolk State University Student Handbook.

### **COURSE SUBSTITUTIONS**

A course substitution requires approval by the student's advisor, the department head and the school dean. Course substitutions allow a department to use NSU course or transfer course (C or Better grade) to meet a degree requirement when the actual course is not being taught within a particular semester or is no longer offered.

Substitution is not to be confused with waiver. Substitution is an option to meeting a requirement, while waiver implies exemption. Waivers are not granted.

Use of Military Science and Naval Science courses as substitutions requires approval of the advisor, the department head, and the school dean and is limited to:

General Education Core - 6 hours  
MIS and NCS 111, 112, 211, 212 for PED 100, HED 100  
HIS 380 for HIS 100, 101, 102, 103

Free Electives - 6 hours  
Upper-level (300, 400) MIS and NSC courses may be used provided the student is enrolled in the appropriate Military Science or Naval Science Program when substitutions are requested.

**CHANGE OF MAJOR**

Students who find it necessary to change majors should confer with the assigned University departmental advisor concerning the proposed change. An entrance interview should be scheduled and conducted with the department head or program director of the major to which the student is changing. The Petition to Change Major Form, available in each academic department, must be completed and signed by the department head of the relinquishing department and presented during the entrance interview. No student may change major without approval of the department from which and to which a transfer is made. A minimum grade of "C" is required in all courses in the major.

**MINORS**

Norfolk State University provides an opportunity for undergraduate, degree-seeking students to pursue studies in a minor. The minor may be chosen to complement the major, to provide recognition of study in a second academic area, to meet an area of interest by the student, or to increase job opportunities upon graduation. Completion of a minor is optional and is not required for degree completion. Minors are offered in Accounting, Astronomy, Biology, Chemistry, Computer Science, English, Fine Arts, History, Interdisciplinary Studies, Military Science, Mass Communications/Journalism, Music, Physics, Political Science, and Sociology.

Students who wish to pursue a minor must consult with their academic advisor at any time, but no later than the time to submit an application for graduation, and must declare a minor by completing a Change of Major/Minor Form. The minor will not appear on the diploma. All applicable University, school and departmental (major and minor) policies and procedures must be followed. Appropriate paperwork must be completed in a timely manner and must meet applicable deadlines.

**REQUIREMENTS FOR THE ASSOCIATE OF SCIENCE DEGREE**

The University awards the associate of science degree to those who successfully complete requirements as set forth for the program desired. Candidates for the associate degree must complete an application for graduation through their departments and pay the required fee. At least 20 hours of general education are required of students pursuing an associate degree. At least 25% of the coursework leading to an associate degree must be completed in residence (at Norfolk State University). Associate degree candidates must meet core competencies required of all NSU undergraduates.

The minimum requirements for the associate degree are 60 semester hours with a cumulative grade point average of 2.00. A grade of "C" or better is required in major courses and ENG 101 and ENG 102.

**REQUIREMENTS FOR THE BACHELOR'S DEGREE**

Requirements for the bachelor's degree are both quantitative and qualitative. The department head and advisor make the initial check for fulfillment of departmental requirements. The Office of the Registrar makes the final check for compliance with University-wide requirements.

To receive the bachelor's degree, a student must:

1. Complete the General Education Core requirements.
2. Have a minimum cumulative grade point average of 2.0.
3. Have a minimum of 120 semester hours of credit.
4. Meet all requirements of the curriculum leading to the degree for which he or she is a candidate.
5. Have spent a minimum of two semesters in residence at Norfolk State University and have earned a minimum of 30 semester hours of credit during this period, including all of the courses required by the senior year curriculum. Exceptions to this may be made only with PRIOR written approval of the Vice President for Academic Affairs upon recommendation of the Department Head and School Dean. Exceptions may not exceed six semester hours.
6. Meet core competency requirements.

**GENERAL EDUCATION AT NORFOLK STATE UNIVERSITY**

The general education core at Norfolk State University provides the foundation for the University's mission to develop in students the knowledge, qualities and attitudes necessary to become productive citizens who contribute to a globally and rapidly changing society. Such citizens are educated persons. They are life-long learners who communicate effectively and appreciate diverse manifestations of different cultures, recognize and exercise their responsibility to contribute to the growth of society, use technology appropriately to enhance their personal and professional lives, and possess a rational open-mindedness that leads to analytical and critical patterns of thought.

"The breadth of knowledge and skills required by the general education core complements the depth of knowledge that students acquire in their specialized fields, thus enhancing their ability to contribute to their local, national, and global communities."

Students entering Norfolk State University who complete the general education core will be able to:

1. Write and speak logically, clearly, and precisely;
2. Read and comprehend written and graphic information;
3. Locate, compile, organize, and document information from print and digital sources;
4. Understand mathematical and technological thought and conceptualize appropriate logic in problem solving;
5. Understand and apply key concepts, principles and processes in the natural and social sciences;
6. Demonstrate technological proficiency appropriate to their professional and personal needs;
7. Examine, evaluate and appreciate history's influences on economic, political and social events;
8. Understand and appreciate diverse cultures and perspectives;
9. Examine and understand the role of personal and responsible citizenship in a democratic society; and
10. Appreciate aesthetics.

### **GENERAL EDUCATION REQUIREMENTS FOR THE BACCALAUREATE DEGREE**

Students entering Norfolk State University seeking the baccalaureate degree are required to take forty semester hours from the general education core curriculum consisting of the following subject areas: Digital, Computer and Telecommunications (3); Communications (9); Humanities (6); Social Sciences (6); Mathematics (3); Natural Sciences (7); Health and Physical Education (3); and Cultural Electives (3). Departments may require specific courses for their majors.

#### **Communications (9 Semester Hours)**

ENG 101	Communication Skills I
ENG 102	Communication Skills II
SCM 285	Principles of Speech

#### **Digital, Computer and Telecommunications (3 Semester Hours)**

CLM 165	Computer Literacy for Musicians
CSC 150	Computer Literacy
FIA 180	Computer Literacy for the Arts
TED 170	Introduction to Technology

#### **Health and Physical Education (3 Semester Hours)**

PED 100	Fundamentals of Fitness for Life
HED 100	Personal and Community Health

#### **Humanities (6 Semester Hours)**

HUM 210	Humanities I
HUM 211	Humanities II
ENG 207	Literature of the Western World
FIA 201	Basic Art Appreciation
MUS 301	Music Appreciation
*ENG 383	African-American Literature
*FIA 370	African and African-American Art
*MUS 234	African-American Music

#### **Mathematics (3 Semester Hours)**

MTH 103	Contemporary Mathematics
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#### **Natural Sciences (7 Semester Hours)**

BIO 100	Biological Science
BIO 100L	Biological Science Lab
BIO 110	General Biology
CHM 100	Chemistry: Man and Environment
CHM 100L	Chemistry Lab
CHM 110	Basic Concepts in Chemistry
PHY 100	Physical Science
PHY 100L	Physical Science Lab
SCI 100	Life in the Universe

#### **Social Sciences (6 Semester Hours)**

SOC 101	Introduction to Social Sciences
HIS 100	History of World Civilization I
HIS 101	History of World Civilization II
HIS 102	United States History to 1877
HIS 103	United States History Since 1877
*HIS 335	African-American History to 1865
*HIS 336	African-American History Since 1865
*HIS 370	African History and Culture (Part 1)
*HIS 371	African History and Culture (Part 2)
*SOC 237	Cultural and Racial Minorities
*POS 315	Blacks in the American Political Process
*PSY 340	Psychology of African Americans

#### **Cultural Elective (3 Semester Hours)**

\*Courses marked with an asterisk satisfy the University's cultural elective requirement.

### **UNIVERSITY CORE COMPETENCIES**

The administration and faculty of Norfolk State University are committed to providing a high-quality education for students. Among other things, this commitment requires providing documented evidence that students are competent in six areas: writing, technology, oral communication, quantitative reasoning, scientific reasoning, and critical thinking. As a result, with advance notice, students will be required to demonstrate competency in one or more of these areas before graduating from the University. For example, all new students entering Norfolk State University in Fall 2001 and thereafter will be required to demonstrate competency in writing before graduating (See Writing Competency Assessment for additional information). Assessment of the remaining competencies is embedded in the related general education core courses. For example, assessment of scientific reasoning is embedded in courses meeting the Natural Sciences core.

### **WRITING COMPETENCY ASSESSMENT**

All first time freshmen and readmitted students entering Fall 2001 and thereafter and transfer students entering Fall 2002 and thereafter are required to take entry and exit examinations to assess their writing competency. After completing ENG 102, students must register for ENG 299 (no credit, no charge) until they have passed the Exit Examination of Writing Competency. The exit examination is a three-hour writing examination. Students will select a topic and respond to it with an essay of at least 500 words, using an expository form suitable for the topic. A satisfactory essay reflects the author's awareness of purpose and audience in its form, organization, content



(development), and usage and style (syntax, vocabulary, grammatical and mechanical correctness). Degree seeking students at the baccalaureate level are required to take the exit writing examination before completing 90 semester hours. Associate degree seeking students must take the exam no later than one semester prior to the anticipated date of graduation. This will allow time for students who do not meet the minimum passing standard to develop a course of action for improvement to pass the examination before graduation.

### ***STUDENT LEARNING OUTCOMES ASSESSMENT REQUIREMENT***

As part of Norfolk State University's mission and commitment to provide the environment and resources needed for success, students may be required to participate in a number of assessment activities at various points throughout their matriculation. The activities may include entry or exit examinations, surveys, focus groups and exit interviews, portfolio reviews, and evaluations of competence or mastery of specific skills. The assessment activities are designed to measure student outcomes in general education and in the major prior to graduation. The primary purpose of the assessment activities is to determine the extent to which the University's academic programs and services maintain a high level of quality and meet the needs of the students. Group results will be reported. Individual student results will never be reported and will remain confidential. Information from the assessment activities will be used by faculty and administrators to improve programs and services.

### ***DUAL DEGREE POLICY***

Dual degrees are awarded to students who concurrently fulfill the requirements for two majors and two degrees. A dual degree is earned when the student completes University and departmental requirements in both majors. Students must complete the minimum requirement for institutional credits and meet the graduation requirement for grade point average (GPA).

A minimum of 25% (30 additional semester credit hours) above the minimum hour requirement of the major requiring the most credits is required for a student to obtain a dual degree. All coursework for the second degree must be predefined and pre-approved by the department housing the second degree. The student will receive two diplomas and both degrees will appear on the student's permanent academic record.

### ***SECOND BACCALAUREATE DEGREE***

A student desiring to earn a second baccalaureate degree must complete application procedures with the Office of Admissions as with the first degree. Applicable credits from the previous degree may be applied (treated as transfer work) to the second degree; however, a minimum of 30 new resident credits will be required for the second degree. The usual departmental and University requirements must be met as with the first matriculation.

### ***COMMENCEMENT POLICY***

Commencement exercises are held two times each year, in May and December. Candidates must complete all requirements no later than the desired graduation date.

The Office of the Registrar processes all applications for graduation. Any student expecting to complete academic requirements at the end of a semester must complete and file an application for graduation through the academic department head's office by the designated due date for the applicable semester. It is the responsibility of the department head to submit the necessary forms and documentation to the Registrar's Office in compliance with established deadlines. A graduation application fee will be assessed in accordance with the University Fee Schedule.

Deficiencies and/or discrepancies must be resolved by department heads within prescribed guidelines. Failure to do so will subject the candidate to a future graduation status.

Each candidate/applicant is assessed a commencement fee in accordance with the fee schedule established for the desired graduation date to help defray certain related expenses, i.e., academic attire, announcements, diploma, etc.

### ***COMMENCEMENT PARTICIPATION***

Candidates for graduation must complete all degree requirements or be currently enrolled in all remaining credits that will complete degree requirements and satisfy all financial obligations in order to participate in commencement ceremonies. Academic and financial clearances must be obtained before academic attire is issued to the student. Participation in the commencement ceremonies does not mean the student has been awarded a degree. The degree is awarded in the semester when all degree requirements and conditions have been met, including the completion of all required paperwork.

The roster of candidates listed in the Commencement Program is a compilation of those eligible to participate. It should not be construed either as a complete or official list of those who will receive a university degree. Due to

printing deadlines, names of some degree candidates may not appear. Honors distinctions are based on the candidate's academic record at the time of publication.

Diplomas will be mailed approximately ten weeks after Commencement to students who have completed requirements, completed an Application for Graduation and have no University encumbrances.

### **RECOGNITION FOR EXCELLENCE IN SCHOLARSHIP**

Dean's List and an Honor Roll are compiled at the end of each fall and spring term and apply only to full-time (12-hour minimum) students. Eligibility for the Dean's List requires a minimum 3.50 term GPA with no "I" (incomplete) or missing grades and no grade less than a "C." Eligibility for the Honor Roll requires a term GPA of 3.00 -3.49 with no "I" or missing grades.

### **HONORS AT GRADUATION**

The following honors categories for baccalaureate graduates are reflected in the printed Commencement Program and on official records (transcripts) produced by the University:

Summa Cum Laude: cumulative resident GPA 3.7500 - 4.0000

Magna Cum Laude: cumulative resident GPA 3.500 - 3.7499

Cum Laude: cumulative resident GPA 3.0000 - 3.4999

### **CRITERIA FOR PARSONS VICE PRESIDENTIAL AND PARSONS PRESIDENTIAL SCHOLARSHIP DIPLOMAS**

In order to graduate as a PARSONS VICE-PRESIDENTIAL SCHOLAR (a designation that will appear on the student's diploma), a student must meet the following criteria:

- Active participation in the NSU Honors Program (see page 14).
- Successful completion of at least 15 credit hours of Honors courses, including at least one of the Honors seminars (GST 345H/346H or GST 445H/446H), with a grade of C or above for each Honors course and a GPA of at least 3.0 for all Honors courses.
- A cumulative GPA of 3.0 or above for all work completed at Norfolk State University.

Transfer Honors credits from an accredited college or university with an honors program of its own may be substituted for no more than 9 hours of the above 15. No substitution credit can be accepted for the Honors Seminar requirement.

Classes designated exclusively for DNIMAS or CMR scholars within the NSU curriculum may be substituted for up to 9 credit hours of the above, excluding the Honors Seminar requirement for which there is no substitution.

Because the Honors seminars (GST 345H/346H and GST 445H/446H) may only be taken by juniors and seniors, students who have matriculated for an Associate Degree only cannot graduate as Parsons Vice-Presidential Scholars.

In order to graduate as a PARSONS PRESIDENTIAL SCHOLAR (a designation that will appear on the student's diploma), students must meet the following criteria:

- Successful completion of at least 30 credit hours of Honors courses, including at least one of the Honors seminars (GST 345H/346H or GST 445H/446H) and the community service course (SPE 497 H), with a grade of C or above for each Honors course and a GPA of at least 3.0 for all Honors courses. Students are strongly encouraged to take two or more of the aforementioned Honors seminars; however, the minimum of one will be mandatory. The community service course is also mandatory for all students.
- A cumulative GPA of 3.0 or above for all work completed at Norfolk State University.

Transfer Honors credits or DNIMAS/CMR credits may be substituted for up to 15 hours of the 30-hour total, but this does not include the Honors Seminar or SPE 497H, requirements for which no substitutions can be made.

### **THE HONORS PROGRAM**

The Honors Program is designed to provide an enriched and challenging program of study for students who manifest exceptional academic potential, to improve the University's ability to attract such scholars, and to enrich the academic community.

Students may enter the Honors Program upon admission as freshmen having achieved at least a high school grade-point average of 3.0 and a combined score of 900 on the SAT. These students are expected to complete an entire

Honors sequence of courses (30 hours out of the 120 required for graduation). Sophomores, juniors, or seniors having achieved a 3.5 or above grade-point average for all courses completed in the curriculum may enter the Honors Program. Sophomores, juniors and seniors may enter Honors courses with a 3.0-3.49 GPA if they obtain the permission of the course instructor. All students in Honors courses are part of the NSU Honors Program and therefore are expected to participate in program activities.

Students in the NSU Honors Program are eligible for scholarships of \$500 per academic year. Students receiving Presidential Scholarships or Board of Visitors Scholarships are required to take Honors Courses. Students receiving Craig Scholarships are strongly advised to do so.

The NSU Honors Program is not an honor society but a regular facet of the University's academic offerings. Honors Program students are encouraged to participate in honor societies in their respective fields. Honors Program courses are open to all full-time undergraduates, including participants in other special programs such as the Dozoretz National Institute for Minorities in Applied Sciences (DNIMAS) and ROTC.

For additional information, please contact the director of the Honors Program at 823-8208.

### **INTER-INSTITUTIONAL EXCHANGE PROGRAM WITH OLD DOMINION UNIVERSITY**

Norfolk State University students have the opportunity to take courses at Old Dominion University through a student exchange program agreed to by the two institutions.

The registrar at each institution will register a student for courses at the other institution if the student presents a form properly signed by the appropriate university officials. The student exchange will be honored both in regular sessions and in the summer session. The Exchange Program applies to both graduate and undergraduate students. For degree purposes, credits earned by students will be considered as resident credits at the home institution. Courses taken at ODU under this Program will be considered the same as Norfolk State University courses; all other courses taken at ODU are subject to Transfer Credit Policy limitations. Registration under this Program is limited to students with cumulative grade point averages of 2.00 or better; the approval of the school's dean is required.

Regular bus service between campuses is provided during the regular session but is not available for evening classes or the summer session.

### **TIDEWATER CONSORTIUM EXCHANGE PROGRAM CROSS REGISTRATION**

Norfolk State University students may also take undergraduate courses at any of the following Tidewater institutions: Christopher Newport University (Newport News), Hampton University (Hampton), Paul D. Camp Community College (all campuses) Regent University (Virginia Beach), Thomas Nelson Community College (Newport News), Tidewater Community College (all campuses), and Virginia Wesleyan College (Norfolk).

The following regulations apply to cross registration:

- Cross registration is limited to declared majors with cumulative grade point averages of 2.00 or better.
- Cross registration is limited to 30 semester hours.
- Cross registration is normally limited to courses not available to students at the home institution during the current semester.

For further information, contact the Office of the Registrar.

### **OFF-CAMPUS CENTER**

#### **VIRGINIA BEACH HIGHER EDUCATION CENTER**

1881 University Drive  
Virginia Beach, Virginia, 23453  
(757) 368-4150

The Virginia Beach Higher Education Center, which is operated cooperatively by Norfolk State University and Old Dominion University, primarily offers graduate-level courses for Norfolk State University in criminal justice, secondary education, urban education (counseling) and social work. Junior and senior-level undergraduate courses and a number of continuing education offerings are also available. This Center offers administrative services, including academic counseling and course registration. Courses offered at the ODU/NSU Higher Education Center are listed with section number 85.

The mission of the NSU/VBHEC is to provide educational opportunities and outreach services for traditional and non traditional students with special emphasis placed upon the adult lifelong learner. Additionally, NSU/VBHEC strives to develop and disseminate educational programming, training programs, and selected technological information to its adult constituents outside the traditional credit delivery formats.

NSU/VBHEC is strengthening the skills of the adult learner through educational opportunities in workforce development, leadership, competitive education programs, continuing education, and business and community partnerships.

### ***RECLAMATION PROJECT***

The Reclamation Project began in the fall of 1999 as an effort to reclaim former Norfolk State University students. Students who have been away from the University for more than five (5) years and who are over the age of 24 qualify for participation in this project. For more information, please contact Dr. Dennis Montgomery, Program Advisor, at (757) 368-4154 (email: dlmontgomery@nsu.edu).

The Reclamation Project was created to facilitate the continuing education and subsequent graduation of former Norfolk State University students. Former students who have left the University without a degree and who meet specific eligibility requirements may apply to the program.

The program is designed for students to take full advantage of technology while maintaining the integrity and intellectual rigor of the University. Methodologies for degree completion are varied and include web-based instruction, web-enhanced instruction, independent study, video courses, TV courses and courses from institutions that have a consortial or collaborative partnership with Norfolk State University.

While students returning may pursue any degree program offered by the University, the Interdisciplinary Studies Degree Program is the primary academic model for this endeavor. The Bachelor of Science in Interdisciplinary Studies is a multi-disciplinary approach to learning that allows students to create an individualized area of concentration based on their unique needs, experiences, and interests. The flexibility of this degree program gives students the opportunity to pursue various fields of study in cross-disciplinary patterns.

Students will be treated as other Norfolk State University students and may apply for financial aid.

The overall management of the Reclamation Project is the responsibility of the Virginia Beach Higher Education Center-Office of Continuing Education. For additional information on the Reclamation Project, contact the reclamation advisor at (757) 368-4154.

### ***RECLAMATION PROJECT READMISSION***

In order to be readmitted as a part of the Reclamation Project, former Norfolk State University students:

- Must be 24 years of age or older,
- Must not have been enrolled at NSU within the last five years, and
- Must have taken a minimum of 6 credit hours of academic work at an accredited college or university, earning a grade point average of 2.0 or better for the courses taken (applies if the student's GPA upon leaving the University was less than 2.0).

Prior to a student's readmission, the student's intended major (i.e., degree track) must be approved by the program advisor of the Reclamation Project and the department head for the intended degree.

All applications for readmission, as a part of the Reclamation Project, must be forwarded to the Office of the Reclamation Project.

### ***RECLAMATION FORGIVENESS***

1. The Reclamation Forgiveness Policy applies only to students in the Reclamation Project. This policy is different from, and should not be confused with, the forgiveness policy that applies to regular students seeking to be readmitted.
2. Any student readmitted as a part of the Reclamation Project with a GPA less than 2.0 may receive forgiveness (as set forth below) for all courses with a grade of "C-" through "F" earned at Norfolk State University prior to the student's readmission.
3. Representatives of the Office of the Registrar will recalculate the student's GPA for the purpose of forgiveness.
4. All grades earned at the University will be shown on the student's transcript. Forgiven courses will be preceded with a "#" sign.
5. A student with a recalculated GPA, who has not exhausted his or her eligibility, may apply for financial assistance through the Office of Student Financial Services at the NSU main campus. Although students may be granted academic forgiveness, eligibility for financial assistance is not guaranteed.
6. Should a student whose grades have been forgiven choose to transfer prior to degree completion, all "forgiven" grades will revert to their prior status and will be reflected as same on the student's transcript.
7. The recalculated GPA may result in the student's losing some semester hours and, in so doing, increase the number of hours remaining that will be needed to for graduation.

8. Any student who intends to seek forgiveness must submit the appropriate forms (the Reclamation Readmission Application and the Application for Forgiveness) to the program advisor of the Reclamation Project by August 1 (for the following spring semester) or March 1 (for admission for the following fall semester).
9. Academic forgiveness cannot be granted if a student has earned a post-secondary degree following his or her initial NSU attendance and has applied NSU credits toward that degree.

**RECLAMATION READMISSION FORMS ARE AVAILABLE IN THE OFFICE OF THE RECLAMATION PROJECT AT THE VIRGINIA BEACH HIGHER EDUCATION CENTER**

***FUNERAL SERVICE CERTIFICATE PROGRAM***

The Funeral Service Certificate Program, offered by Norfolk State University's Continuing Education Department in conjunction with the School of Science and Technology, is a comprehensive course of study designed to prepare students for successful careers as funeral service professionals. The curriculum includes a variety of courses that reflect the complexities of the funeral service industry and that give students a firm understanding of both the technical and human aspects of the profession.

Additional information on the program may be obtained through the Department of Allied Health section of the academic program offerings of the School of Science and Technology. Also, for more information, call 368-4150.

***WORKFORCE DEVELOPMENT AND NON-CREDIT COURSES***

Workforce Development and Non-Credit course offerings provide nontraditional students a diverse selection of opportunities for personal enrichment or the opportunity to increase knowledge in a variety of subjects or the opportunity to obtain new career skills.

**What programs or classes do we offer?**

- "Live" courses located at the Virginia Beach Higher Education Center (VBHEC)
  - Classes meet weekdays, evenings, and weekends
  - Certificate courses include Paralegal, Pharmacy Technician, Telecommunications Training, Security Systems Technology
- Over 625 online non-credit courses are administered on the web, and most are instructor-led (check web page for complete listing and descriptions)
  - Open enrollment and easy access for student convenience

**Are there program requirements?**

- There are generally no minimum education prerequisites required for students to enroll in most courses
- No transcripts, "school application" or approvals necessary!

**Is there financial aid or loans available for these programs?**

- Yes, we have listed information regarding loans available for Online Courses on the VBHEC website.

**Who should enroll in these programs?**

- Anyone interested in courses that are informative, brief, relatively low cost and just plain FUN!
- Employees looking for certification and training
- Those seeking flexible schedules

**How do I apply?**

- Mail, phone, come in person, fax, or Email your personal and desired course information
- A non-credit registration form is displayed on our web page

**What if I move or live outside the Tidewater area?**

- Our online courses can be taken anywhere in the U.S. or the WORLD!

For more information, please contact the Office of Community and Professional Education at 368-4157, email: [rrlodge@nsu.edu](mailto:rrlodge@nsu.edu).

**<http://www.nsu.edu/vbhec/community.html>**

**MILITARY PROGRAMS**

Norfolk State University provides comprehensive counseling and advising services to active duty military, their family members, veterans, retired and reserve military, and Department of Defense civilian personnel. A current Memorandum of Understanding partnership exists with the Naval Station Norfolk as well as Special Arrangement Contracts pursuant to the Military Tuition Assistance and Seaman to Admiral-21 programs. Please call 489-8516 (Naval Station Norfolk students only) or 368-4156 (all other military students) for more information.

**CONFERENCES AND SEMINARS**

Conferences and training seminars are available in the areas of leadership, food safety, financial planning, continuing education seminars designed to suit your needs, and participation in the Women Achieving with Excellence Series. The center is also available to rent for conferences, worship services, seminars, and other community-related events. For more information on upcoming conferences and training seminars and on how to secure the VBHEC for an event, please call (757) 368-4150 or visit our website at [www.nsu.edu/vbhec](http://www.nsu.edu/vbhec).

**LIBRARY SERVICES AND SPECIAL COLLECTIONS*****Lyman Beecher Brooks Library***  
**(757) 823-8873**

The Lyman Beecher Brooks Library provides services and resources to meet the informational and scholarly needs of the Norfolk State University community. Library users can access resources via the automated system, which facilitates use of the online catalog. The Reference Research area contains computer workstations that students can use to search for a vast array of information.

The Lyman Beecher Brooks Library is a member of the Virtual Library of Virginia. This cooperative effort of the libraries of colleges and universities in the state of Virginia provides cost effective access to online resources and enhances interlibrary lending. The Library has extensive journal subscriptions, including e-journals and many issues in micro format.

The Library is an open stack facility with space for approximately 2,000 readers and a book capacity of 500,000 volumes.

**Harrison B. Wilson Archives**

The Harrison B. Wilson Archives is the repository for the historical records of the University, its faculty, alumni, and students. The Archives also has the mission of collecting and preserving the historical records of African-Americans in Virginia and making them available to researchers.

**Lois E. Woods Museum**

In a 10,000 square foot exhibit area, the Lois E. Woods Museum houses a collection of African arts from 14 countries representing 40 groups and cultures. Included in the museum is a reference library with over 400 books on African art, folklore, and history.

**Art Library**

The Art Library, located in Room 314 of the Earl Hamm Fine Arts Building, houses reference materials applicable to art education and such related fields as business education, elementary and secondary education, health, industrial arts, language arts, mathematics education, music education, physical education, and social sciences education, as well as graphics and the fine arts.

**IMPORTANT INFORMATION REGARDING MATRICULATION**

Policies regarding the enrollment of degree seeking (matriculating) students at Norfolk State University are listed below:

All students will follow the curriculum and the degree completion requirements specified in the University Catalog issued for the year of their initial enrollment as degree seeking students.

The University will honor degree completion requirements specific for students in the University Catalog for the year of initial enrollment as long as such enrollment is continuous (summer semesters not included).

A student who does not maintain continuous enrollment (summer semesters not included) will follow the degree completion requirements specified in the University Catalog issued the year of re-enrollment.

Any student under any degree program who has re-enrolled in the University after interruptions of more than two semesters will be required to apply for readmission and meet the requirements of the current catalog.

A student who transfers to another degree program will follow the requirements specified in the University Catalog issued for the year of the transfer into the new degree program.

Students are held responsible for reading and complying with the University policies contained in the Catalog.

The Catalog is not an unchangeable contract but, instead, an announcement of present policies only. Implicit in each student's enrollment is an agreement to comply with University rules, policies, and regulations that the University may modify to exercise properly its educational responsibility.

## **ACADEMIC RESOURCES AND SERVICES**

### **OFFICE OF THE FIRST YEAR EXPERIENCE 757-823-8507**

The first year of college is the foundation upon which the entire academic experience is built. Norfolk State University views the first year of college as an essential time to help students build a solid foundation for life-long academic, personal, and career success. For this reason, the Office of the First Year Experience was established to assist students in making the transition to college, to work as advocates for first-year students, to provide academic support services to first-year students, to work with faculty to increase student retention and persistence to graduation, and to serve as a resource to all university units in serving the needs of first-year students.

The Office of The First Year Experience oversees the various activities and programs currently existing to support students; designs, recommends, and coordinates existing and new programs or initiatives focusing on the first-year experiences of new and transfer students; ensures cohesiveness in academic support services impacting new and transfer students; and assesses student outcomes as a result of first-year curricular and co-curricular programs and services.

The Office of The First Year Experience strives to:

- Assist students in making the transition to college
- Address the needs of first-time freshmen and transfer students
- Work with faculty to increase student persistence to graduation
- Work with faculty to ensure students achieve general education goals
- Serve as a resource to faculty advisors

### **University 101**

University 101 (Introduction to University Life) is a required course for all new students (first time freshman and transfer students) entering the university for the first time. The course meets one hour per week for one semester, is graded on a Pass/Fail basis, carries no credit hours, and is required for graduation. Entering transfer students who have transferred an orientation course from another institution are exempt from this requirement.

### **Academy for Collegiate Excellence and Student Success (ACCESS) 757-823-8507**

The Academy for Collegiate Excellence and Student Success (ACCESS) Program is a multi-faceted comprehensive program designed to facilitate and improve student success, retention and graduation rates. Emphasis is on intrusive academic advising, which involves selecting courses, strengthening basic skills, reinforcing classroom instruction, and enhancing overall student academic, personal, and career development.

ACCESS serves as an advocate for students and provides academic support services to all students. As advocates for students, ACCESS collaborates with all units in an effort to increase student retention and to produce academically prepared professionals who are ready to contribute to their communities. For additional information, please contact ACCESS at 757-823-8507 or visit [www.nsu.edu/access/](http://www.nsu.edu/access/).

### **Comprehensive Language Learning Center**

The Comprehensive Language Learning Center, located in Room 240 of J. Hugo Madison Hall, is a state of the art, interactive laboratory providing tutorial, computer assisted, audio, and video services for students and teachers of writing and the foreign languages.

### **Child Development Laboratory**

The Child Development Laboratory is part of Early Childhood Education in the School of Education. The laboratory provides a training and observation facility for class assignments, research, student teaching and field work. It provides a readiness curriculum for ages 2.6 to 5 years. Hours of operation are 8:00 a.m. to 5:00 p.m.



**Mathematics Testing Center**

The mission of the Mathematics Testing Center is:

1. to monitor computer pretests for the MTH 101 Elementary Algebra Lab Component;
2. to evaluate and record results of pretest mastery for MTH 101 faculty;
3. to diagnose deficiencies of students enrolled in MTH 101; and
4. to provide tutorial assistance for all pre-calculus courses.

**Mathematics Media Center**

This center contains workstations and audio visual materials to support classroom assignments and activities.

**Multicultural Learning Resource Center**

The Multicultural Learning Resource Center has a twofold purpose: (1) to identify, locate and/or provide materials and instructional media appropriate for use in developing teaching competence in multiple disciplines with students whose abilities, socioeconomic status, and cultural heritage differ, and (2) to encourage client competence in media selection and utilization.

**Planetarium**

The Norfolk State Planetarium is primarily a sky theater and laboratory, which may serve as a dramatic and fascinating facility for teaching concepts of Earth space science.

The Planetarium provides public shows for the University, the community, and the general public as a community service. Interested community groups are invited to make reservations for a prepared show, or they may request planetarium personnel to create a "tailor-made" program on a topic of special interest.

**Teacher Education Resource Center (TERECE)**

The Teacher Education Resource Center is committed to providing high quality service to teacher education candidates. TERECE increases the capacity of teacher candidates/interns to meet the requirements of methods courses. The primary goal is to link students with teacher resources. Education materials are available for loan, including assessment instruments, curricula, audio visuals, reference books, computer software and assistive technology.

**The School of Liberal Arts Social Science Center for Applied Research and Public Policy**

The Center for Applied Research and Special Projects is a computer-based social science research laboratory. Research and special projects include, but are not limited to, voting behavior studies; urban and neighborhood development studies; transportation studies; health population and policy studies; international development studies, and nonprofit organizations and government agencies restructuring studies. The Center provides opportunities for students as well as faculty to gain expertise. The Center for Applied Research and Special Projects is nationally recognized as one of the most technologically advanced research centers in the country.

**Communication Sciences and Disorders Center**

Special services in speech, language and hearing therapy are provided for students who have unusual difficulties in oral communication. These services are coordinated by a staff of highly trained speech pathologists and audiologists. There are no charges for these services. Students must be referred to the Speech Communication Laboratory by a member of the faculty. This is the only requirement for acceptance to the Center. Students, however, must assume the responsibility for meeting therapy appointments once they have been accepted. Dismissal from therapy is determined by the Speech Center staff.

**OFFICE OF GRADUATE STUDIES  
(757) 823-8015**

The Office of Graduate Studies administers the University's eighteen (18) graduate programs in the schools of Education, Liberal Arts, Social Work, and Science and Technology. The Office is responsible to the Vice President for Academic Affairs for the development and maintenance of high quality graduate programs. The Director of Graduate Studies serves as Chair of the Graduate Council and initiates activities and policies designed to maintain the currency and quality of the graduate programs and promote the general welfare of graduate students.

**THE GRADUATE COUNCIL**

The Graduate Council is responsible for the planning, development, and recommendation of policies, regulations, and procedures for all graduate programs at the University. Its aim is to ensure the satisfactory coordination of graduate studies and the maintenance of high quality graduate instruction. The Council, therefore, determines the following: (1) criteria for the selection of graduate faculty; (2) instructional loads for the graduate faculty; (3) requirements for admission to graduate study at the University; (4) mechanisms for the evaluation of effectiveness of graduate programs; (5) regulations governing the number of undergraduate hours which graduate students can apply towards a graduate degree and the admission of undergraduate students to graduate courses; (6) the number of transferable graduate credits that a student is allowed to accumulate and (7) other matters regarding procedures, policies, and regulations as they are presented to the Council for consideration.

Membership on the Graduate Council is restricted to representatives from those schools housing graduate programs, those schools which have been granted approval by the State Council of Higher Education in Virginia to implement graduate programs, the Faculty Senate, the Office of Academic Affairs, the library, the Graduate Student Association, and the Virginia Beach Higher Education Center.

**DEGREES GRANTED**

Norfolk State University offers advanced degrees in the following areas:

1. M.A. Applied Sociology – *Joint Program with Old Dominion University, which serves as the Institution of Record*

2. M.A. Media and Communications  
A. Interpersonal Communication Sequence  
B. Mass Communications Sequence  
C. Journalism Sequence

3. M.A. Community/Clinical Psychology

4. M.S. Optical Engineering

5. M.A. Teaching (MAT)

6. M.S. Electronics Engineering

7. M.S. Materials Science

8. MMUS Music

9. M.A. Pre-Elementary Education

10. M.A. Severe Disabilities

11. M.S.W. Social Work

12. M.A. Urban Affairs

13. M.A. Urban Education

14. M.A. Visual Studies (Jointly with Old Dominion University)  
M.F.A. Fine Arts – *Joint Program with Old Dominion University, Norfolk State serves as the Institution of Record*

15. M.A. Criminal Justice

16. M.S. Computer Science

17. Psy.D. Clinical Psychology

18. Ph.D. Social Work

**DIVISION OF FINANCE AND BUSINESS**

**Kevin Appleton, Vice President for Finance and Business**  
**(757) 823-8011**

The Division of Finance and Business provides leadership for the administration of the institution's fiscal and business services and protects its financial and capital resources. These services include providing leadership for an array of initiatives and services that sustain and enhance the University's living, learning and working environments for students, faculty and staff. The Division's priorities and goals are service oriented attitude, operational efficiency and effectiveness, and financial accountability. The institution's commitment to academic excellence and fiscal soundness is reflected in its stewardship of resources, integrity in our activities and customer-friendly interactions with constituents. The Division ensures that the University comply with applicable state and

federal requirements and sustain credible fiscal and operational management. The Division's support services include Administration; Auxiliary Services; Bursar; Controller; Environmental Health, Safety and Risk Management; Facilities Management; Finance; Human Resources; Parking and Transportation Services; Procurement Services and university Police. As the University maintains its credibility as a well-managed, fiscally sound institution of higher education, its goal is to promote greater efficiency and effectiveness in administration, while taking a proactive approach to emerging issues and new challenges.

### **BOOKSTORE**

The Bookstore is a service element owned by Norfolk State University and operated by Follett College Stores. It is located in the Mills E. Godwin, Jr. Student Center. The Bookstore provides the University community with the widest possible selection of goods and services of high quality at competitive prices, with particular attention being paid to academic requirements.

### **FOOD SERVICES**

NSU Dining Services prepares home-style cooked meals for meal plan participants and customers. Meals are served at Scott Dozier Dining Hall and West Dining Hall, which are conveniently located for students. Traditional meals are also served in the Faculty Dining Hall located adjacent to Scott Dozier Hall. All facilities are operated by Thompson Hospitality/Compass Group.

NSU Dining Services offers branded retail outlets such as Pizza Hut, Freshens, Origins, Coyote Jacks Grill and Chick-Fil-A. These retail dining areas are conveniently located on campus. The Spartan Station Food Court located at the Student Service Center provides specialty fast food and beverages for staff and students. NSU Dining Services also sponsors two Campus C-Stores to meet the needs of staff and students. There is an Outtakes Kiosk located in Wilson Hall Administration Building.

Catering services also are provided by NSU Dining Services. It is committed to accommodating customers and students with quality products and to providing incomparable service.

### **FACILITIES MANAGEMENT DEPARTMENT**

The Facilities Management Department has four major areas, namely Operations and Maintenance, Capital Planning and Improvements Administrative Services and Environmental Health, Safety and Risk Management.

The area of Operations and Maintenance provides all services needed to operate and maintain all university facilities. These services are provided by carpenters, painters, mason plasterers, plumbers, electricians, HVAC mechanics, locksmiths, housekeeping workers, grounds persons, laborers, engineers, administrative, work management center, and supervisory personnel. The Department is also responsible for electrical and other utilities distribution. In addition to operating and maintaining the facility plant, the department provides all labor services such as sound setups and moving and hauling for the entire university community.

The area of Capital Planning and Improvements provides services for space utilization, design, planning, bidding and contracting services for capital outlay projects and minor renovations and alterations to existing facilities.

The area of Administrative Services provides financial, budgeting and administrative services to the operating units within facilities. Services provided include budget, finance, payroll, postal services, inventory control, property disposal, receiving, warehousing, handle related billing issues, payment of all utility and vendor invoices, construction contract administration and funding for all new planning and construction projects.

The area of Environmental Health, Safety and Risk Management provides oversight to mandated programs; provides safety consultations to faculty and staff, and conducts training, incident investigations; monitors and coordinates evaluations for fire safety systems; manages liability and property damage claims; appraises and issues certificates of insurance coverage; coordinates hazardous waste storage and disposal. This area also designs and assesses response procedures for emergency situations.

### **UNIVERSITY POLICE DEPARTMENT**

Norfolk State University Police Department has primary responsibility for security on campus. Norfolk State University Police Department's mission is "to promote and maintain personal safety and physical and environmental security." The department's efforts include preventive measures through education and enforcement to promote awareness of individual responsibility in safety and crime prevention. Norfolk State University Police Officers are sworn officers empowered and mandated to enforce federal, state and local laws.

Norfolk State University Police Department's security policies and procedures comply with law enforcement regulations as established by the Commonwealth of Virginia and the Department of Criminal Justice Services.

**POSTAL SERVICES**

The Postal Service provides University faculty, staff and students with quality services when processing official campus and off-campus mail, and provides postage meter service for the University community at the prevailing governmental rates for all classes of mail. Proper mail handling instructions and assistance to University faculty, staff and students are also provided.

**INCLEMENT WEATHER**

Decisions to close the University due to inclement weather will be made by the Vice President for Finance and Business in consultation with the President and other vice presidents. The decision to close Norfolk State University will be communicated by the Director of News and Media Relations via the area's media outlets.

During times of inclement weather (i.e. hurricanes, tornadoes, etc.), employees and students can get information on NSU closings and cancellations from the following:

**Radio Stations:**

WNSB FM 91.1

WOWI FM 103

WJCD FM 105.3

WHRV FM 89.5

**Television Stations:**

WTKR CH 3

WAVY CH 10

WVEC CH 13

WVBT TV 43

For more information on this policy, please call the office of News and Media Relations at (757) 823-8373, the office of Finance and Business at (757) 823-8011 or the office of Risk Management at (757) 823-9142.

**FINANCIAL INFORMATION AND SERVICES****OFFICE OF STUDENT FINANCIAL SERVICES**

Student Financial Services offers services to students in the following areas:

- Cashier's Office is located in Room 150, Harrison B. Wilson Administration Building. The hours of operation are Monday through Friday from 8:00 a.m. to 4:30 p.m. The Cashier's Office phone number is (757) 823-8381.
- Student Financial Services (student accounts) is located in Harrison B. Wilson Administration Building, Room 130. The hours of operation are Monday through Friday from 8:00 a.m. to 5:00 p.m. The telephone number is (757) 823-8381.

The University recommends that students use one of the local banks for banking needs. An automatic teller machine is located on campus.

Questions pertaining to payment plans, billing, and delinquent accounts should be directed to the Office of Student Financial Services.

**TUITION AND FEES**

Tuition and fees are established annually by the University's governing board, the Board of Visitors. Considerable effort is made to keep increases at a minimum. For fee information, students should obtain a current "Schedule of Tuition and Fees" and "Registration Information and Schedule of Classes" booklet from the Registrar's or Admissions Office located in H. B. Wilson Administration Building. These documents will include the current tuition, mandatory fees, room, board, and any special instructional fees.

Students who register during late registration will be assessed a late registration fee of \$75.

Books, uniforms, supplies, professional dues, and examination expenses are paid separately from University charges. Students should consult their academic department for an estimate of these costs.

**MATRICULATION/ENROLLMENT FEE**

All first-time freshmen and transfer students must pay a one-time matriculation fee of \$35.

All first-time and transfer students must pay a \$100 non-refundable enrollment fee once accepted at Norfolk State University. For additional information about the enrollment fee, contact the Office of Admissions at (757) 823-8378.

**REGISTRATION PAYMENT DUE DATES**

All students are expected to pay prior balances and satisfy current tuition, fee, room and meal costs at the time of registration unless payment arrangements are made and/or financial aid is awarded and other scholarships are sufficient to cover the costs.

In the event a student does not satisfy a semester's charges per agreed upon terms, the student will be prevented from registering for future semesters.

**DEREGISTRATION**

If satisfactory payment arrangements are not made by established due dates, classes will be cancelled. If satisfactory financial arrangements are made before the registration period ends, students must re-register and are subject to late registration fees.

**Note:** Students run the risk of not being able to re-register for the same class schedule because the class(es) may be closed.

**PAYMENT OF TUITION AND FEES**

Students should be prepared to satisfy current tuition, fees, room and meal costs through either direct payment, financial aid, or one of the approved payment plans. Financial aid is the amount indicated on an award letter from the Financial Aid Office.

Current academic year Title IV financial aid funds will not be used to cover a prior academic year balance.

Non-University scholarships and work-study are not credited toward tuition and fees until funds are received; however, these awards may be used to establish a payment plan.

Students who register during late registration are expected to pay a late registration fee of \$75. Payment may be made by cash, certified check, cashier's check, personal check, money order, MasterCard, Visa or Discover Card. Checks and money orders should be payable to Norfolk State University and must include student's name or student ID number.

**PAYMENT OPTIONS**

The University offers several options for paying tuition, fee, room and meal costs.

**OPTION 1** Pay tuition cost in full with cash, check, money order, VISA, MasterCard or Discover Card. If mailing payments, please allow for delivery time.

Mail payment to: Cashier's Office  
Norfolk State University  
700 Park Avenue  
Norfolk, Virginia 23504

**OPTION 2** Pay with a combination of financial aid grants and Ford Direct Loans, Parent Plus Loan, private loans and cash.

Note: Parent Plus and private loans must be approved by the lender before credit can be given for the loan amount. Apply for financial aid dollars early. The Free Application for Federal Student Aid (FAFSA) can be completed on-line at [www.fafsa.ed.gov](http://www.fafsa.ed.gov).

**OPTION 3** Pay monthly through the Campus Partners (CP) Payment Plan, formerly known as Academic Management Services (AMS) and annual or semester monthly payment plans.

Benefits of this plan include:

- Manageable, interest-free installment payments
- Reduced need to borrow
- Tuition Insurance at no extra cost
- Combined plan with Financial Aid

There are two easy ways to enroll in the CP Plan:

- By Mail: Obtain and complete a CP Enrollment Form. Forms can be obtained from CP or Office of Student Accounts.
- By Phone: Call a CP Education Payment Counselor at (800) 635-0120.

**OPTION 4** Pay by selecting the NSU Spartan Payment Plan. The Spartan Plan is a semester only plan and there is a \$50 processing fee. Subtract awarded financial aid, outside scholarships, private loans, work study and deposits from total expenses to determine the remaining balance. Divide the remaining balance by 2 to determine the amount to pay now and the amount to pay later. Payments are due October 15 and November 15 for the Fall semester and March 15 and April 15 for the Spring semester. A \$30 late payment fee will be applied if payment is not made by the due date. Students interested in the NSU Spartan Payment Plan should contact the Office of Student Financial Services at (757) 823-8381 for an application and more information.

**Prior balances cannot be put on the CP or NSU Payment Plans.**

### **FINANCIAL AID FOR STUDENTS**

The purpose of Norfolk State University's financial aid program is to provide assistance to eligible students who, without such aid, would be unable to attend a university. Aid is awarded on the basis of need. Types of aid include scholarships and grants, loans and employment. Applications and additional information may be obtained at the Office of Student Financial Services.

The University offers a number of awards each year to eligible returning students and to students who have been accepted for admission. Some of these awards are available only to Virginia residents while others are awarded without regard to state residency.

A student must be enrolled at least half time, matriculating in a degree-seeking program or certification, and be in good academic standing in order to be eligible for financial assistance. However, certain programs require a student to maintain a full-time status.

Financial aid is awarded on an annual basis. Students are requested to reapply for financial aid each year and must continue to meet eligibility criteria. The deadline for applying for Norfolk State University's administrated financial aid is May 31 for the ensuing academic year.

An entering student must be accepted for admission before receiving a financial aid award offer. Award notifications for on-time applicants are normally mailed by June 1.

The information on financial aid contained in this catalog is subject to change or deletion as circumstances warrant.

### **FINANCIAL AID APPLICATION REQUIREMENTS**

To be considered for financial aid, a student must complete and submit all information no later than May 31 preceding the academic year for which application is made. Applications and information received after this date will be reviewed as funds are available. The following information is required:

#### **1. Free Application for Federal Student Aid (FAFSA)**

Students are required to complete the FAFSA in order to be considered for a financial aid award. The FAFSA may be obtained at any public library, high school, college, university or any financial aid office, including NSU. The Department of Education has made the FAFSA available on-line at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). The FAFSA cannot be signed or mailed until January 1 of the academic year.

#### **2. Verification of Taxable and Non-Taxable Income**

Upon request, students and parents may be required to submit a copy of their current federal tax return and W-2 form(s). Non-taxable income such as social security, veteran's benefits, Aid to Dependent Children, etc., must be verified by submitting a written statement from the agency of certification. Students and parents with zero incomes must submit a notarized statement indicating source of support.

#### **3. Graduate and Professional School Financial Aid Services**

Graduate students are required to complete the FAFSA.

#### **4. Student Aid Report (SAR)**

Once the FAFSA is received and processed, the Federal Pell Grant processor will mail the applicant a report titled Student Aid Report (SAR), and the Financial Aid Office will download data into the Colleague system to build the student's financial aid file.

#### **5. Federal PLUS Applications**

Financial aid funds are limited and cannot meet the demonstrated needs of all students applying for financial aid. Because of this, parents may apply for a Parent Plus Loan. To apply for a Parent Plus Loan, parents must complete an application. The loan applications are available at banks, credit unions, savings and loan associations, and the NSU Office of Financial Aid. The application must be completed and submitted to the Financial Aid Office for processing.

### **MINIMUM ACADEMIC PROGRAM STANDARDS FOR FINANCIAL AID ELIGIBILITY**

#### **1. General Qualifications**

In order to receive grant, loan or work assistance, a student must maintain satisfactory academic progress in the course of study the student is pursuing at the University. Students who fail to maintain satisfactory progress may not receive any institutional, federal, or state grants, scholarships, or work-study assistance.

Neither incompletes (I) nor course withdrawals (W) will count toward hours earned but will count toward hours attempted. Repeated courses will count toward hours earned if:

- a. a passing grade was received, and

b. the course had not been counted previously toward hours earned.

2. Undergraduate Students

- a. The minimum academic standards required of all full-time undergraduate students to maintain eligibility for continued financial aid is indicated in Paragraph I, above.
- b. To be considered full-time, an undergraduate student must be enrolled for a minimum of 12 credit hours per semester.

3. Part-time Undergraduate Students

- a. A student enrolled in fewer than twelve (12) semester hours is considered a part-time student. A student with a classload of nine to eleven (9 - 11) semester hours is classified as three quarter (3/4) time; a student with a class load of six to eight (6 - 8) semester hours is classified as half time. The classification is based upon the number of semester hours for which the student is officially enrolled on the last day for adding classes as published in the Norfolk State University Registration Information and Schedule of Classes booklet for the appropriate semester.
- b. Financial aid eligibility for students who are enrolled less than full-time will be calculated on a prorated basis using the Academic Classification table shown below for full-time students. Part-time students also must meet and maintain all requirements as established by University, federal, and state guidelines.

### STANDARDS OF SATISFACTORY ACADEMIC PROGRESS FOR FULL-TIME UNDERGRADUATES

Norfolk State University is required by federal regulations to adhere to minimum standards of satisfactory academic progress (SAP) that relate to a student's eligibility for federally funded financial aid programs, including state, federal and institutional grant(s), scholarships, employment, and loan programs. Students must meet minimum satisfactory academic progress standards in order to receive and maintain eligibility for Title IV funds. The satisfactory academic progress standards apply to all students in degree seeking programs of study who wish to be considered for financial assistance. SAP is a qualitative as well as a quantitative measurement of courses attempted and courses completed. Completed hours must equal 67% of hours attempted to meet SAP standards.

Students must attain at least the minimum cumulative grade point average required for the number of credits earned for the academic classification level and must make satisfactory progress towards degree completion by advancing to the next academic classification level. Failure to maintain or exceed the minimum cumulative grade point average will result in the cancellation or denial of financial assistance. The minimum grade point average for each classification level is indicated below:

Academic Classification for Full-Time Students

Level	Total Credit Hours Earned	Cumulative Grade Point Average
Freshman	Fewer than 30	1.7 or higher
Sophomore	30 - 59 credit hours	1.8 or higher
Junior	60 - 89 credit hours	2.0 or higher
Senior	90 or more credit hours	2.0 or higher
Graduate	XXXXXXXXXX	3.0 or higher

These minimum standards must be met in order for a student to be considered for any state, federal, or institutional financial assistance. Aid will be terminated for any student who does not maintain the minimum standard or qualitative measurements.

### ENROLLMENT STATUS

For financial aid purposes, enrollment status is based on the following listed information:

No. of Credit Hours	Undergraduate	Graduate
Twelve (12) or more hours	Full time	Full time
Nine (9) to eleven (11) hours	Three-Quarter time	Full time
Six (6) to Eight (8) hours	Half time	Half time
Three (3) to Five (5) hours	Less Than Half Time	Less than Half Time

Enrollment status is based on the number of credit hours for which students enroll for each academic term. Undergraduate and graduate students may be considered for financial assistance based on the number of credit hours enrolled for each term. If enrolled less than full-time, aid may be pro-rated based on reduced cost of attendance. If enrolled less than half time, only undergraduate students with Pell eligibility may be considered for assistance.

### TO REINSTATE ASSISTANCE

In order to regain financial aid eligibility, students must enroll in classes at their expense in order to advance their cumulative grade point average to the minimum satisfactory academic standard. After successfully obtaining the



minimum satisfactory academic standards in accordance with their classification level, students may be reinstated or considered for financial assistance for upcoming terms. It is the students' responsibility to notify the Financial Aid Office when they have attained a cumulative grade point average that meets the minimum satisfactory academic progress requirement in the allotted time frame for awarding aid for the upcoming term.

### **RIGHT OF APPEAL**

In order to appeal the decision of denial by the Financial Aid Office, students may submit a letter of appeal, along with all supporting documentation, to the Financial Aid Appeals Committee in the Office of the Associate Vice President of Enrollment Management, 510 Harrison B. Wilson Hall or mail letter of appeal, along with all supporting documentation, to Financial Aid Appeals Committee, Norfolk State University, 700 Park Avenue, Norfolk, VA 23504. Letters of appeal, along with all supporting documentation, may be faxed to (757) 823-2057.

**Note:** The letter of appeal must be submitted in writing and must include the student's name, social security number, signature, address, and a detailed explanation addressing the extenuating circumstances leading to satisfactory academic progress standards not being met.

Supporting documentation of circumstances or explanation may be required for reinstatement. It is strongly recommended that students submit with the letter of appeal any supporting documentation. The Financial Aid Appeals Committee meets on the first and third Friday of each month to make decisions regarding satisfactory academic progress appeals.

A response to the student's appeal will be forwarded to him or her and a copy of the response will be forwarded to the Financial Aid Office. The letter of appeal and supporting documentation will be retained in the student's financial aid file.

## **TYPES OF AID, GRANTS AND SCHOLARSHIPS**

### **1. Federal Pell Grant**

Federal Pell Grants are available to undergraduate students only and are administered by the Federal Pell Grant Office. Eligibility indices are determined by the Pell Grants Office based on data submitted by the applicant and/or family. Norfolk State University will permit a student to receive a Federal Pell Grant no more than the equivalent of 12 semesters. The student must be enrolled for at least 3 semester hours.

### **2. Federal Supplemental Educational Opportunity Grant (FSEOG)**

Federal Supplemental Educational Opportunity Grants are awarded to students who have financial need and are available to undergraduate students only with a maximum award of \$4,000 per academic year. FSEOG is awarded to students with the highest need levels. Priority is given to students who are enrolled full-time and are Pell eligible.

### **3. College Scholarship Assistance Program (CSAP)**

Student must be enrolled the academic year for which the award is to be received, as at least a half time undergraduate in a degree program; student must also be a bona fide domiciliary resident of Virginia; student must demonstrate sufficient financial need; student's course of study shall not be in religious training or theological education; student must be maintaining satisfactory progress; student must advance to next classification in order to be considered for CSAP.

### **4. College Departmental Activities Scholarships**

College Departmental Activities Scholarships are administered by certain college departments. However, all students applying for and receiving financial aid can receive financial aid only in an amount representative of the difference between the scholarships and the derived need of the student.

### **5. Commonwealth Award**

Commonwealth awards are available to Virginia students who have an overall average of "C" or better and show evidence of need. Awards are renewable for three subsequent years as long as the student advances to the next classification and funds are available. Student must be enrolled at least half-time, and awards may not exceed the cost of tuition.

### **6. Graduate Fellowship (GF)**

Graduate fellowships are limited fellowship awards to graduate full-time students on the basis of merit (3.0 or better GPA) and/or financial need. Interested graduate students should contact their department or the Office of the Dean for Graduate Studies. The scholarships may not exceed the cost of tuition.

### **7. NSU Foundation Scholarship Program**

The purpose of the NSU Foundation Scholarship Program is to attract and retain students who have distinguished themselves by their scholarly achievements and their personal qualities. The program will make provisions for the awarding of scholarships valued at \$2,000 each. Students nominated for the scholarship must be enrolled full-time. For additional information about the program, call or write the Office of Academic Affairs, Norfolk State University, (757) 823 8408.

**8. Army ROTC Scholarship Program**

The ROTC Program provides financial assistance for the undergraduate education and training of highly qualified and motivated young men and women who desire to pursue careers as commissioned officers in the United States Army after graduation from college. For additional information about the program, call or write the Army ROTC Department, Norfolk State University, (804) 623 8541.

**9. Navy ROTC Scholarship Program**

The Naval Reserve Officers Training Corps (NROTC) Program provides opportunities for young men and women to qualify for commissions in the United States Naval Reserve while attending college. The NROTC Scholarship Program provides tuition and other financial benefits. It is a highly competitive program maintained for one purpose – to educate and train qualified young men and women for service as commissioned officers of the regular Navy and Marine Corps. For additional information, call or write the Navy ROTC Department, Norfolk State University, (757) 823 8895.

**10. Virginia Guaranteed Assistance Program (VGAP)**

The Virginia Guaranteed Assistance Program is available to Virginia students. This scholarship is renewable for three years; the student must have a 2.5 high school grade point average and be enrolled full-time as a needy, dependent student/orphan or ward of the court. The student must also complete at least 12 hours per semester, with at least a 2.0 grade point average to renew the award.

**LOANS****1. Federal Direct Loans**

These loans do not involve private lenders. Students borrow directly from the federal government. They automatically apply when they complete the FASFA.

The interest rate is calculated as the bond equivalent rate of the 90-day treasury bills auctioned at the final auction before June 1, plus 3.10 percent. The interest rate may not exceed 8.25 percent. The interest rate is specified in the disclosure statement when a loan is disbursed. The variable interest rate is recalculated annually, effective July 1 of each year. An undergraduate student may borrow a maximum of \$2,625 for the first year, \$3,500 for the second year, and \$5,500 for the junior and senior years of undergraduate study. Graduate students are permitted to borrow up to \$8,500 a year.

If a student has a Subsidized Federal Direct Loan (need-based), the federal government pays the interest on the loan while he or she is in school. If a student has an Unsubsidized Federal Direct Loan, he or she will be responsible for the interest during in-school and deferment periods.

**2. Carl D. Perkins Loans NDSL (Federal Perkins Loan)**

A long term, low interest loan program for needy students who may borrow up to a total of (a) \$4,000 per year; (b) maximum \$20,000 for the total undergraduate program; (c) \$40,000 for graduate/professional students, including undergraduate amount. Students accepting NDSL assistance should be aware of their repayment responsibilities. Repayment of principal begins nine months after the student graduates or leaves school for other reasons. Funding of the Perkins loan is contingent upon past borrowers repaying the loan.

**3. Virginia State Student Loan (VSSL)**

The General Assembly has allocated funds to the University for loans to eligible students who are Virginia residents and enrolled full-time. Awards may not exceed the cost of tuition and fees per academic semester. Repayment begins six months following graduation, withdrawal, or the student's failure to carry at least a half time academic work load.

Prior to graduation or withdrawal, each student must make arrangements for repayment of his or her outstanding loan within the maximum repayment period of five years. A minimum monthly repayment of \$30.00 is required.

**4. Federal PLUS Loans**

Annual Loan limits: Cost of attendance minus other aid.

**EMPLOYMENT****1. Federal Work-Study Program (FWS):**

The College Work-Study Program provides jobs for students who must earn a part of their educational expenses. Priority is given students enrolled on at least a half-time basis. Students will be expected to perform the work that is agreed upon when accepting the FWS award. Students may not earn more than the amount in their award letter, and can work a maximum of 20 hours per week while classes are in session, and not more than 40 hours per week during other periods of time. The Office of Financial Aid will notify work-study recipients of their agency of employment by the start of the academic year or semester. It is the student's responsibility to ensure that a properly completed work-

study time record sheet be submitted to the Office of Financial Aid by noon of the last working day of each month, unless otherwise directed.

## **2. Norfolk State Work-Study Program (NSWP):**

The Norfolk State Work-Study Program provides jobs for students who must earn a part of their educational expenses. Need becomes a criterion for eligibility if the student is receiving funds from federal or state resources. Students must be enrolled at least on a half-time basis; however, priority is given students enrolled full-time. Students will be expected to perform the work that is agreed upon when accepting the NSWP award. Students may not earn more than the amount in their award letter, and can work a maximum of 20 hours per week while classes are in session, and not more than 40 hours per week during other periods of time. The Office of Financial Aid will notify work-study recipients of their agency of employment by the start of the academic year or semester. It is the student's responsibility to ensure that a properly completed work-study time record sheet be submitted to the Financial Aid Office by noon of the last working day of each month, unless otherwise directed.

## **OTHER SOURCES**

### **1. Social Security Benefits**

Students eligible to receive social security benefits should contact their local Social Security Office for more information.

### **2. Veterans Benefits**

Students may apply for educational benefits through the VA Vocational Rehabilitation Program. Dependents of some disabled or deceased veterans may qualify for educational benefits. For more information, contact the Veterans Affairs Office on the campus.

### **3. State Vocational Rehabilitation**

Disabled or handicapped persons may qualify for educational assistance through the Virginia Department of Vocational Rehabilitation. These persons are required by the Department to apply for financial assistance through Norfolk State University.

### **4. Active Duty Personnel**

Active duty military personnel may qualify for either VA Assistance or the Tuition Aid Program of the Armed Forces which provides partial payment of tuition costs. For information about the VA Assistance, contact the Veterans Affairs Office on campus. For information about the Armed Forces Tuition Aid Program, contact your Educational Services Office.

### **5. Virginia War Orphans Education Program**

The Virginia War Orphans Education Program provides educational assistance for children, or surviving children of certain veterans or service personnel. To be eligible for assistance under this program, an applicant must meet the following basic eligibility requirements:

- a) The applicant must be no less than sixteen (16) years of age, or no more than twenty-five (25) years of age.
- b) One of the applicant's parents must have served in the armed forces of the United States; and must be permanent and totally disabled due to an injury or disease incurred in a time of war or other period of armed conflict; or
- c) One of the applicant's parents must have died as a result of injury or disease incurred in a time of war or other period of armed conflict; or
- d) One of the applicant's parents must be listed as a prisoner of war or missing in action.
- e) The applicant's parent, on whom eligibility is based, must have been a resident of the Commonwealth of Virginia at the time of entry into active military duty; or
- f) The applicant's parent, on whom eligibility is based, must have been a resident of the Commonwealth of Virginia for at least 10 consecutive years immediately prior to the date of application.
- g) The applicant must provide written verification attesting to his or her acceptance as a student in either a state-supported secondary or post secondary educational institution.

Eligible individuals are entitled to a maximum of forty eight (48) months of tuition free education at state-supported educational or training institutions. Individuals entitled to this benefit may utilize it to pursue any vocational, technical, undergraduate, or graduate program of instruction. Generally, programs listed in the academic catalogs of state supported institutions are acceptable provided they have a clearly defined educational objective, i.e., certificate, diploma or degree.

Requests for applications should be directed to the Director, Division of War Veterans' Claims, Commonwealth of Virginia, 210 Franklin Road, S.W., Roanoke, VA 24011. If possible, applications should be submitted at least four (4) months before the expected date of matriculation.

**6. Part-Time Employment:**

The University keeps in close contact with local business concerns through which many students are placed in positions which offer remuneration for work experience.

**VETERANS**

Veterans enrolling under the Veterans Readjustment Benefits Act of 1966 or under other federal programs may enroll in special college and terminal curricula. Special counseling and guidance are available in the Office of Veterans Affairs.

Since the University receives no funds from the government for tuition and fees for veterans studying under the Readjustment Benefits Act of 1966, students registered under such authorization must make payments according to the schedule of fees.

ADDITIONAL INFORMATION ABOUT FINANCIAL AID PROGRAMS CAN BE SECURED FROM THE FINANCIAL AID OFFICE AT NORFOLK STATE UNIVERSITY BY VISITING NSU'S WEBSITE AT [WWW.NSU.EDU](http://WWW.NSU.EDU) AND BY CHECKING THE FEDERAL WEBSITE AT [WWW.FAFSA.ED.GOV](http://WWW.FAFSA.ED.GOV).

**STUDENT REFUNDS**

Students who present a certified check or money order for an amount in excess of their obligation to the University should expect to receive the difference in the form of a University check mailed within seven working days.

Refunds are given ONLY after all University obligations are paid in full. Financial aid awarded but not received by the University is not considered in the refund calculation.

Refunds due as a result of direct overpayment or reduction in course load will be processed upon receipt of a refund request in the Office of Student Financial Services. The refund process begins after the add period ends and requires seven working days.

All refund checks will be mailed. If a local or campus address is not provided, the refund check will be mailed to the permanent address on file with the University.

The financial aid disbursement process occurs each week. Refunds generated as a result of financial aid posting are mailed at the end of each week.

**PRO-RATA REFUND POLICY**

Tuition charges are adjusted on a pro-rata basis for students who withdraw from NSU during the first nine weeks of the fall and spring semesters and the first three weeks of the summer session.

Students who fail to adhere to the published deadlines when withdrawing from the University or dropping classes will be charged the appropriate tuition charge and receive a failing grade (F). Non-attendance does not constitute an official withdrawal from the University.

Withdrawing from the University or dropping classes below full-time or part-time status may result in a reduction or cancellation of financial aid awards.

See Course Schedule booklet for Pro-Rata Refund Schedule.

**BILLINGS**

The University sends multiple statements each semester to students who have an outstanding balance or have had activity on their accounts during the statement period. The statement will show the balance brought forward and detail the activity for the period covered.

Questions pertaining to bills or financial aid should be directed to the Office of Student Financial Services, Room 130 H. B. Wilson Hall, (757) 823 8381.

**DELINQUENT ACCOUNTS**

Students who fail to honor payment arrangements or have balances resulting from incomplete or canceled financial aid will be charged a late payment fee of \$30. Grades, transcripts, diplomas, certifications, and non-mandatory verifications will be withheld. Payment in full will be required.

Delinquent accounts are referred to collection agencies and/or attorneys and are reported to the credit bureau. The University is permitted under Virginia Law to attach Virginia State income tax refunds and lottery winnings in repayment of any debt which is owed to the University. In the event an account becomes delinquent, the student is responsible for all reasonable administrative costs, collection fees, and attorneys' fees incurred in the collection of funds owed to the University.

**RESIDENCE HALL FINANCIAL INFORMATION*****DAMAGE DEPOSIT***

Students who desire to live in the residence facilities will be required to pay a non-refundable residential room deposit of \$300. Students living on campus for the first time pay a \$200 room deposit, which is used to reserve their room, and a one-time \$100 residential damage deposit.

***FINANCIAL ARRANGEMENTS***

Students must confirm housing arrangements before arrival by completing a Residential Life application and paying the \$300 deposit.

Students must make satisfactory payment arrangements before room key is issued.

***FINANCIAL OBLIGATIONS AND REGISTRATION***

Students are required to fulfill their financial obligations for tuition, fees, room and meals for each semester of enrollment. Prior balances must be paid before students will be allowed to register for classes in subsequent semesters. Payment arrangements for the current semester must be in place to complete the registration process and prevent the deletion of class schedules. Returning students will not be allowed to obtain a key to residence halls until payment arrangements are in place and financial clearance is given.

All prior balances must be paid before a student is allowed to register for a future semester.

If Residential Life room and meal charges do not appear on the Registration or Account Statement, contact the Office of Residential Life at (757) 823-8407.

The \$100 deposit does not apply to room and board charges or other fees. It is retained in a damage account as long as the student resides in the University's residence halls and there are no damages.

Refunds for room reservation deposits will be made for the following reasons:

1. Space is not available to accommodate the student;
2. The student is called for active duty prior to the first day of class;
3. The student is deceased; or
4. The prospective student is not admitted to the University.

Unclaimed deposits will be reported to the Commonwealth of Virginia Department of Treasury's Division of Unclaimed Property.

**SPECIAL NOTICE: Should conditions warrant, the administration reserves the right to adjust fees and charges without advance notice.**

***STUDENT ACCIDENT INSURANCE PLAN***

All full-time undergraduate domestic students (U.S. citizens and permanent residents) and all international students (full and part-time) will be required to have some form of accident insurance in order to attend classes. Students will automatically be enrolled in the accident only portion of the Student Accident and Insurance Plan sponsored by the University.

The annual premium of \$100 will be assessed to each qualifying student in two equal installments of \$50 each semester.

During the first semester of each academic year, students will have the option of waiving enrollment in the accident insurance plan if they are covered by another insurance company. An Insurance Enrollment Waiver Form is available in the Office of Student Financial Services.

The insurance Enrollment Waiver Form, along with the required documentation, must be returned to the Office of Student Financial Services by the deadline date.

The charge can be waived only during the first semester of enrollment for the academic year.

***STUDENT ADDRESS INFORMATION***

Students are responsible for advising the University of a change of address or corrections. Students may change address information at the Office of Student Financial Services or the Office of the Registrar.

***BOOKSTORE AUTHORIZATION***

Students receiving financial aid may be eligible to receive a bookstore authorization to purchase books and supplies.

If awarded grants and Ford Direct Loans exceed the total tuition, fees, room and meal cost, funds may be put on the Spartan Card (debit card) for books and supplies. Students must be registered and have a current Spartan Card.

To obtain a book authorization, student should go to the Office of Student Financial Services in H.B. Wilson Administration Building, Room 130.

**BOOKS/SUPPLIES**

Books and supplies are not included in the cost of tuition and fees. Students should be prepared for this expense on the first day of class. Textbooks and supplies may be purchased in the University Bookstore located in the Mills E. Godwin (Student Union) Building.

**DIVISION OF RESEARCH AND TECHNOLOGY**

**Adebisi Oladipupo, Vice President for Research and Technology**  
**(757) 823-2144**

The mission of the Division of Research and Technology is to be a responsive and responsible customer-centered organization that enables and empowers its client (the Norfolk State University community) to effectively accomplish its business unit goals.

**OVERVIEW**

The Division of Research and Technology is primarily responsible for the planning, implementation, and utilization of technology for an effective and efficient discharge of the University's business. The Division is also responsible for acquiring external funding support for sponsored program activities and for encouraging and sustaining faculty and staff interests in these endeavors.

The Research and Innovation to Support Empowerment (RISE) project is intricately linked to the Division of Research and Technology in that RISE is underpinned by technology and research. Also, the Division is the primary interface between NSU and the Enterprise and Empowerment Foundation (E2F) that oversees the RISE project.

The Division of Research and Technology consists of the following units: Office of Information Technology (OIT), Enterprise Information Systems (EIS), Office of Sponsored Programs (OSP), Media Services, Telecommunications, and the Educational Technology Services (ETS) group, which is currently under OIT.

**COMPUTER SERVICES (OIT and EIS)**

**(757) 823-8678 – Helpdesk**

Computer Services at Norfolk State University are handled by two departments, OIT and EIS. OIT handles primarily all networking issues (infrastructure development, deployment, and maintenance) while EIS handles the administrative computing needs (all Enterprise Resource Planning systems).

**EDUCATIONAL TECHNOLOGY SERVICES (ETS)**

This unit handles the management of all web-based and web-enabled online courses. It also manages the BlackBoard course management system and trains end-users in its effective utilization. This unit is poised to handle niche areas in distance learning initiatives at Norfolk State University.

**SPONSORED PROGRAMS (OSP)**

This is the unit with administrative oversight for Norfolk State University grant, contract, and other sponsored program activities.

Sponsored Programs is the primary interface for all departments and units within the University for all local, state, federal, and quasi-governmental funding agencies, corporations and other entities that provide research projects and other sponsored programs. This excludes programs for charitable gifts, endowments, and all other forms of private giving, all of which are managed by the Division of University Advancement.

The mission of Sponsored Programs is to shepherd programs and funds into and through the University and to assist in developing and maintaining the intellectual base required to competitively seek external funding. This office seeks, pursues, solicits and manages funding opportunities for all research and other sponsored program activities University-wide.

**MEDIA SERVICES**

Media Services is responsible for maintenance and programming of the WNSU-TV Radio, maintaining the Satellite Uplink and Downlink, developing and updating "smart" electronic classrooms on campus, supporting the Department of Mass Communications and Journalism, providing adequate media records of important University events, and supporting the University in its marketing efforts.

**TELECOMMUNICATIONS**

This unit is responsible for all telecommunication service on campus, including cell phones and desk phones. It also supervises the acquisition and utilization of these devices.

**DIVISION OF STUDENT AFFAIRS**

**Larry Curtis, Vice President for Student Affairs**  
**(757) 823-8141**

The Division of Student Affairs is the central administrative unit responsible for the coordination and direction of student programs, services and activities outside the classroom. The departments within the Division are dedicated to recognizing and providing for the needs of each student while stimulating student development outside the classroom. Other goals are aimed at preserving the rights of each individual student; fostering respect and communication among different cultures; maintaining a continued process of self-assessment; and adapting objectives to meet the needs of the student body while supporting the educational mission of the University.

**CAREER SERVICES**

**(757) 823-8462**

Career Services is responsible for the overall planning, development, and implementation of the University's career services program for students and alumni. The office is located in rooms 306/311, Mills E. Godwin, Jr. Student Center.

Functions include:

1. Identifying and developing employment opportunities;
2. Maintaining e-Campus Recruiter, a database of job opportunities that allows students to upload resumes and apply for jobs;
3. Providing career counseling and advising;
4. Preparing students to successfully transition from the classroom into a professional career, including the development of job search strategies, resume writing, and interview skills;
5. Planning and conducting professional seminars;
6. Planning and coordinating on-campus recruitment programs and job fairs;
7. Developing internships and co-operative education opportunities.

Students must register with Career Services to receive all available services. Seniors are encouraged to register and maintain a credentials file with the office as they seek career positions upon graduation.

**COUNSELING CENTER**

**(757) 823-8173**

The Counseling Center provides a range of counseling services for Norfolk State University students at no charge. Services include individual, group, and crisis counseling, as well as educational outreach programming.

Counseling Services are confidential. The Counseling Center does not release information about a student without the student's written permission, except in cases of imminent danger to self or others, child/dependent abuse, court order, or otherwise required by law. Counseling records are not part of academic records, and access to them is limited to authorized staff in the Counseling Center. As required by Virginia law, student counseling records are maintained for at least seven (7) years.

Counselors are available to consult with students, parents and staff about issues that affect student life. Adjustment difficulties, depression, troubled relationships, and the inability to manage stress are a few reasons students seek counseling services. During a crisis, counselors are dispatched to provide emergency intervention and support for affected community members. Crisis counseling is available to students 24 hours per day, seven days per week.

The Counseling Center staff includes both male and female professional counselors as well as graduate student interns working under close supervision. All counselors are trained and experienced in addressing issues common among university students. Appointments can be made by phone or in person. For additional information, please visit the Counseling Center in Room 309, Mills E. Godwin Student Center, or call (757) 823-8173.

**Substance Abuse Services**

The Counseling Center offers substance abuse services in the form of assessment and individual and group counseling. The staff is trained to respond effectively to students who are personally affected by alcohol or drug use. Substance abuse education and prevention programs, including National Alcohol Screening Day, are also administered by the Counseling Center.

**DISABILITY SERVICES DEPARTMENT (DSD)**

**(757) 823-2014/2409**

The mission of the Disability Services Department is to promote the academic success of students with disabilities (SWD) through high-quality educational assistance; faculty and staff seminars; workshops and training, and assistive



technology training for students, faculty, staff and administrators. The department is committed to complying with both the Americans with Disabilities Act (ADA) of 1990 and Section 504 of the Rehabilitation Act of 1973.

***Supporting Students Through Disability Services (SSDS)***

The SSDS program assists currently enrolled students with documented disabilities including physical disabilities, psychological disabilities, traumatic head injuries, learning disabilities and other health concerns. Services include counseling, rehabilitation, note-sharing, and priority seating.

All contacts with SSDS are held in strict confidence, and information is released only with the student's permission.

***Assistive Technology Laboratory (AT Lab)***

The AT Lab exists to support the enhancement of student outcomes through the delivery of information, training, and support through the use of assistive technologies. Students with documented disabilities who are enrolled in the SSDS program are given access to the AT Lab where they are able to utilize specialized hardware, software and other technologies that level the playing field in their endeavor to excel.

A complete list of services and accommodations provided through the SSDS program and within the AT Lab is available from Disability Services and the Norfolk State University Student Handbook.

***INTERNATIONAL STUDENT AND SCHOLAR SERVICES  
(757) 823-8447***

The Office of International Student and Scholar Services serves to assist international students and scholars with matters related to immigration as well as to promote international education and intercultural understanding. The office circulates immigration information and acts as a referral source for students, staff, faculty, and the community. Services include issuing visa documents; advising students, scholars and faculty; processing immigration petitions; serving as a liaison between the international student/ scholar and the university/government agencies; and providing support services and education to enhance student success.

More information is available from the Office of International Student and Scholar Services and the Norfolk State University Student Handbook. The office is located in Room 330, Harrison B. Wilson Hall.

***JUDICIAL AFFAIRS  
(757) 823-8222***

The NSU Judicial System serves to maintain order and discipline essential to student success. The Office of Judicial Affairs oversees proceedings in accordance with Student Disciplinary Policies and Procedures.

Students are expected to make themselves aware of and abide by the University community's standards of behavior as articulated in the NSU Student Disciplinary Policies and Procedures and in related policy statements. Students accept the rights and responsibilities of membership in the NSU community when they are admitted to the University. For more information, visit the Office of Student Services/Judicial Affairs in Room 325, Godwin Student Center.

***RESIDENCE LIFE & HOUSING  
(757) 823-8407***

Living in the residence halls provides a great opportunity for students to interact with people from different backgrounds, get involved with campus life, enhance personal growth and development, and create friendships that will last a lifetime. Resident students share the responsibility for abiding by all University policies and respecting the rights of other residents.

***Staff***

Each residence hall is staffed with a residence hall director, a graduate assistant (GA), several administrative office specialists, and a student resident assistant (RA) assigned to each floor. The residence hall staff has the responsibility of administering and enforcing University policies and regulations, while acting as a listener, mediator, and resource person.

***Living on Campus***

All students who live in residence halls are members of the Residence Hall Association (RHA). Freshmen On-Campus Achieving Success (FOCAS) is a program designed for freshman resident students to assist with the transition from high school to college life. This program focuses on four key areas of concentration: academics, socialization, multiculturalism and mentorship. The program is voluntary and is administered by the Office of Residence Life and Housing. Students can sign up for the program by contacting [housing@nsu.edu](mailto:housing@nsu.edu) or (757) 823-8407.

**Payment of Fees**

A non-refundable housing deposit of \$300.00 must be received from the student by the deadline date, (May 31st for fall entry, November 1st for spring entry) to reserve on-campus housing. Only applications accompanied by deposits will be considered. No bed spaces are guaranteed after the deadline dates.

Upon receipt of your bill from NSU, the entire room and board balance must be paid in full or payment arrangements made with the Office of Student Accounts by the respective May 31st/November 1st deadline date. To inquire about their individual accounts, students should contact the Student Financial Services at (757) 823-8381.

Cashier's checks or money orders should be made payable to Norfolk State University. The student's social security number and name must be included on his/her money order or cashier's check. Personal checks are accepted for first-time freshmen only.

Students are required to occupy their assigned room on or before the first day of classes. Failure to do so could result in the loss of on-campus housing.

**Roommate Request(s)**

Requests for roommates will be honored, to the extent possible, provided the request is mutual and in writing, deadlines for fees are met, and each person making the request meets all requirements for living in the desired residence hall.

**Occupancy of Rooms**

Students are required to occupy their rooms on or before the first day of classes or they will forfeit their room reservation.

**Check-In**

Prior to checking into the residence hall, each student should have completed all financial arrangements at the Business Office. All discrepancies in the room must be noted and reported to the residence staff prior to occupancy to avoid any unwarranted charges. The staff will issue keys/combination and telephone numbers to the students assigned their respective residence hall.

**Housing During Breaks**

All residence halls will be officially closed during the Thanksgiving, winter, spring and summer breaks (except Spartan Suites). Continuing residents and graduates will receive updated information with specific dates and times they must vacate their respective residence hall.

**Withdrawal Procedures**

Those who withdraw from an NSU residence hall must contact the assigned residence hall personnel. Residents are responsible for removing all personal possessions and for cleaning their rooms, which must be verified by the residence hall director. The student is responsible for completing all paperwork to finish the withdrawal process.

There will be a \$100 charge for all rooms/suites not cleaned and a \$75 per key charge for all keys not returned. Both offenses are subject to possible sanctioning that could prohibit future residency in the residence halls. In addition, students withdrawing from the residence halls will incur a \$50 charge for improper check-out if they fail to complete any part of the withdrawal process. Students should contact their respective graduate assistant or residence hall director if they have questions.

**Check-Out Procedures**

Prior to student check-in and upon checkout, each residence hall will have staff assigned to check the condition of the room/suite. Damages and other discrepancies will be noted on the back of the resident's card. Normal wear is not penalized. Should the resident in violation not be known, all residents assigned to the room will be charged. Each resident assigned to a room/suite is responsible for cleaning his or her side of the room. Rooms and/or suites must be clean and free of all trash. Students housed in suites must ensure that the bathrooms are clean. Charges will be assessed for broken, damaged, misplaced, or out-of-area furniture.

Failure to follow correct check-out procedures will result in a fine and possible sanctioning that prohibits future residency in the residence halls.

**Off-Campus Housing**

The University has an off-campus housing referral listing to aid students in finding privately owned accommodations. Referrals are available in the Housing Office. Information is available about rooms, houses and apartments that are available to students. Contracts or agreements are private matters between the student and the landlord and not Norfolk State University. Students are urged to make living arrangements well in advance of the beginning of the semester.

**Violation of Residence Hall Rules and Regulations**

It is recognized that living in groups requires a certain level of tolerance and conformity by all concerned. Rules controlling conduct within housing owned or controlled by the University are promulgated by the Office of Residence

Life and Housing to enhance the safety and comfort of everyone living in the residence halls. These rules, along with procedures for their enforcement and applicable sanctions, are published in the Residence Hall Handbook available from the Office of Residence Life and Housing. The Norfolk State University Code of Student Conduct and disciplinary procedures apply to all students, including those who live in the residence halls. Alleged violations of the Code by residence hall students will be forwarded to the vice president for student affairs or his/her designee.

### **SPARTAN HEALTH CENTER** **(757) 623-3090**

Student health services are provided by InoMedic. Basic health services provided under the student health program include diagnosis and treatment of minor illnesses and injuries, provision of selected over-the-counter medication and medical supplies, supervised care in designated observation beds, general and emergency medical services, health education counseling, maintenance of immunization/health history records, provision of forms and materials on preventive health, mental health, and other health-related areas, and injections of allergy serum (at students' expense). Should a student require consultation with a specialist, the health care provider at the Center will refer the student to a local practitioner. Students insured under the Norfolk State health plan will be referred within the Beech Street Network when possible. The Center is staffed with highly skilled health care professionals including physicians, nurse practitioners, and nurses.

The costs for the health care services listed above are paid by the University for students who are enrolled full-time. Costs incurred for care that exceeds the services listed above must be paid by the student. Students are encouraged to purchase health insurance to cover the cost of specialty referrals or hospitalization.

It is recommended that any necessary dental and/or eye examinations be done prior to coming to the University, as the Health Center cannot provide these services.

The Spartan Health Center does not operate a pharmacy. Prescriptions can be filled at local pharmacies.

#### ***Emergency Care***

When a serious or life-threatening illness or injury occurs on campus, the NSU Campus Police Department should be contacted immediately by calling 823-9000. If emergency medical transportation is needed, the Police Department will make the necessary arrangements to ensure that the individual is taken to the nearest urgent health care facility. The expense of this care will be borne by the student.

#### ***Location and Office Hours***

The Health Center is housed in the Spartan Station at the east end of the campus. It is open Monday through Friday from 8:00 a.m. to 5:00 p.m. Students who become ill after hours of operation should call 623-3090 for instructions. Sick-call hours will be from 8:00 a.m. to 10:00 a.m. for the acutely ill. Acutely ill is defined as new onset of sickness such as fever, diarrhea, urinary problems, and upper respiratory problems.

#### ***Appointments***

Students should call for an appointment to ensure that they receive prompt treatment. However, students with new onset illnesses will be seen on a walk-in basis between scheduled appointments, whenever possible.

#### ***Confidentiality***

The relationship between a clinician and the patient is strictly confidential. To ensure this, the Spartan Health Center will not release files or information to anyone, including university officials, relatives, or prospective employers, without the expressed written consent of the patient. Only upon issuance of a legal subpoena will records be provided without the patient's authorization.

#### ***Medical Excuses***

Written statements verifying a student's visit to the Health Center will be issued, if necessary, at the discretion of the Health Care Provider. An official university excuse may be obtained from the Office of Student Services/Judicial Affairs.

#### ***Health Insurance***

Due to the high cost of health care, it is strongly recommended that all students be covered by some form of health insurance. This may be as a dependent on a family plan or through student health insurance coverage offered by the University.

The university plan has two options: (a) an Accident Medical Expense Benefit Plan (**mandatory**), and a Sickness Medical Expense Benefit Plan (**optional**). Information about the NSU student insurance plan may be obtained at the Spartan Health Center or the Office of Student Services/Judicial Affairs.

#### ***Health History/Record of Immunizations***

Virginia State Law (Sec. 23-7.7) and Norfolk State University require all full-time entering and returning students to provide documentation of immunizations and a completed health record form. The information on this health record

is needed to both protect the health of the university community and to assist the Spartan Health Center staff in providing comprehensive medical care for students.

**STUDENT ACTIVITIES**  
**(757) 823-8200**

The Office of Student Activities is responsible for the coordination and implementation of a creative, responsive, and diverse co-curricular program at Norfolk State University.

Norfolk State University strives to cultivate individuals who have not only mastered academic coursework, but have also developed active interests and skills in interpersonal relations. To assist with this mission, the University promotes a wide range of student organizations and activities. Students are encouraged to participate in the following academic, social, athletic, literary, and religious activities:

**OFFICIALLY RECOGNIZED STUDENT ORGANIZATIONS**

Accounting Association  
Airway Science Club  
Alpha Delta Mu National Social Work Honor Society  
Alpha Epsilon Rho  
Alpha Eta Rho Fraternity, Inc.  
Alpha Kappa Alpha Sorority, Inc.  
Alpha Kappa Delta  
Alpha Kappa Mu Honor Society  
Alpha Phi Alpha Fraternity, Inc.  
Alpha Phi Sigma National Criminal Justice Honor Society  
Alpha Sigma Lambda  
American Chemical Society  
American Marketing Club  
American Physics Society  
American Production and Inventory Control Society  
Association for Computing Machinery  
Association of Black Communicators  
Association of Concerned Sociologists  
Association of General Contractors of America  
Association of Information Technology Professionals  
Athletes in Action  
Banking and Finance Club  
Baptist Student Union  
Beta Gamma Sigma Honor Society  
Beta Kappa Chi National Scientific  
Beta Psi  
Biology Society  
Caribbean Student Association  
Cheerleaders  
Chemistry Club  
Chess Club  
Chi Eta Phi Sorority, Inc.  
Circle K International  
Collegiate Secretaries International  
Concert Choir  
Consumer Services and Family Studies Club  
Cooperative Education Club  
Council of Independent Organizations (C.I.O.)  
Data Processing Management Club  
Delta Sigma Theta Sorority, Inc.  
Diplomats' Circle, The  
DNIMAS Student Association  
Early Childhood Education Club  
Ebony Rage Fashion Society  
Economics Club  
Elements of Style  
English Club  
English and Foreign Languages Major Club  
Entrepreneurship Club  
Epsilon Tau Sigma  
Family and Consumer Sciences

Finance and Banking Association  
Food Science and Nutrition Club  
French Club  
Freshman Class  
Girls in Science, Engineering and Technology (GISET)  
Golden Key National Honor Society  
Gospel Choir  
Graduate Student Association  
Guild of Fine Arts  
Habitat for Humanity  
Health Information Management  
Health Services Management Association  
History Club  
Hotel, Restaurant and Institutional Management Club  
Industrial Education Technology Club  
Institute of Electrical and Electronic Engineers  
International Food Service Executive Association  
International Student Organization  
International Technology Education Collegiate Association  
Iota Phi Theta Fraternity, Inc.  
Junior Class  
Kappa Alpha Psi Fraternity, Inc.  
Kappa Delta Epsilon  
Kappa Kappa Psi Fraternity, Inc.  
Kappa Omicron Nu  
Kappa Omicron Tau Society  
Leading the Education of Gay and Straight Individuals (LEGASI)  
Lyman B. Brooks Debating Society  
Mass Communications Student Association  
Material Advantage (ACerS-ASM-TMS)  
Mathematics Club  
Medical Records Student Association  
Medical Technology Society  
Minority Association of Pre-Health Students  
Music Educators National Conference  
National Association for the Advancement of Colored People (NAACP)  
National Association of Black Accountants (NABA)  
National Association of Blacks in Criminal Justice  
National Broadcasting Society  
National Council of Negro Women  
National Pan-Hellenic Council  
National Society of Black Student Engineers  
National Society of Minorities in Hospitality  
National Society of Pershing Angels Sorority, Inc.  
National Society of Pershing Rifles Fraternity, Inc.  
National Student Nurses Association  
*The Norfolk Review* (formally The Rhetorician)  
Omega Psi Phi Fraternity, Inc.  
Optical Society of America (NSU Student Chapter)  
Phi Alpha Theta  
Phi Beta Lambda  
Phi Beta Sigma Fraternity, Inc.  
Phi Delta Psi Fraternity, Inc.  
Phi Mu Alpha  
Physical Education and Exercise Science Club  
Physics and Engineering Club  
Pi Gamma Psi Fraternity, Inc.  
Pi Sigma Alpha Honor Society  
Political Science Association  
Pre-Alumni Club  
Pre-Medical Society  
Psi Chi (Psychology)  
Psychology Club  
Public Relations Student Society of America  
Resident Hall Association  
SDX  
Senior Class

Sigma Gamma Rho Sorority, Inc.  
Sigma Tau Delta Honor Society  
Society for the Advancement of Management  
Society of Manufacturing Engineers  
Sociology Club  
Sophomore Class  
Spanish Club  
Spartan Alpha Tau  
Spartan Cavalry/Student Government Association  
Spartan Legion Marching Band  
Speech Pathology and Audiology Club  
Student Affiliate of the American Chemical Society  
Student Ambassadors  
Student Government Association  
Student National Technical Association  
Student Virginia Education Association  
Students in Free Enterprise  
Students Standing 4 Sickle-Cell  
Taekwondo Club  
Tau Beta Sigma National Honor Band Sorority, Inc.  
Technology Education Collegiate Association  
Thurgood Marshall Pre-Law Club  
University Dance Theater  
University Players  
Veterans Club  
Virginia Family and Consumer Sciences  
Vocational Industrial Clubs of America  
Wesley Westminster Club  
Whitney Young Social Work Club  
World Changers  
Young Democrats  
Young Republicans  
Zeta Phi Beta Sorority, Inc.

Publications:

Spartan *Echo* Newspaper  
Spartan *Reflections* Yearbook

### ***The Intramural Program***

The Intramural Program at Norfolk State University provides opportunities for students, both male and female, to participate in individual and team sports activities on a regular basis. More specifically, the program promotes:

1. Better health through exercise,
2. Social interaction and the development of friendships,
3. Sportsmanship of the highest order, and
4. Important values developed through team spirit and cooperation.

The list of competitive intramural activities includes tennis, coeducational volleyball, men's and women's basketball, flag football, softball, billiards, recreational swimming, bowling, roller skating, and ice skating. Students who do not ordinarily take part in sports are encouraged to participate in and enjoy some type of physical activity. The skills acquired in the intramural program will encourage future sports participation and healthy habits that will last a lifetime.

### ***Student Government Association***

Students are invited to help guide the direction of the University through membership in the Student Government Association (SGA). The purpose of the SGA is to develop a cooperative spirit among students; to promote self-development through personal expression, communication and leadership; to encourage student initiative; and to act as an intermediary between the administration and students in matters of general welfare.

Decisions rendered by the Student Government Association are subject to the approval of the Executive Council.

### ***Campus Program Disclaimer***

University organizations frequently invite speakers and performers to campus. The views and opinions of these guests do not necessarily represent those of the University or the sponsoring organization.

**STUDENT SUPPORT SERVICES****(757) 823-8677**

Student Support Services is a federally funded program that provides a variety of supportive services for eligible program participants enrolled at Norfolk State University. Program participants are selected according to one or more of the following criteria: (a) family income (b) first-generation college student (c) academic characteristics or (d) physical disability.

The program provides tutorial services, skill development, counseling, cultural and educational enrichment activities, and a number of other support services to help increase student retention and graduation from Norfolk State University.

**VETERANS AFFAIRS****(757) 823-2586**

The Office of Veterans Affairs (OVA) provides specialized customer service to members of the various branches of military service, veterans and eligible family members regarding registration for Veterans Administration (VA) benefits, counseling and general assistance in admission to the University. The VA Certifying Official for Norfolk State University also assists students with their required VA Educational Plan and serves as a liaison between the University and the regional VA office to provide information on university procedures and to resolve problems regarding eligibility and payment of VA benefits. The OVA also provides basic information about Virginia State Veterans benefits, including the Virginia War Orphans Program.

Each semester, veterans using VA educational benefits must report to the campus OVA after completing the enrollment process. New veterans who are planning to use VA benefits must report to the OVA before enrolling. Veterans must immediately inform the campus OVA if they add, drop, audit, stop attending, have a class or enrollment cancelled, withdraw or are withdrawn from class(es) or the University, are unable to attend classes, or make any changes to their enrollment status.

Educational assistance is available for U.S. military veterans and members of the National Guard and Selected Reserve. In some cases, dependents of veterans in certain categories may be eligible for these benefits. In all instances, the Department of Veterans Affairs (VA) determines eligibility. The VA sends monthly benefit checks directly to the student following verification of enrollment each semester. Receipt of VA benefits may have an impact on levels of federal and state financial aid for which a student may be eligible; therefore inquiries regarding financial aid eligibility should be directed to the Norfolk State University Office of Financial Aid. Students who will attend school under the sponsorship of the VA Vocational Rehabilitation Program should make their initial inquiry to the VA by calling the toll-free number 1-800-827-1000. Norfolk State University receives tuition payments for veterans under the Veterans Vocational Rehabilitation Program. However, all other students must make payments according to the schedule of fees or apply for advance pay 120 days prior to the start of the semester. The University accepts the College Fee Waiver for students authorized for the Virginia War Orphans Program.

**PLANNED STUDENT SECURITY MESSAGE**

Personal information posted on public **newsgroups, public chat groups, community websites** and **even private or commercial on-line sites** may be accessible by anyone on the Internet. Such personal information may be indexed and cached by search engines such as Google or Yahoo and may remain available on search engines even after the original website has removed the information. **Please keep this in mind when posting personal information on public websites.**

**DIVISION OF UNIVERSITY ADVANCEMENT****Paul E. Shelton, Vice President for University Advancement/Executive Director, NSU Foundation, Inc.  
(757) 823-8323**

The purpose of the Division of University Advancement is to advance the University's mission by:

- involving constituents and stakeholders in the life of the University;
- informing constituents of University achievements, priorities, opportunities and challenges;
- researching, identifying, cultivating and securing support and financial investments in the University;
- being good stewards of the institution's relationships and resources; and
- promoting and enhancing the University's stature and image.

The above mission is accomplished through the planning and execution of various programs that promote voluntary support for the University and ongoing liaisons with governmental agencies, foundations, business and industry, alumni and others that provide funds and resources to the University. Specific initiatives to actualize the division's goals are coordinated through the functional areas of alumni relations, development, event planning, marketing services, news and media relations and the L. Douglas Wilder Performing Arts Center. The NSU Foundation, Inc. is a separate entity that also advances and supports the University's mission by soliciting, receiving, investing and



administering gift resources for the University. Many need-based scholarships are administered through the NSU Foundation.

**OFFICE OF ENROLLMENT MANAGEMENT  
(757) 823-8679**

**OFFICE OF ADMISSIONS  
UNDERGRADUATE ADMISSIONS**

**GENERAL ADMISSIONS POLICIES AND REQUIREMENTS**

Norfolk State University practices its mission to provide higher education opportunities for all people regardless of their socio-economic status, race, sex, age, religion, or national origin by identifying and admitting students with academic promise.

Norfolk State University seeks to admit in-state and out-of-state applicants whose combination of academic preparation, aptitude, achievements, and motivation predict a reasonable probability of success in one or more of the University's schools.

The University makes an effort to maintain a diverse student population, which enriches the educational process and benefits the entire campus community. Further, the University reserves the right to base individual admission in any given year upon a number of factors, including the number of applicants to space availability. In some instances, the academic standards/criteria of some programs exceed the minimum University requirements, due to space limitations, resources, and/or program design.

**ADMISSIONS CRITERIA**

1. Admissions criteria for Norfolk State University require an applicant to have graduated from an accredited high school with a minimum grade point average of 2.3 on a four-point grading scale. Applicants must have obtained a high school diploma or its equivalent. A "program completer" status is not equivalent to a high school diploma.
2. All applicants under the age of 21 must submit Scholastic Assessment Test (SAT) scores or American College Testing (ACT) scores. A minimum combined score of 800 (critical reading and math) on the SAT or a composite score of 17 on the ACT is required.
3. The applicant should have completed a minimum total of 22 units distributed as follows:

English	4	Health and Physical Education	2
Mathematics*	3	Fine Arts or Practical Arts	1
Science	3	Electives	6
History and Social Sciences	3	<b>TOTAL</b>	<b>22 Units</b>

\*Algebra I, Geometry, Algebra II recommended

4. Students with a high school equivalency diploma will be considered upon the successful completion of the General Education Development (GED) test with a minimum score of 500. GED graduates may be subject to the requirements outlined above. The University is interested in the quality of the applicant's academic preparation and indicators of overall promise as a student.
5. The applicant must submit two letters of recommendation.

**APPLYING AS A FIRST-TIME FRESHMAN**

When applying for admission as a freshman, the applicant must provide the following:

1. An application completed in full and a non-refundable application fee of \$25, payable by certified check or money order or an official fee waiver.
2. An official high school transcript forwarded by the applicant's high school. (It is the student's responsibility to have final grades sent to the Office of Admissions immediately following graduation.)
3. SAT/ACT scores. (Applicants who have reached the age of 21 at the time of enrollment are exempt from this requirement.)
4. An official report of test results issued by the General Education Development (GED) testing center, if applicable.
5. Two letters of recommendation.
6. \$100 non-refundable enrollment deposit following acceptance.
7. A medical history form signed by the student and a physician, submitted prior to the end of the first semester of enrollment. The form must be submitted to the Spartan Health Center.

\*Home-schooled applicants are required to submit a transcript of units completed and grades earned, SAT/ACT scores, two letters of recommendation, an application completed in full, and a \$25 non-refundable application fee.

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**APPLYING AS A TRANSFER STUDENT**

When applying for admission as a transfer student, the applicant must provide the following:

1. An application completed in full and a non-refundable application fee of \$25, payable by certified check or money order or an official fee waiver.
2. Official transcripts from all colleges attended. Transfer students must be in good standing at the last school attended and must have a minimum cumulative grade point average of 2.0. Information about transfer credit is provided in the next section.
3. High school transcripts, if fewer than 15 semester hours are transferred.
4. SAT/ACT scores, if applicant is under the age of 21 and fewer than 15 semester hours are transferred.
5. \$100 non-refundable enrollment deposit following acceptance.
6. A medical history form signed by the student and a physician, submitted prior to the end of the first semester of enrollment. The form must be submitted to the Spartan Health Center.

**TRANSFER CREDIT**

The Office of Admissions makes the final determination concerning acceptance of transfer credits, after all transcripts from each college attended have been received and reviewed. Transfer credit is accepted for coursework with a grade of "C" or better from regionally accredited institutions of higher learning. Courses taken on a pass/fail basis may be considered for transfer credit if the official college or university transcript or official attachments indicate that a passing grade is equivalent to a grade of "C" or better. No more than 30 pass/fail semester credit hours may be considered for transfer credit. Two copies of the Certificate of Advanced Standing will be generated for all accepted transfers. The Certificate must be submitted to the academic advisor for review and approval during the transfer orientation session. Academic departments will make the final determination of credits accepted toward the chosen curriculum.

**OTHER SOURCES OF TRANSFER CREDIT**

Additional transfer credits may be obtained in the following ways:

**1. Advanced Placement Examinations**

Students who attain scores of 3, 4, or 5 on the Advanced Placement Examinations administered by the College Entrance Examination Board are eligible to receive credit on the basis of these tests. Scores should be forwarded directly from the College Board to the University. Information concerning the College Board Advanced Placement Examinations may be obtained from the Educational Testing Service, Princeton, New Jersey, or from high school counselors and teachers. All AP scores must be sent to the Office of Admissions prior to enrollment.

**2. College Level Examination Program**

Students who attain satisfactory scores on the Subject Examinations College Level Examination Program (CLEP) under the auspices of the College Entrance Examination Board are eligible to receive course credit on the basis of such tests. However, the CLEP examination must be completed prior to or during enrollment at Norfolk State. Academic advisors should be consulted to determine whether credits can be applied to the curriculum. Students applying for CLEP credit must have scores sent directly to the Office of the Registrar, Norfolk State University, 700 Park Ave., Norfolk, VA 23504. (Military service veterans who were administered CLEP through the DANTES program must have CLEP scores reported directly to the University from DANTES.)

Selected CLEP Subject Examinations are offered at nationwide test centers on a monthly basis. CLEP registration information may be obtained from national test centers, from the Educational Testing Service, Princeton, New Jersey, or from the NSU Office of the Registrar.

**3. American College Testing Proficiency Examination Program (ACT PEP)**

Students seeking admission to the Baccalaureate Program in Nursing for Registered Nurses and who are not recent graduates of an articulating institution may receive 34 hours of lower level nursing credit through ACT PEP. These examinations are offered at test centers throughout the nation. For more information, contact the Department of Nursing.

**4. Credit for Military Service**

Honorably discharged veterans of the United States Armed Forces may be granted credit for military science and certain courses in health and physical education upon presentation of the Report of Transfer or Discharge (DD 214) to the Admissions Office. These forms should be submitted prior to the first semester of enrollment.

**5. Credit for Military Service Schools**

Additional credit may be granted for service schools where equivalence, in terms of college courses, has been recommended for college credit as published by the American Council on Education in the Guide to the Evaluation of Educational Experience in the Armed Services. Appropriate documents must be submitted to the Office of Admissions or the Office of the Registrar for an evaluation of these credits.

**6. Virginia Community College System Articulation Agreement**

Students who have completed an associate's degree and are transferring from a Virginia community college to Norfolk State University may be granted junior status. For a complete description of the agreement, please obtain a copy of the "Transfer Guide" from your academic department or the Office of Admissions.

**7. International Baccalaureate Exams**

Students who attain scores of 4, 5, 6, or 7 on International Baccalaureate Examinations (IB) are eligible to receive credit on the basis of these tests. All IB scores must be sent directly to the Office of Admissions prior to enrollment.

**APPLYING AS AN INTERNATIONAL STUDENT**

When applying for admission as an international student, the applicant must provide the following:

1. An application completed in full and a non-refundable application fee of \$25, payable in U.S. funds, or an official fee waiver.
2. Official or certified copies of all academic work and examination results in native language and in English.
3. Two letters of recommendation.
4. Proof of English language proficiency for non-native English speakers.
5. SAT I or ACT scores for undergraduate applicants under the age of 21.
6. Financial documents, including notarized affidavit of support, student certification form, and bank statements.
7. \$100 non-refundable enrollment deposit following acceptance.
7. A medical history form signed by the student and a physician, submitted prior to the end of the first semester of enrollment. The form must be submitted to the Spartan Health Center.

Additional documents may be required.

Due to the length of time required to obtain U.S. visas, applications for admission must be received 3-4 months prior to the semester applicants wish to enroll. Contact the Office of Admissions for detailed application information and instructions.

**ENROLLMENT DEPOSIT FEE**

A non-refundable enrollment deposit of \$100 is required from all entering students.

**NON-DEGREE STUDENTS**

Persons who are seeking teacher certification or who do not wish to pursue a degree program may enroll in non-degree status at Norfolk State University. Students on academic or disciplinary suspension are ineligible to apply as a non-degree seeking student. Applicants should be prepared to present official credentials upon request. Financial aid and housing are not available for non-degree students except for those seeking teacher certification. Non-degree status does not guarantee future admission.

Non-degree students will not be considered as candidates for a degree or certificate until all admissions requirements are met and an application for enrollment is made and approved through the Office of Admissions. The University requires that a student apply for a degree program after completing 29 semester hours. Non-degree students are not required to obtain a Certificate of Advanced Standing. A \$25 non-refundable application fee is required.

**REQUIREMENTS FOR ADMISSION TO SPECIFIC PROGRAMS****ADMISSION TO THE NURSING PROGRAM**

Admission to the programs within the Department of Nursing is competitive and based on criteria that include completion of either high school or college prerequisites, demonstrated ability in mathematics and the natural sciences, competitive grade point average in previous academic work, and other requirements as specified in literature that can be obtained directly from the Department of Nursing.

**PARTNERSHIP FOR ACADEMIC AND STUDENT SUCCESS (PASSport)**

Norfolk State University and Tidewater Community College have created The Partnership for Academic and Student Success (PASSport) to assist students who wish to attend NSU but need additional academic preparation prior to engaging in collegiate study. The purpose of the program is to provide access and support to promising students who do not initially qualify for enrollment at NSU. Please call the Office of Admissions (757-823-8396) for additional information regarding the selection process.

**VIRGINIA IN-STATE TUITION GUIDELINES****ELIGIBILITY FOR IN-STATE TUITION**

The following guidelines outline eligibility information for obtaining in-state tuition rates in the state of Virginia. The information is non-comprehensive and should be used only as a general reference.

**DOMICILE**

To be eligible for in-state tuition rates, students must be domiciled in Virginia for a minimum of one year preceding the first official day of classes. Domicile is defined as the student's "present, fixed home to where the student returns following temporary absences and to where he or she intends to stay indefinitely." In order to qualify for Virginia in-state tuition, therefore, the student must meet two criteria: he or she must currently reside in Virginia *and* intend to reside in Virginia indefinitely.

As a minor, a student carries his or her parents' domiciliary status. Once the student reaches the age of 24, he or she is eligible to establish his or her own domicile. However, if a student is over 24 years of age and is financially dependent on his or her parents, normally the parents must be domiciled in Virginia before the student becomes eligible for in-state tuition benefits.

**FACTORS USED TO DETERMINE DOMICILE**

The University reviews several factors when determining domicile, including:

1. Residence during the past year prior to the first official day of classes;
2. State to which income taxes are filed or paid;
3. Driver's license;
4. Motor vehicle registration;
5. Voter registration;
6. Employment;
7. Property ownership;
8. Sources of financial support;
9. Location of checking or passbook savings account; and
10. Other social or economic ties with Virginia and other states.

The presence of any or all of these factors does not unquestionably determine Virginia domicile. These factors, used to support a case for in-state tuition benefits, must have been present for one year prior to the first official day of classes.

Residence or physical presence in Virginia attained primarily to attend a college or university does not entitle a student to in-state tuition rates. If a student is classified as an out-of-state student, that student will be required to provide clear and convincing evidence to refute the presumption that he or she is residing in the state primarily to attend an institution and does not intend to stay indefinitely. Applications for change of domicile are available through the Office of Admissions.

All applications and supporting documents must be received in the Office of Admissions prior to the start of the semester for which a change of domicile is sought. Domicile review and appeal procedures may take up to six weeks. If a student's application is pending a decision, the student will be expected to pay out-of-state charges until written approval has been granted by the Domicile Committee.

Copies of pertinent Virginia statute and guidelines issued by the State Council of Higher Education are on reserve in the University Library. For additional information, contact the Office of Admissions.

**AUDITING COURSES**

Students who desire to attend classes but do not plan to receive credit may audit courses. A grade of AU is recorded for these students, and they must have the permission of the instructor. An audited course is counted as part of a student's total class load, and he or she must pay tuition the same as if receiving credit. To audit a course the student must complete the Course Registration Worksheet and place an "AU" in the "TUITION HOURS" column of the worksheet. The instructor's signature should be placed in the "Comments" column on the same line as the audited course. The auditing student is expected to attend classes regularly but is not required to submit assignments or take examinations. Changing from audit to credit or from credit to audit is permitted only during the scheduled "Add" period. Audited courses may be dropped during the scheduled "Drop" period.

**CHANGES IN CLASS SCHEDULE (ADD/DROP)**

Changes in class schedules (Add/Drop) may be made only with the written consent of the course instructor and the advisor or department head. Students who have not declared a major may contact ACCESS for advising and schedule changes. Non-matriculating students should contact the Dean's Office in the School of Liberal Arts to process schedule changes. A student must complete the Administrative Change form, obtain the appropriate signatures, and report to the offices of the Registrar and Cashier to complete the transactions. No changes in class schedules may be made after the dates stipulated in the academic calendar for making changes without incurring the penalty of failure, "F," for the course(s) involved.

### **WITHDRAWAL FROM THE UNIVERSITY**

University policy requires a student to complete an Application for Withdrawal when enrollment is terminated before the end of a semester or summer session. The Application for Withdrawal may be obtained from the department head/advisor and must be submitted to the Office of the Registrar by the last day of class. The student should discuss the matter with the department head/advisor before processing the Application for Withdrawal. The last day to officially withdraw from all classes is on the last published date for all classes.

If the student is ill or otherwise incapacitated and cannot complete the withdrawal (or drop) process, the student must contact, or have someone else contact, the Office of the Vice President for Student Affairs, immediately.

A student who fails to adhere to the published deadlines for withdrawing from (dropping) classes or withdrawing from the University will be charged the appropriate tuition and will receive a failing grade (F).

**NOTE: UNDER NO CIRCUMSTANCE DOES NON-ATTENDANCE CONSTITUTE AN OFFICIAL WITHDRAWAL FROM THE UNIVERSITY.**

#### **PRO-RATA REFUND POLICY**

Tuition and room and board charges are adjusted on a pro-rata basis for students who withdraw during the first nine weeks of the fall and spring semesters and the first three weeks of the summer session. Tuition charges are adjusted based upon the following schedule:

Withdrawal Date	University Retains
Before Classes	\$50 Administrative Fee
First Week	10% + \$50
Second Week	20% + \$50
Third Week	30% + \$50
Fourth Week	40% + \$50
Fifth Week	50% + \$50
Sixth Week	60% + \$50
Seventh Week	70% + \$50
Eighth Week	80% + \$50
Ninth Week	90% + \$50
Tenth Week	No Refund

Funds must be returned to the federal financial aid program, etc.

Required Order for Allocating Refunds and Repayments:

\*Federal Family Education Loan Program (FFELP)

\*Federal Direct Student Loan Program (FDSLP)

\*Federal Perkins Loan Program

\*Federal Pell Grant Program

\*Federal SEOG Program

\*Other Title IV Programs

Withdrawal from the University may result in a reduction or cancellation of financial aid awards. Students receiving financial aid should contact the Financial Aid Office for complete information about their individual situations.

### **TUITION APPEAL**

**POLICY STATEMENT:** Norfolk State University will promptly refund tuition and/or cancel a financial charge from a student's account provided that the student meet the requirements of the University's policy on tuition appeals and submit supporting documentation. Appeals that do not represent a sound basis for reimbursement will be denied.

**SUBMITTING AN APPEAL:** Appeals are accepted in the Office of the Registrar, Room 110, Harrison B. Wilson Hall, 700 Park Avenue, Norfolk, Virginia 23504. For information on the tuition appeal process or on obtaining an appeal form, please contact the Office of the Registrar at (757) 823-8229.

#### **ADDITIONAL CHARGES**

Students enrolled in certain music, physical education, nursing, on-line or other such courses may be assessed an additional fee to cover the cost of materials, individual instruction, clothing and equipment required for the course. The amount of the supplementary fee for a specific course is listed in the class schedule booklet.

**SENIOR CITIZENS' TUITION AND FEES**

Persons 60 years of age or older who are residents of Virginia and whose taxable income is less than \$10,000 may enroll in courses for academic credit at a reduced charge.

According to the Code of Virginia (chapter cited as the "Senior Citizens Higher Education Act of 1974"), "Senior Citizen" shall mean any person who, before the beginning of any term, semester or quarter in which such person claims entitlement to the benefits of this chapter, (1) has reached sixty years of age and (2) has had his or her legal domicile in this state for one year.

"Course" shall mean any course of study offered in any state institution of higher education, including the regular curriculum of any department, school, or subdivision of any such institution or any special course, given for any purpose, including, but not limited to, adult education.

Nothing in this section shall be construed to exclude any other rules and requirements now or hereafter made applicable for all other persons with respect to residency in this state by a state institution of higher learning.

**READMISSION**

Any former undergraduate who has not attended Norfolk State University for one or more spring or fall terms must complete an undergraduate readmission application form. If the student has taken any college level coursework since attending NSU, he or she must have an official transcript of this work sent directly to the Office of the Registrar. Readmission applications and necessary transcripts must be on file at least two weeks prior to the term for which the student is applying.

Students who re-enter the University after an absence of two regular terms must meet the requirements of the current catalog unless they receive written permission from the dean of the school in which they are enrolled to continue under an earlier catalog. This written permission must be on file in the Office of the Registrar prior to the submission of a graduation application. A student may not receive permission to graduate under a catalog which predates re-enrollment by more than three years.

**FAMILY EDUCATIONAL RIGHTS PRIVACY ACT (FERPA)**

Annually, Norfolk State University informs students of the Family Educational Rights and Privacy Act of 1974, as amended. This Act, with which the institution intends to comply fully, was designated to protect the privacy of educational records, to establish the right of students to inspect and review their educational records, and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students also have the right to file 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 provision of the Act. Copies of the policy can be found in the Office of the Registrar.

**OFFICE OF THE REGISTRAR  
(757) 823-8229**

The Registrar is the official custodian of academic records and is responsible for the process of enrolling students in courses, assessing tuition charges and related fees, and collecting and maintaining academic information in accordance with University policy. The Registrar certifies students for graduation and is the keeper of the University seal. The Registrar is responsible for calculating and recording student grades and notifying students of their enrollment status, including academic probation and suspension.

**REGISTRATION**

The first step in the registration process is admission to the University. In order to attend classes at Norfolk State University, all students must complete the registration process. A schedule booklet outlining registration policies and procedures, schedule of classes, final examination schedules, and other information pertaining to registration for a given semester or summer school is available in the Office of the Registrar and is issued to each student prior to the scheduled registration period. Registration dates are included in the University calendar shown in this catalog. Students are responsible for complying with all of the policies and procedures governing registration, changing of class schedules, paying tuition, and fulfilling other requirements outlined in this catalog, the current schedule booklet, and other official publications. First-time freshmen and transfer students must obtain the signature of the department head or the academic advisor on the Course Registration Worksheet, indicating approval of the student's schedule of courses. Returning students must consult with their advisor and agree upon a schedule of courses in order for the advisor to release the WEBNO hold for online registration using SpartanShield.

### EARLY REGISTRATION

Currently enrolled students are encouraged to register in advance (pre-register) for the following spring or fall semester. The procedures for pre-registration for an ensuing semester are published in the Registration Information and Schedule of Classes booklet available in the Office of the Registrar. The dates and times for registration are included in the Academic Calendar.

### LATE REGISTRATION

A late registration fee of \$75 will be assessed against any student who fails to complete registration within the specified period for regular registration. The last dates for late registration, adding classes, and changing class schedules are listed in the Academic Calendar.

Additional information about academic policies and procedures related to registration, matriculation, withdrawal, degree completion and graduation is provided in the Academic Policies section of the catalog.

### TRANSCRIPT OF RECORD

A transcript is a history of the student's permanent academic record. Transcripts are issued only upon the written request of the student or his or her authorized agents and should be requested at least 7 days prior to the date needed.

Students may request transcripts of work completed at the University by completing a Transcript Request Form in person on the first floor of Wilson Hall, Room 110, or by mailing the request to: Registrar's Office, Room 110, Harrison B. Wilson Hall, 700 Park Avenue, Norfolk, Virginia 23504. The fee for each transcript is \$ 3.00 and may be paid in person at the Cashier's Office, first floor of Wilson Hall, or mailed with the written request. The check or money order should be made payable to NSU. Students should allow at least 24 hours for processing (except during registration – then allow 5 to 7 business days).

Transcripts are released only when a student's account is paid in full and the student's loans are current.

### RELEASE OF STUDENT INFORMATION

(In accordance with FERPA)

Student records are not available without the student's written consent.

I. **Exceptions:** school officials, including teachers within the educational institution or local educational agencies that have a legitimate educational interest.

**The following information has been declared "Directory Information" and may be released by the University without prior consent of the student: name, address, date and place of birth, major field of study, participation in official activities, weight and height of athletic team members, dates of attendance, enrollment status, degree, honors and awards received, and previous educational agency or institution attended.**

II. **"Directory Information"** will not be released for commercial purposes. A student may contact the Office of the Registrar in writing to request that "Directory Information" not be released.

Access to personal records and files is guaranteed to every student and subject only to regulations as to time, place, and supervision. Members of the faculty with administrative assignments may have access for internal educational purposes as well as for routinely necessary administrative and statistical purposes.

Properly identified officials from federal, state, and local governmental agencies may be given the following information: name and address of parent or guardian if student is a minor and any information required under legal compulsion.

Unless under legal compulsion, personal access to a student's file should be denied to any person making an inquiry.

Disciplinary proceedings will not be made available to any person or agency unrelated to the University.

Upon graduation or withdrawal from the institution, the records and files of former students shall continue to be subject to the provisions of this code.

**Retention and Disposition of Records**

According to the Library of Virginia's Records Retention and Disposition Schedule, General Schedule No. 10I (effective May 2000) records are retained 1-5 years from date of last action and then destroyed. The Office of the Registrar adheres to the following disposal schedule:

RECORD	TIME TO KEEP
Academic Sanctions	1 Year
Change of Class/Course Schedules (Add/Drop Requests)	1 Year
Class Registrations – Students	1 Year
Commencement/Graduation Program	Permanently
Course Enrollment Verification Reports	1 Year
EVAL's	1 Year
Grade Change Requests/Reports	Until entered on Student Record
Grade Reports (from Instructors)	Until entered on Student Record
Graduation Applications	1 Year
Transcripts	Permanently
Transcript Requests	1 Year
Transfer Credit Evaluations/Advanced Standing	1 Year

Records will be destroyed by shredding.

**New Student Orientation**

New students (entering freshmen and transfer students) are invited to the campus for New Student Orientation during the summer or prior to the beginning of the second semester. All students attending these sessions register for the next semester classes and participate in activities that familiarize them with the University's facilities, policies, procedures, services and programs.

**OFFICE OF PLANNING AND BUDGET**

**Earlie Horsey, Executive Director**  
**(757) 823-8679**

In support of the NSU mission, the Office of Planning and Budget provides unbiased, accurate, concise and timely data and analysis to the campus community, policy makers, and the general public to assist strategic development and decision making and promote sound fiscal management.



## ACADEMIC SCHOOLS

### SCHOOL OF BUSINESS

H. Martin Shane, Dean

(757) 823-8920

Gary Whaley, Associate Dean

(757) 823-8217

### NORFOLK STATE UNIVERSITY MISSION STATEMENT

To provide an affordable, high-quality education for an ethnically and culturally diverse student population, equipping them with the capability to become productive citizens who continuously contribute to a global and rapidly changing society.

### THE SCHOOL OF BUSINESS MISSION STATEMENT

To prepare students for careers in all types of organizations and for continued academic study. This is accomplished in a learner-centered community that promotes academic achievement, professional growth, and recognition of the importance of diversity, technology, globalization, and ethics in the workplace and society. The faculty is engaged in intellectual contributions and professional development to remain current in their teaching fields and to promote student success. The faculty is also committed to university and community service.

### ACCREDITATION

The School of Business is accredited by AACSB International --The Association to Advance Collegiate Schools of Business. Founded in 1916, AACSB International is recognized as the sole accrediting agency for baccalaureate, master's, and Ph.D. degree programs in business administration and accounting by the U.S. Department of Education and by the Council on Post Secondary Accreditation.

### ORGANIZATION OF THE SCHOOL

The NSU School of Business has three departments:

1. Accountancy, Finance, and Information Management
2. Management, Marketing, and Entrepreneurship
3. Tourism and Hospitality Management

### PROGRAMS OF STUDY

The Bachelor of Science (B.S.) degree is offered in Accountancy, in Tourism and Hospitality Management, and in Business, which has career tracks in Management, Finance, Information Management, Marketing, and Entrepreneurship.

### ADMISSION REQUIREMENTS

#### A. Business Majors

The School of Business has a lower division (freshman, sophomore) and an upper division (junior, senior). Admission requirements for the lower division are as follows:

1. Completion of two units of high school mathematics (including one unit of algebra) and two units of science;
2. A cumulative grade point average of "C" (2.00) or better in high school or college work; and
3. Indication of readiness to enroll in English 101, adequate reading skills, and eligibility to enroll in college mathematics as evidenced by scores on college placement examinations.

Admission to the upper division requires the completion of all courses in the lower division (freshman, sophomore years) with a minimum cumulative grade point average of 2.00. Non matriculating students may not take courses in the School of Business without consent of the department chair and dean.

Students transferring courses to NSU from colleges and universities accredited by AACSB International may be granted advanced standing. Transfer credits from community colleges and other schools not accredited by AACSB International will be accepted for those approved courses equivalent to those specified for the freshman and sophomore years in the major program selected in the School of Business. Exceptions to this policy may be established by the Dean of the School of Business. At least 50 percent of business course credits must be earned at NSU.

#### B. Minor in Business

A non-business student is required to take six courses (18 hours) to earn a minor in Business. This will include five required courses (15 hours) and one elective course (3 hours).

#### Required Courses

BAD 175	Introduction to Business	3
ACC 201	Principles of Financial Accounting	3
MGT 365	Organizational Behavior and Theory	3
MKG 366	Principles of Marketing	3
ISM 375	MIS and E-Commerce	3

#### Elective Courses (Choose one)

DSC 370	Total Quality Management	3
ENT 387	Introduction to Entrepreneurship	3
FNC 360	Corporate Finance	3

**C. Minor in Accountancy**

A business or a non-business student is required to take five courses (15 hours) to earn a minor in Accounting. This will include three required courses (9 hours) and two elective courses (6 hours).

**Required Courses**

ACC 201	Principles of Accounting I	3
ACC 202	Principles of Accounting II	3
ACC 301	Intermediate Accounting I	3

**Elective Courses (Choose two)**

ACC 302	Intermediate Accounting II	3
ACC 315	Federal Income Tax I	3
ACC 330	Accounting Systems	3
ACC 413	Cost Accounting	3
ACC 414	Auditing	3

**BUSINESS CORE**

Students who major in any degree program offered by the NSU School of Business must complete the following core courses. These courses are intended to give the student a fundamental understanding of the essential areas of business management. Students should complete all lower-level (100 and 200-level series) Core courses prior to enrolling in courses numbered 300 or higher.

ACC 201	Principles of Accounting I	3	BAD 450	Business Seminar	1
ACC 202	Principles of Accounting II	3	FNC 281	Legal Environment for Business	3
ASM 330	Business Communications	3	FNC 360	Corporate Finance	3
BAD 175	Introduction to Business	3	MGT 365	Organizational Behavior and Theory	3
DSC 270	Business Statistics	3	MGT 478	Strategic Management	3
DSC 376	Statistics & Quantitative Methods	3	MKG 366	Principles of Marketing	3
DSC 476	Operations Management	3	ISM 284	Advanced Microcomputing	3
ECN 211	Principles of Economics I	3	ISM 375	Management Information Systems and	3
ECN 212	Principles of Economics II	3		E-Commerce	
ENT 387	Introduction to Entrepreneurship	3		Business Core Elective	3
<b>TOTAL</b>					<b>55 cr hrs</b>

**CURRICULUM REGULATIONS**

- All freshman and sophomore-level (lower division) courses in the curriculum must be completed before students enroll in junior and senior-level (upper division) courses. Upon completion of the lower division courses, a student whose grade point average is at least 2.0 may apply to a School of Business department for admission to upper division.
- A letter grade of "C" or higher must be earned in all courses offered in the School of Business. In addition, a letter grade of at least "C" must be earned in the following non-business courses:

ENG 101	Communication Skills I	MTH 132	Calculus for Non-Science Majors
ENG 102	Communication Skills II	SCM 285	Principles of Speech
MTH 131	Pre-calculus for Non-Science Majors		

**TRANSFER CREDIT**

Credits transferred to Norfolk State University from other AACSB-International-accredited colleges or universities may be accepted as substitutes for equivalent courses in a School of Business curriculum at NSU, without restriction. Credits transferred to NSU from colleges or universities not accredited by the AACSB-International may be accepted as substitutes only for those courses determined to be equivalent to lower division courses in a School of Business curriculum at NSU. Credits transferred to NSU from the Virginia Community College System (VCCS) will be accepted as substitutes for equivalent courses in a School of Business curriculum at Norfolk State University according to the Norfolk State University/Virginia Community College System Transfer Guide. Exceptions to this policy could result from testing or other validation procedures established by the Dean of the School of Business.

**ATTENDANCE POLICY**

All students must attend class in accordance with the NSU attendance policy stated in the student handbook. Failure to do so may result in dismissal from class or a grade of "F."

**COURSE LOAD**

In order to ensure that students have the best chance of successfully pursuing their studies, the maximum permissible course load for all majors will depend on current cumulative grade point average. The following course load limitations will apply:

CUMULATIVE GPA	MAXIMUM HOURS
Below 2.0	12
2.0 - 2.49	15
2.5 and above	18

## SCHOLARSHIPS

The School of Business awards a limited number of scholarships each year to students who show high promise and/or demonstrate a need for financial assistance. Special scholarship programs in the School of Business include the American Institute of Certified Public Accountants (AICPA) Scholarship Program, Philip Morris, Bank of America, Norfolk Southern, Disney, El-Fayoumy, Virginia Hospitality and Travel Association (VHTA) and Thompson Hospitality Scholarships. Students interested in applying for scholarships may contact the School of Business Chair of the Scholarships Committee.

## STUDENT ORGANIZATIONS

Various student organizations exist in the School of Business and are designed (1) to develop competent and assertive business leaders; (2) to create an interest in various career opportunities in business, industry, and government; and (3) to encourage improvement in scholarship and community/professional service. Student organizations include the following:

American Marketing Association

Beta Gamma Sigma

Finance and Banking Club

Information Systems Club

National Association of Black Accountants (NABA)

National Coalition of Black Meeting Planners

National Society of Minorities in Hospitality (NSMH)

Society for the Advancement of Management

Students in Free Enterprise (SIFE)

## SCHOOL OF BUSINESS ADVISORY COUNCIL

The School of Business Advisory Council operates as an external group to review policies, procedures, and programs offered by the School of Business. The Council also advises the dean on strategic issues and the establishment of partnerships with the community.

## CAREER PLANNING AND PLACEMENT

The Norfolk State University Career Services [757-823-8462] offers career development seminars and services to assist students in making a successful transition from school to work. Career Services conducts professional seminars in resume writing, interviewing skills, internship/co-op orientation, job search strategies, and tutorials on how to work a job fair to help students with their career planning and search. In addition, numerous employers from business, industry, and government visit NSU to interview students seeking internships and employment.

## CENTER FOR ENTREPRENEURSHIP

**Melinda Harris, Director**

**(757) 823-2655**

The Center provides leadership programs and resources that enable NSU to add value to businesses served while immersing students in the entrepreneurial experience. Through multidisciplinary teams, the Center extends knowledge and technical assistance that strengthen and expand the number and quality of minority- and women-owned, growth-oriented, and technology-driven businesses.

Students are encouraged to participate in the activities, programs, and initiatives of the Center. The Center creates varied opportunities for students to participate through membership on consulting teams and internships. Experiential learning complements academic preparation by deepening and enriching students' understanding of entrepreneurship and ownership. This experience and the insights gained serve to build confidence and stimulate the entrepreneurial spirit.

All majors are welcome. The faculty members aligned with the Center bring a wealth of entrepreneurial experience, and they actively serve as mentors and coaches to students. In many cases, students engaged by the Center earn while they learn. The goals of the Center are to:

- Design and deliver educational programs (workshops, seminars, internships) and technical assistance to individuals and organizations in order to expand entrepreneurial expertise.
- Engage in applied research that contributes knowledge and encourages business formation and growth among minorities and women.
- Create an environment that immerses NSU students in the entrepreneurial experience.
- Propose recommendations to policy makers to develop and shape effective programs and policies for supporting growth-oriented, technology-based ventures.

## SCHOOL OF BUSINESS ACADEMIC DEPARTMENTS

### DEPARTMENT OF ACCOUNTANCY, FINANCE AND INFORMATION MANAGEMENT

**Jim Chen, Chair**

**(757) 823-8870**

The primary objective of the Department of Accountancy, Finance and Information Management is to prepare students to be successful in their chosen careers. Students who choose to complete the four-year undergraduate (bachelor) degree will have the requisite accounting, business and general education background to pursue a variety of career opportunities. The Department prepares students for careers in business, industry and the governmental sectors. The faculty encourages a commitment to life-long learning and strives to develop technical competence, information technology proficiency, critical thinking, teamwork and communication skills.

**PROGRAMS OF STUDY****Bachelor of Science in Accountancy**

The Bachelor of Science degree in Accountancy requires a minimum of 122 hours of undergraduate work. However, after July 1, 2006, the Commonwealth of Virginia will require 150 of education to sit for the Certified Public Accountant (CPA) exam. The courses required of all accounting majors are as follows (all carry three credit hours except BAD 450 which carries one credit hour):

**Core Courses****Junior Year****First Semester**

ACC 301 – Intermediate Accounting I  
ACC 315 – Federal Income Tax I  
FNC 360 – Corporate Finance  
MGT 365 – Organizational Behavior and Theory  
MKG 366 – Principles of Marketing

**Second Semester**

ACC 302 – Intermediate Accounting II  
ACC 413 – Cost Accounting  
BUS 330 – Business Communications  
DSC 376 – Statistics and Quantitative Methods  
ENT 387 – Introduction to Entrepreneurship

**Senior Year****First Semester**

ACC 330 – Accounting Systems  
ACC 411 – Intermediate Accounting III  
DSC 476 – Operations Management  
SOC 325 – Society, Business and Internationalism  
Xxx Xxx – Business Core Elective

**Second Semester**

ACC 414 – Auditing  
MGT 478 – Strategic Management  
ISM 375 – Management Information Systems & E-Commerce  
Xxx Xxx – Business Core Elective  
Xxx Xxx – Global/Cultural & Language Elective  
Xxx Xxx – Global/Cultural & Language Elective

**CERTIFICATIONS**

Many graduates want to obtain a professional certification. The Certified Public Accountant (CPA) certificate is the best known of these. Effective July 1, 2006, students taking the CPA exam in Virginia will have to meet the 150-hour requirement. However, most states already require students to meet the 150-hour requirement. Students should discuss with their advisor the options that the Department of Accounting has for meeting this requirement.

One option is to enroll in one of the two NSU dual degree programs. A student will be able to pursue degrees in accounting and business (with a concentration in information management or finance). Each program has a 30-semester hour curriculum for the 5th year. The student would receive two diplomas, and both degrees will appear on the student's permanent academic record. Please see a faculty advisor or the department head for more information.

In addition to the CPA exam, graduates of the program may also take the Certified Management Accountant (CMA) exam, Certified Internal Auditor (CIA) exam, Certified Information Systems Auditor (CISA) exam and others. Students interested in taking one of these exams are encouraged to talk to an advisor during their junior year to determine the necessary requirements for taking the exam.

**Bachelor of Science in Business****Finance Track**

The Bachelor of Science degree in Business with a concentration in Finance requires a minimum of 122 hours of undergraduate work. The courses required in the Finance concentration include the following (all carry three credit hours except BAD 450 which carries one credit hour):

**Core Courses****Junior Year**

ACC 361 Financial Statement Analysis  
BUS 330 Business Communications  
DSC 376 Statistics and Quantitative Methods  
ENT 387 Introduction to Entrepreneurship

FNC 360 Corporate Finance  
FNC 310 Risk Management  
FNC 362 Investments  
MGT 365 Organizational Behavior and Theory  
MKG 366 Principles of Marketing  
SOC 325 Society, Business & Internationalism

**Senior Year**

DSC 476 Operations Management  
FNC 363 Financial Institutions  
FNC 395 Introduction to Personal Financial Planning  
FNC 488 International Finance  
FNC xxx Finance Elective  
MGT 478 Strategic Management  
ISM 375 Management Information Systems & E-Commerce  
Xxx Xxx Global/Cultural & Language Elective  
Xxx Xxx Global/Cultural & Language Elective  
Xxx Xxx Business Core Elective

**Information Management Track**

The Bachelor of Science degree in Business with a concentration in Information Management requires a minimum of 122 hours of undergraduate work. The courses required in the Information Management concentration include the following (all carry three credit hours except BAD 450 which carries one credit hour):

**Core Courses****Junior Year**

BUS 330 Business Communications  
DSC 376 Statistics and Quantitative Methods  
ENT 387 Introduction to Entrepreneurship  
MGT 365 Organizational Behavior and Theory  
MKG 366 Principles of Marketing  
ISM 374 Business Applications in Visual Basic  
ISM 375 Management Information Systems & E-Commerce  
ISM 390 Business Database Management  
SOC 325 Society, Business & Internationalism

**Senior Year**

DSC 476 Operations Management  
MGT 478 Strategic Management  
ISM 372 Business Applications in Visual C++  
ISM 410 Information Systems Analysis and Design  
ISM 419 Networking  
ISM 422 Decision Support & Expert Systems  
ISM 499 Senior Project in Information Systems  
Xxx Xxx Global/Cultural & Language Elective  
Xxx Xxx Global/Cultural & Language Elective  
Xxx Xxx Business Core Elective

**DEPARTMENT OF MANAGEMENT, MARKETING, AND ENTREPRENEURSHIP**

**Paulette Edmunds, Chair**  
**(757) 823-8915**

The mission of the Department of Management, Marketing, and Entrepreneurship is to provide students with knowledge that will enable them to become productive managers and entrepreneurs. The Department provides students with the state of the art body of knowledge in these areas and develops and maintains faculty who are committed to excellence in teaching, research, and service.

**PROGRAMS OF STUDY****Management Track**

The Bachelor of Science degree in Business with a concentration in Management requires a minimum of 122 hours of undergraduate work. The courses required in the Management concentration include the following (all carry three credit hours except BAD 450 which carries one credit hour):

**Core Courses****Junior Year**

BUS 330 Business Communications  
DSC 370 Total Quality Management

DSC 376 Statistics and Quantitative Methods  
ENT 387 Introduction to Entrepreneurship  
FNC 360 Corporate Finance  
MGT 365 Organizational Behavior and Theory  
MGT 368 Human Resource Management  
MKG 366 Principles of Marketing  
ISM 375 Management Information Systems & E-Commerce  
SOC 325 Society, Business & Internationalism

**Senior Year**

DSC 476 Operations Management  
MGT 410 Leadership and Diversity in Management  
MGT 415 International Management  
MGT 420 Organizational Change and Development  
MGT 478 Strategic Management  
MGT Xxx Management Elective  
Xxx Xxx Global/Cultural & Language Elective  
Xxx Xxx Global/Cultural & Language Elective  
Xxx Xxx Business Core Elective

**Marketing Track**

The Bachelor of Science degree in Business with a concentration in Marketing requires a minimum of 122 hours of undergraduate work. The courses required in the Marketing concentration include the following (all carry three credit hours except BAD 450 which carries one credit hour):

**Core Courses****Junior Year**

BUS 330 Business Communications  
DSC 376 Statistics and Quantitative Methods  
ENT 387 Introduction to Entrepreneurship  
FNC 360 Corporate Finance  
MGT 365 Organizational Behavior and Theory  
MKG 366 Principles of Marketing  
MKG 367 Customer Identification and Analysis  
MKG 411 Salesmanship  
ISM 375 Management Information Systems & E-Commerce  
SOC 325 Society, Business & Internationalism

**Senior Year**

DSC 476 Operations Management  
MGT 478 Strategic Management  
MKG 412 Marketing Management  
MKG 413 Strategies for Retail Business  
MKG 416 International Marketing  
MKG 497 Marketing Research Strategies and Opportunities  
MKG Xxx Marketing Elective  
Xxx Xxx Global/Cultural & Language Elective  
Xxx Xxx Global/Cultural & Language Elective  
Xxx Xxx Business Core Elective

**Entrepreneurship Track**

The Bachelor of Science degree in Entrepreneurship with a concentration in Marketing requires a minimum of 122 hours of undergraduate work. The courses required in the Entrepreneurship concentration include the following (all carry three credit hours except BAD 450 which carries one credit hour):

**Core Courses****Junior Year**

BUS 330 Business Communications  
DSC 376 Statistics and Quantitative Methods  
ENT 386 New Venture Finance  
ENT 387 Introduction to Entrepreneurship  
FNC 360 Corporate Finance  
MGT 365 Organizational Behavior and Theory  
MKG 366 Principles of Marketing  
ISM 375 Management Information Systems & E-Commerce  
Xxx Xxx Global/Cultural & Language Elective

**Senior Year**

DSC 476 Operations Management  
ENT 465 Small Business Management  
ENT 476 Franchising  
ENT 482 Managing Growing Ventures

ENT 484 Creativity, Innovation and Change Management  
 ENT 495 International Entrepreneurship  
 ENT Xxx Entrepreneurship Elective  
 MGT 478 Strategic Management  
 Xxx Xxx Global/Cultural & Language Elective  
 Xxx Xxx Business Core Elective

## DEPARTMENT OF TOURISM AND HOSPITALITY MANAGEMENT

**Larry Epplein, Interim Chair**  
**(757) 823-8284**

The mission of the Tourism and Hospitality Management Department is to prepare students, through the use of theory-based instruction and practical experience, to assume leadership roles in a challenging and changing global hospitality environment. Tourism and hospitality is a global industry consisting of more than 300,000 hotels and 8 million restaurants and employing 60 million people worldwide. The Bachelor of Science in Tourism and Hospitality Management offers a multidisciplinary approach to applying business principles to the industry. The program requires coursework from various departments within the School of Business, as well as from other areas within the University.

### PROGRAM OF STUDY

The Bachelor of Science degree in Tourism and Hospitality Management requires a minimum of 120 hours of undergraduate work. The courses required of all Tourism and Hospitality Management majors are as follows:

<b>First Year</b>			HRM 310	Professional Development	3
FRS 100	Freshman Seminar	0	MGT 365	Organization Behavior and Theory	3
CSC 150	Computer Literacy	3	MKG 366	Principles of Marketing	3
ENG 101	Communication Skills I	3	HRM 391	Work Experience	3
ENG 102	Communication Skills II	3		Tourism and Hospitality Management Elective	
HRM 100	Professional Development I	3		(from list below)	3
HRM 115	Introduction to Hospitality	3		Tourism and Hospitality Management Elective	
HRM 120	Sanitation Principles	3		(from list below)	3
BAD 175	Introduction to Business	3		Tourism and Hospitality Management Elective	
Math 103	Contemporary Mathematics	3		(from list below)	3
PHY 100	Physical Science	3	<b>TOTAL</b>		<b>30 cr hrs</b>
PHY 100L	Physical Science Lab	1			
Global/Cultural & Language Elective		3	<b>Fourth Year</b>		
<b>TOTAL</b>		<b>31 cr hrs</b>	MGT 415	International Management	3
			HRM 440	Hospitality Sales and Marketing	3
<b>Second Year</b>			HRM 462	Human Resource Management	3
BIO 100	Biological Science	3	HRM 471	Hospitality Law	3
HRM 112	Principles of Nutrition	3	HRM 490	Senior Project	2
ECN 211	Principles of Economics I	3	XXX XXX	Free Elective	3
HED 100	Personal and Community Health	2		Tourism and Hospitality Management Elective	
HRM 200	Computers in Hospitality	3		(from list below)	3
HRM 230	Hospitality Accounting I	3		Tourism and Hospitality Management Elective	
HRM 330	Hospitality Accounting II	3		(from list below)	3
PED 100	Fundamentals of Fitness for Life	1		Tourism and Hospitality Management Elective	
SCM 285	Principles of Speech	3		(from list below)	3
Global/Cultural & Language Elective		3		Tourism and Hospitality Management Elective	
Global/Cultural & Language Elective		3		(from list below)	3
<b>TOTAL</b>		<b>30 cr hrs</b>	<b>TOTAL</b>		<b>30 cr hrs</b>
<b>Third Year</b>			<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
HRM 210	Front Office Management	3	General Education Requirements		40
ASM 330	Business Communication	3	Tourism and Hospitality Management Core		56
Global/Cultural & Language Elective		3	Tourism and Hospitality Management Electives		21
			Non-Major Supplement		3
			<b>TOTAL</b>		<b>120 cr hrs</b>

### Tourism/Hospitality Management Electives

Students must choose 7 courses (21 credit hours) from the following 3-credit courses:

HRM 150 Tourism Principles	HRM 381 Facilities Layout and Design
HRM 211 Housekeeping	HRM 400 Restaurant Management
HRM 359 Commercial Foods/Lab	HRM 401 Club and Resort Management
HRM 240 Introduction to Gaming	HRM 402 Management By Menu
HRM 242 The Travel Agency	HRM 403 Catering Management
HRM 280 Dining Room and Beverage Manag	HRM 441 Restaurant Entrepreneurship
HRM 300 Hospitality Purchasing	HRM 449 International Tourism
HRM 342 The Recreation Industry	HRM 466 Multi-Cultural Management in the Hospitality Industry
HRM 351 Principles of Event Planning and M	HRM 481 Hospitality Property Management
HRM 361 Training for the Hospitality Organiz	HRM 494 Hospitality Franchising

## **SCHOOL OF EDUCATION**

**Jean Braxton, Dean**

**Donna W. Dabney, Assistant Dean**  
**(757) 823-8701**

Theme: "Preparing competent, compassionate, cooperative and committed leaders."

The School of Education is responsible for providing leadership, coordination, and evaluation of all teacher education programs at the University. Its central purpose is to provide pre-service and in-service educational programs to prospective teachers, in-service teachers, administrators, and others engaged in educational activities in schools and other agencies. Corollary purposes are as follows:

1. To contribute to the knowledge base in the field of educational theory and practice in a multi-cultural, multi-lingual, multi-racial society.
2. To provide leadership in involving public schools, universities, and communities in collaborative educational efforts.
3. To provide service to other agencies engaged in education in such a manner as to promote the realization of equal educational opportunity and equal educational results for all children.

## **CONCEPTUAL FRAMEWORK**

The conceptual framework adopted by Norfolk State University's professional education programs describes the vision and purpose of the School of Education to prepare educators to work in Pre-K-12 schools. Consistent with the institution's mission, its focus is to prepare competent, compassionate, cooperative and committed leaders capable of meeting the diverse needs of all learners. Supported by a strong knowledge base, the conceptual framework provides a system for ensuring coherence and a well-articulated professional commitment to knowledge, teaching competence, leadership, and student learning. This is reflected in the curriculum, instruction and clinical experiences provided to develop the knowledge, skills and dispositions that are valued in teachers and other professional school personnel.

## **ACCREDITATION**

All of the teacher education programs sponsored by the School of Education have been approved by the State Department of Education and have been accredited by the National Council for Accreditation of Teacher Education (NCATE). Each program is designed to prepare teachers to meet the teacher certification requirements for the state of Virginia as well as requirements for successful study at the graduate school level.

## **ORGANIZATION OF SCHOOL**

The courses of instruction offered by the School of Education are organized into departments which sponsor a wide array of specialization possibilities for students. The departments and centers are as follows:

Department of Elementary Education	Department of Special Education
Department of Health, Physical Education and Exercise Science	The H. H. Bozeman Integrated Media/Resource Center
Department of Secondary Education and School Leadership	The Center for Professional Development

## **PROGRAMS OFFERED**

The School of Education offers undergraduate programs in the following fields:



**Elementary Education**

(Courses are provided as part of a degree program in an academic field.)

B.S., Early Childhood Education

B.S., Exercise Science/Physical Education

**Special Education**

(Courses are provided as part of a degree program in an academic field. See page 53.)

**Secondary Education**

(Courses are provided as a part of a degree program in an academic field. See page 52.)

Undergraduate programs leading to the Bachelor of Science degree require a minimum of 120 semester hours of credit. These programs lead to the Virginia Collegiate Professional Teacher Certificate or to a specific educational career.

Students seeking teacher certification must earn degrees in academic areas and complete the 18-semester hour professional education sequence and 12-semester hour student teaching experience in the School of Education.

**APPLICATION/ADMISSION TO TEACHER EDUCATION**

Admission to Norfolk State University does not imply automatic admission to teacher education programs. Each prospective teacher must apply to the School of Education for admission to the professional education program and must maintain standards prescribed for retention in the program. Freshman and sophomore students admitted to the pre-professional program are required to apply for admission to the professional education program after completion of the sophomore courses (inclusive of 60 credit hours).

**CRITERIA FOR ADMISSION TO TEACHER EDUCATION****PROFESSIONAL LEVEL**

Applicant must have done the following:

1. completed all prescribed (per curricula) freshman and sophomore courses.
2. earned a grade point average of 2.5 or better in all lower level (freshman and sophomore) courses.
3. earned a grade of "C" or better in all English and math courses.
4. exhibited physical and mental health requisite to the responsibilities and duties of the teaching profession.
5. evidenced character and dispositions appropriate for the duties and responsibilities for the teaching profession and exhibited a professional interest in teaching.
6. earned a grade of "C" or better in EED 201, SED 201, PED 280 or SPE 201 and submitted proof of completion of observation experience.
7. passed the PRAXIS I/SAT/ACT Examination and submitted original copy of score report.
8. received departmental recommendations.
9. submitted a portfolio containing items specified in departmental handbook.

**APPLICATION PROCEDURES FOR ADMISSION TO TEACHER EDUCATION**

1. Application may be made to the School of Education after the second semester of the sophomore year (minimum 60 credit hours). Special forms will be provided by the School of Education in the Center for Professional Development.
2. Applications will be evaluated as "Approved" or "Rejected." Applicants "Rejected" may reapply the next year.
3. The student must receive "Approved" admission to teacher education before registering for upper level professional courses.

**RETENTION IN TEACHER EDUCATION**

Once admitted to teacher education, the following conditions apply:

1. The student must achieve all of his or her major subject departmental objectives and his or her professional objectives in a quality manner.
2. The student must work closely with his or her assigned advisor and maintain better than a 2.5 grade-point average in the major areas and professional education with no final grade less than "C" in either area.
3. The student must maintain good standing with the University and with the School of Education.

**ADMISSION TO DIRECTED TEACHING**

The prerequisites for admission to directed teaching are as follows:

1. Admission to teacher education.
2. Satisfactory results from the Pre-professional Skills Test (PRAXIS I/SAT/ACT).
3. Passing scores on Praxis II or a receipt of registration to take PRAXIS II the next time it is scheduled.
4. Passing scores on the Virginia Reading Assessment (VRA), if applicable.
5. Proof of 10 hours of observation and at least 40 hours of observation/participation field experiences must be submitted with the application to student teach.
6. Evidence of above average academic accomplishment in major subject field.

7. Evidence of above average academic accomplishment in professional education, including both general and special courses.
8. An overall average scholastic record of 2.5 or better for all undergraduate work completed.
9. Departmental endorsement (major subject field advisor) (Department Head). (See Student Teaching Application at Center for Professional Development webpage.)
10. Status as a graduating senior in December or May of the school semester in which directed teaching is to begin (Department Head/Advisor).
11. Evidence of above average achievement in written and oral communications, including met all communications requirements for earning a baccalaureate degree from the University.
12. Satisfactory disposition and character references by Advisor or Department Head.
13. Choice of teaching as a primary vocation (STUDENT TEACHING APPLICATION).
14. Completion of required methods courses within the last two semesters prior to making application for admission to directed teaching (ADVISORY REPORT).
15. Evidence of training in child abuse/neglect reporting, a negative TB test result, a Virginia State Police criminal background check, and a Search of the Central Registry from Social Services (if applicable).
16. For transfer students, completion of some coursework at this university, including at least one methodology course, before approval for student teaching (DEPARTMENT HEAD).

### TEACHER CERTIFICATION ENDORSEMENT

The following steps are required for students seeking teacher certification endorsement as undergraduates:

#### Secondary School Certification Endorsement

1. Students must take the General Education Core of 40 semester hours.
2. Students must earn an undergraduate degree in the field in which they plan to teach. The fields are listed below.

Art/Fine Arts	Earth Science	Music/Vocal
Biology	English	Physical Education/
Business	History and Social Studies	Driver Education
Chemistry	Mathematics	Physics
	Music/Instrumental	

3. Students must take 18 semester hours of the following professional education courses plus student teaching (12 semester hours):

SED 201	American Schools and the Teaching Profession	SED 390	Secondary Social Studies Methods (for History/Social Science majors)
SED 233	Seminar in Assessment and Evaluation	SED 420	Educational Technology
SED 380	Foundations of Methods in Secondary Schools	SED 486	Educational Psychology and Behavior Management
SED 384	Teaching Methods of Mathematics/Science/ Technology (for mathematics/science majors in place of SED 488)	SED 488	School/Community Relations
		SED 499	Directed Teaching and Seminar

4. Students must pass the PRAXIS I/SAT/ACT examination prior to taking the methods courses.
5. See other requirements listed above.

#### Elementary Certification Endorsement

1. Students must take the General Education Core of 40 semester hours.
2. Students must earn a degree in one of the following fields:

English	History and Social Studies
Interdisciplinary Studies	Psychology

3. Students must take the following courses in elementary education and professional education (18 semester hours):

EED 201	American Schools and the Teaching Profession	EED 384	Teaching Reading in the Elementary School
EED 274	The Study of Young Children	EED 450	Diagnostic Reading
EED 300	Methods and Materials for Teaching Science, Mathematics, and Technology	EED 461	Curriculum & Instruction in the Elementary School Grades (4-6)
EED 360	Curriculum & Instruction for Primary Grades (Pre-K-3)	EED 499	Directed Teaching (Student Teaching)
EED 374	Methods of Teaching Social Studies in the Elementary School		

- Students must pass the Praxis I/SAT/ACT examination prior to enrolling in 300- or 400-level EED courses.  
\*Enrollment requires completion of requirements for admission to teacher education.
- See other requirements under admission to teacher education and directed teaching listed above.

### Special Education Certification Endorsement

- Students must take the General Education Core of 40 semester hours.
- Students must earn a degree in one of the following liberal arts majors:
 

English	History and Social Studies
Interdisciplinary Studies	Psychology
- Students must take 24 semester hours plus student teaching (12 semester hours) in special education and professional education courses.
- Students must pass the PRAXIS I/SAT/ACT examination before student teaching.
- Students must complete preparation to teach learners with learning disabilities and mental retardation or emotional disturbance.
- See other requirements under admission to teacher education and directed teaching listed above.

### Learning Disabilities

SPE 210	American Schools & the Teaching Profession	3	AND		
SPE 312	Educational Psychology and Behavioral Management	3	Option (a): Mental Retardation		
SPE 344	Teaching Reading to Exceptional Learners	3	SPE 332	Understanding and Teaching Learners with Mental Retardation	3
SPE 321	Characteristics, Medical and Legal Aspects in Special Education	3	SPE 499C	Directed Teaching-Mental Retardation	6
SPE 440	Collaboration, Inclusion, Transition and Other Curricular Adjustments	3	<b>TOTAL</b>		<b>9 cr hrs</b>
SPE 490	Assessment of Exceptional Students	3	OR		
SPE 499B	Directed Teaching-Learning Disabilities	6	Option (b): Emotional Disturbance		
<b>TOTAL</b>		<b>24cr hrs</b>	SPE 334	Understanding and Teaching Learners with Emotional Disturbance	3
			SPE 499A	Directed Teaching-Emotionally Disturbance	6

### TEACHER CERTIFICATION PROCEDURES

Bachelor's degree graduates seeking a teaching certificate endorsement must report to the Department of Graduate Studies for approval, counseling, and advisor assignment. (Lists of courses required for each teaching field are found in this catalog under each department.) All applicants for teaching certificates must take the PRAXIS examination and make passing scores required by the Virginia Department of Education prior to admission to teacher education. See other requirements under admission to teacher education and directed teaching listed above.

The passing scores, for Praxis I are Writing 176 and Reading and Math 178. A composite score of 532 is passing when all three test are computer based or paper and pencil.

The passing scores for Praxis II are as follows:

	CBT	PPST		CBT
Art Education	159		Family and Consumer Services	550
Biology: Content Knowledge	155		French: Content Knowledge	169
Business Education	590		German: Content Knowledge	162
Chemistry: Content Knowledge	153		Mathematics: Content Knowledge	147
Elementary Education	143		Music: Content Knowledge	160
English Language			Physical Education	151
Mathematics	323	178	Social Studies: Content Knowledge	161
Reading	326	178	Spanish: Content Knowledge	161
Writing	324	176	Speech/Communication	470
Literature and Composition:			Technology Education	610
Content and Knowledge	172			

### UNIVERSITY-WIDE COUNCIL ON TEACHER EDUCATION (CTE)

The Council on Teacher Education is an advisory committee for implementing the total university emphasis on quality preparation of prospective teachers. Policies are executed by the School of Education. The Council is composed of representatives from all departments of the University that sponsor teacher preparation programs.

#### THE CENTER FOR PROFESSIONAL DEVELOPMENT

**Margaret Knight, Director**  
(757) 823-8715

The Center for Professional Development has the responsibility for providing all formal field experiences, observation/participation, directed teaching, and internships for persons wishing to enter the education profession. Observation and participation experiences are provided for freshman, sophomore, and junior-level students. Student teaching and internship experiences are provided for senior-level and graduate students.

#### H. H. BOZEMAN INTEGRATED MEDIA/RESOURCE CENTER

The H. H. Bozeman Integrated Media/Resource Center provides supplementary materials and instructional media for the School of Education and for other schools and departments for which the collections are relevant. Two centers comprise the component: The Instructional Media Center and the Multi-Cultural/Instructional Resource Center. The combined collections include resources and equipment appropriate for use from preschool through adult education levels, with emphasis on the training and professional development of the teacher.

#### DEPARTMENT OF ELEMENTARY EDUCATION

**Arletha McSwain, Department Head**  
(757) 823-2700

The Elementary Education Department provides undergraduate and graduate programs for students seeking preparation to work with young children in the community, agencies, and public school settings.

#### Elementary Certification Endorsement (PreK-6)

- Students must take the General Education Core of 41 - 44 semester hours.
- Students must earn a degree in one of the following fields:
 

English	Mathematics
History	Psychology
- Students must take the following courses in elementary education and professional education for endorsement (36 semester hours):

EED 201	American Schools and the Teaching Profession	EED 461	Curriculum & Instruction in the Elementary School Grades (4-6)
EED 274	The Study of Young Children	EED 465	Methods and Materials for Teaching Science, Mathematics and Technology
EED 360	Curriculum & Instruction for Primary Grades (Pre-K)	EED 490	Diagnostic Reading
EED 374	Methods of Teaching Social Studies in the Elementary School	EED 499	Directed Teaching (Student Teaching)
EED 450	Teaching Literacy in the Elementary School		

- Students must pass the PRAXIS examinations.  
\*Enrollment requires completion of requirements for admission to teacher education.

#### ELEMENTARY EDUCATION CERTIFICATION ENDORSEMENT GRADES PRE-K-6 CURRICULUM B.A. IN PSYCHOLOGY

<b>First Year</b>			<b>Third Year</b>		
UNI 101	Introduction to University Life	0	EED 360	Curriculum & Instruction for Primary Grades (Pre K- 3)	3
ENG 101	Communication Skills I	3	PSY XXX	Electives	10
ENG 102	Communication Skills II	3	MTH 141	Mathematics for Elementary Teachers I	3
MTH 103	Contemporary Mathematics	3	MTH 142	Mathematics for Elementary Teachers II	3
MTH 105	Elementary Algebra	3	PSY 360	Experimental Psychology	3
BIO 100	Biological Science	3	PSY 360L	Experimental Psychology Lab	1
BIO 100L	Biological Science Lab	3	EED 450	Teaching Literacy in the Elementary Schools	3
CHM 100	Chemistry or PHY 100	3	EED 461	Curriculum & Instruction for Elementary School (4-6)	3
CHM 100L	Chemistry or PHY 100L	3	EED 465	Methods and Materials for Teaching Science, Mathematics and Technology	3
CLS 150	Computer Concepts & Applications	3	<b>TOTAL</b>		<b>31 cr hrs</b>
HIS 103	American History	3			
PSY 210	Introduction to Psychology	3			
PED 100	Fundamentals of Fitness for Life	1			
HED 100	Personal & Community Health	2			
<b>TOTAL</b>		<b>36 cr hrs</b>			
<b>Second Year</b>			<b>Fourth Year</b>		
EED 201	American Schools & Teaching Profession	3	PSY	Psychology of African Americans	3
PSY 211	Basic Principles of Psychology	3	INT 350	Trends and Issues of Diverse Populations	3
EED 274	Study of Young Children	3	PSY 492	Psychology Seminar	3
SCM 285	Principles of Speech	3	EED 470	Methods of Teaching Social Studies in the Elementary School	3
SCI 381	Science for Elementary Teachers	3	EED 490	Diagnostic Reading	3
SCI 381L	Science for Elementary Teachers Lab	1	EED 499	Directed Teaching	12
ENG 207	Literature of the Western World	3	<b>TOTAL</b>		<b>27 cr hrs</b>
PSY 270	Statistics in Psychology or PSY 370	3			
SOC 101	Introduction to Social Science	3			
HUM 210	Humanities	3			
ENG 203	Advanced Communication Skills	3			
<b>TOTAL</b>		<b>31 cr hrs</b>			
NOTE: STUDENTS MUST PASS PRAXIS I AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HOURS			<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
			General Education Core		41
			Psychology		28
			Secondary Concentration		24
			Support Concentration II		
			Student Teaching		12
			Supporting Courses		16
			<b>TOTAL</b>		<b>126 cr hrs</b>

**ELEMENTARY EDUCATION ENDORSEMENT Pre-K-6; MATHEMATICS CURRICULUM  
(FOR PERSONS WHO DO NOT HAVE A B.S. OR B.A. DEGREE)  
BACHELOR OF SCIENCE IN INTERDISCIPLINARY STUDIES**

<b>First Year</b>			ENG 203	Advanced Communication Skills	3
ENG 101	Communication Skills	3	ENG 207	Literature of the Western World	3
ENG 102	Communication Skills	3	SCM 285	Principles of Speech	3
MTH 103	Contemporary Mathematics	3	HUM 210	Humanities	3
MTH 105	Intermediate Algebra	3	EED 201	The American Schools and the Teaching Profession	3
BIO 100	Biological Science or BIO 110 or PHY 100 or CHM 10	6	FIA 301	or MUS 301 or ENG 383 or FIA 170 or MUS 234	3
PHY 100L	Lab or BIO 100L or CHM 100L	2	POS 315	or PSY 340 or HIS 335 or HIS 336 or HIS 371	3
HIS 102	American History	3	EED 274	The Study of Young Children	3
SOC 101	Introduction to Social Science	3	INT 308	Interdisciplinary Seminar	3
CSC 150	Computer Literacy or CLS 150 or TED 170	3	<b>TOTAL</b>		<b>33 cr hrs</b>
HED 100	Personal and Community Health	2			
PED 100	Fundamental Fitness for Life	1			
<b>TOTAL</b>		<b>32 cr hrs</b>			
<b>Second Year</b>			NOTE: STUDENTS MUST PASS PRAXIS I AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HRS.		
MTH 141	Teaching Mathematics in the Elementary Schools	3			
MTH 142	Teaching Mathematics in the Elementary Schools	3			

<b>Third Year</b>			EED 461	Curriculum and Instruction for Elementary School (Grades 4-6)	3
INT 360	Research Interdisciplinary Studies	3	EED 490	Diagnostic Reading and Prescriptive Reading	3
INT 375	Language and Society	3	CSC 170	Computer Programming	3
MTH 153	College Algebra and Trigonometry	3	INT 350	Trends and Issues with Diverse Populations	3
MTH 184	Calculus	3	EED 499	Directed Teaching.	12
CSC 169	Foundations of Computers	3	<b>TOTAL</b>		<b>28 cr hrs</b>
INT 322	Approaches to Critical Analysis	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
EED 465	Methods of Teaching Science, Mathematics, and Technology	3	General Education Requirements		44
EED 360	Curriculum and Instruction for Primary Grades (Pre K-3rd)	3	Interdisciplinary Core		15
EED 450	Teaching Literacy in the Elem School	3	Secondary Concentration Elementary Education		24
EED 470	Methods of Teaching Social Studies in the Elementary School	3	Supportive Concentration I Liberal Arts Core (LAC)		16
<b>TOTAL</b>		<b>30 cr hrs</b>	Supportive Concentration II - Student Teaching		12
			Supporting Courses		13
			<b>TOTAL</b>		<b>124 cr hrs</b>
<b>Fourth Year</b>					
SCI 381	Science for Teachers	3			
SCI 381L	Science for Teachers Lab	1			

**ELEMENTARY EDUCATION ENDORSEMENT PK-6; ENGLISH CURRICULUM  
(FOR PERSONS WHO DO NOT HAVE A B.S. OR B.A. DEGREE)  
BACHELOR OF SCIENCE IN INTERDISCIPLINARY STUDIES**

<b>First Year</b>			<b>Third Year</b>		
ENG 101	Communication Skills	3	INT 360	Research Interdisciplinary Studies	3
ENG 102	Communication Skills	3	INT 375	Language and Society	3
MTH 103	Contemporary Mathematics	3	ENG 306	Literary Criticism	3
MTH 105	Intermediate Algebra	3	ENG 315	Survey of English Literature	3
BIO 100	Biological Science or BIO 110 or PHY 100 or CHM 100	6	ENG 341	Survey of American Literature	3
PHY 100L	Lab or BIO 100L or CHM 100L	2	INT 322	Approaches to Critical Analysis	3
HIS 102	American History	3	EED 360	Curriculum and Instruction for Primary Grades (Pre K-3rd)	3
SOC 101	Introduction to Social Science	3	EED 450	Teaching Literacy in the Elem School	3
CSC 150	Computer Literacy or CLS 165 or TED 170	3	EED 465	Methods of Teaching Science, Mathematics, and Technology	3
PED 100	Fundamental Fitness for Life	1	EED 470	Methods of Teaching Social Studies in the Elementary School	3
HED 100	Personal and Community Health	2	<b>TOTAL</b>		<b>30 cr hrs</b>
<b>TOTAL</b>		<b>32 cr hrs</b>			
<b>Second Year</b>			<b>Fourth Year</b>		
MTH 141	Teaching Mathematics in the Elementary Schools	3	SCI 381	Science for Elementary Teachers	3
ENG 203	Advanced Communication Skills	3	SCI 381L	Science for Elementary Teachers Lab	1
ENG 207	Literature of the Western World	3	EED 461	Curriculum and Instruction for Elementary School (Grades 4-6)	3
SCM 285	Principles of Speech	3	EED 490	Diagnostic Reading and Prescriptive Reading	3
HUM 210	Humanities	3	ENG 452	Literature for Children and Adolescence	3
EED 201	The American Schools and the Teaching Profession	3	INT 350	Trends and Issues with Diverse Pop	3
EED 274	The Study of Young Children	3	EED 499	Directed Teaching.	12
MTH 142	Teaching Mathematics in the Elementary Schools	3	<b>TOTAL</b>		<b>28 cr hrs</b>
FIA 301	Art Appreciation or MUS 301	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
POS 315	or PSY 340 or HIS 335 or HIS 336 or HIS 371	3	General Education Core		44
INT 308	Interdisciplinary Seminar	3	Interdisciplinary Studies Core		15
<b>TOTAL</b>		<b>33 cr hrs</b>	Secondary Concentration Elementary Education		24
			Supportive Concentration I Liberal Arts Core (LAC)		15
			Supportive Concentration II - Student Teaching		12
			Supporting Courses		13
			<b>TOTAL</b>		<b>123 cr hrs</b>

NOTE: STUDENTS MUST PASS PRAXIS I AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HRS

**ELEMENTARY EDUCATION ENDORSEMENT PK-6; HISTORY CURRICULUM  
BACHELOR OF SCIENCE IN INTERDISCIPLINARY STUDIES**

<b>First Year</b>			<b>Third Year</b>		
ENG 101	Communication Skills	3	INT 360	Research Interdisciplinary Studies	3
ENG 102	Communication Skills	3	INT 375	Language and Society	3
MTH 103	Contemporary Mathematics	3	HIS 328	History of Virginia	3
MTH 105	Intermediate Algebra	3	ECN 211	Economics	3
BIO 100	or BIO 110 or PHY100 or CHM 100	6	GEO 130	Principles of Geography	3
BIO 100L	or PHY 100L or CHM 100L or CHM 100L	2	INT 322	Approaches to Critical Analysis	3
HIS 102	American History	3	EED 360	Curriculum and Instruction for Primary Grades (Pre K-3rd)	3
SOC 101	Introduction to Social Science	3	EED 374	Methods of Teaching Social Studies in the Elementary School	3
CSC 150	or CLS 150 or TED 170	3	EED 450	Teaching Reading in the Elementary School	3
PED 100	Fundamental Fitness for Life	1	EED 465	Methods of Teaching Science, Mathematics, and Technology	3
HED 100	Personal and Community Health	2	<b>TOTAL</b>		<b>30 cr hrs</b>
<b>TOTAL</b>		<b>32 cr hrs</b>			
<b>Second Year</b>			<b>Fourth Year</b>		
MTH 141	Teaching Mathematics in the Elementary Schools	3	SCI 381	Science for Elementary Teachers	3
ENG 203	Advanced Communication Skills	3	SCI 381L	Science for Elementary Teachers Lab	1
ENG 207	Literature of the Western World	3	EED 461	Curriculum and Instruction for Elementary School (Grades 4-6)	3
SCM 285	Principles of Speech	3	EED 490	Diagnostic Reading	3
HUM 210	Humanities	3	HIS 439	Recent American History from 1932 to Present	3
EED 201	The American Schools and the Teaching Profession	3	INT 350	Trends and Issues with Diverse Pop	3
MTH 142	Teaching Mathematics in the Elementary Schools	3	EED 499	Student Teaching	12
FIA 301	Art Appreciation or MUS 301	3	<b>TOTAL</b>		<b>28 cr hrs</b>
POS 315	or PSY 340 or HIS 335 or HIS 336 or HIS 371	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
EED 274	The Study of Young Children	3	General Education Requirements		44
INT 308	Interdisciplinary Seminar	3	Interdisciplinary Studies Core		15
<b>TOTAL</b>		<b>33 cr hrs</b>	Secondary Concentration Elementary Education		24
NOTE: STUDENTS MUST PASS PRAXIS I AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HRS			Supportive Concentration I Liberal Arts Core (LAC)		15
			Supportive Concentration II - Student Teaching		12
			Supporting Courses		13
			<b>TOTAL</b>		<b>123 cr hrs</b>

### BACHELOR OF SCIENCE IN EARLY CHILDHOOD DEVELOPMENT CHILD CARE (NON-TEACHING) OPTION

<b>First Year</b>			<b>Second Year</b>		
BIO 100	Biological Science	3	ECE 201	American Schools and the Teaching Profession	3
BIO 100L	Biological Science Lab	1	ECE 233	Critical Thinking	3
ENG 101	Communication Skills I	3	ECE 274	The Study of Children	3
ENG 102	Communication Skills II	3	ENG 203	Advanced Communication Skills	3
HED 100	Personal and Community Health	2	FIA 301	Art Appreciation or MUS 301	3
HIS 100	History of Civilization or HIS 101	3	PSY 210	Intro to Psychology	3
HIS 102	U.S. History or HIS 103	3	PSY 228	Developmental Psychology	3
MTH 103	Contemporary Mathematics	3	HUM 210	Humanities	3
MTH 105	Elementary Algebra	3	HIS 335	African-Am. History or HIS 336, PSY 340, POS 315, ENG 383	3
PED 100	Fundamental Fitness for Life	1	SCM 285	Principles of Speech	3
PHY 100	Physical Science or CHM 100	3	SOC 101	Introduction to Social Science	3
PHY 100L	Physical Science Lab or CHM 100L	1	<b>TOTAL</b>		<b>33 cr hrs</b>
CSC 150	Computer Literacy	3			
ECE 110	Intro to the Profession	2			
<b>TOTAL</b>		<b>34 cr hrs</b>			
<b>Third Year</b>			<b>Fourth Year</b>		
ECE 360	Curriculum and Instruction in ECE	3	EED 450	Teaching Literacy in Elem. Schools	3
ECE 362	Math for Young Children	3	INT 350	Trends and Issues of Diverse Populations	3
HFD 230	Activities for Children	3	HFD 420	Parent Education	3
ECE 324	Children's Literature	3	HFD 460	Organization and Administration of Child Care Programs	3
HFD 370	Analyzing the Behavior of Children	3	ECE 495	Practicum (Child Care Settings)	9
DRM 226	Children's Theatre	3	Electives		3
SWK 211	Interviewing Techniques	3	<b>TOTAL</b>		<b>24 cr hrs</b>
ENT 387	Intro to Entrepreneurship	3			
Electives		5			
<b>TOTAL</b>		<b>29 cr hrs</b>	<b>TOTAL</b>		<b>120 cr hrs</b>

**DEPARTMENT OF HEALTH, PHYSICAL EDUCATION AND EXERCISE SCIENCE****Delano Tucker, Department Head****(757) 823-8703**

The Department offers professional preparation leading to the Bachelor of Science Degree with the following emphases:

Physical Education - Teacher Certification K-12  
Health Fitness Instructor

Kinesiotherapy  
Exercise Science Nutrition Option

The certified physical educator is trained to teach physical education in grades K-12. The teacher certification program in physical education also permits an add-on endorsement in health, aquatics, and/or driver education.

The certified health fitness instructor is trained to deliver fitness training in corporate settings, health spas, and in other areas of the sport and fitness industry.

The kinesiotherapist is a health care professional who, under the direction of a physician, treats the effects of disease, injury and congenital disorders through the use of therapeutic exercise, rehabilitation exercise and education.

The Exercise Science Nutrition option blends both exercise science and nutrition and is designed for the student who plans a career focusing on both of these disciplines. It includes the undergraduate academic requirements set forth by the American Dietetic Association for students who are interested in applying for dietetic internships.

**PHYSICAL EDUCATION CURRICULUM  
(B.S., EXERCISE SCIENCE/PHYSICAL EDUCATION)**

<b>First Year</b>			<b>Second Year</b>		
UNI 101	Introduction to University Life	0	HUM 210	Humanities or MUS 301/324, FIA 201/207	3
BIO 110	Biological Science or BIO 100/100L	4	HUM 211	Humanities or ENG 207/383	3
CSC 150	Computer Concepts and Applications or CLM 165, BAD 184, FIA 180, TED 170	3	HED 442	Safety	3
ENG 101	Communication Skills I	3	PED 134	Advanced Beginning Swimming	1
ENG 102	Communication Skills II	3	PED 251	Modern Dance	1
HED 170	Personal & Community Health	3	PED 253	Gymnastics	1
HIS 100	or HIS 101, 102, 103	3	PED 261	Team Sports I	1
MTH 141	Math for Teachers	3	PED 262	Team Sports II	1
PED 151	or PED 152 Rhythm & Folk Dance	1	PED 287	Anatomy & Physiology I	3
PED 158	Fundamentals of Physical Education	1	PED 287L	Anatomy & Physiology I Lab	1
PED 159	Fundamentals of Physical Education	1	PED 288	Anatomy & Physiology II	3
PED 280	Introduction to Physical Education	3	PED 288L	Anatomy & Physiology II Lab	1
SOC 101	Introduction to Sociology	3	PSY 228	Human Growth and Development	3
<b>TOTAL</b>		<b>31 cr hrs</b>	SCM 285	Principles of Speech	3
			SED 201	Amer. Schools & the Teaching Profession	3
			Elective		3
			<b>TOTAL</b>		<b>34 cr hrs</b>

NOTE: STUDENTS MUST PASS PRAXIS I AND APPLY FOR  
ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HRS



**Third Year**

PED 271	Individual Sports I	1
PED 272	Individual Sports II	1
PED 335	Techniques and Skills	1
PED 350	Methods of Teaching Physical Education in Elementary Schools	3
PED 356	Kinesiology	3
PED 357	Organization and Administration of Physical Education	3
PED 361	Coaching	3
PED 362	Officiating	1
PED 365	Adapted Physical Education	3
PED 369	Assessment and Evaluation in Physical Education	3
PED 450	Motor Learning	3
PED 477	Physiology of Muscle Exercise	3
HED 368A	Curriculum/Methods in Health Education	3
SED 405	Reading in the Content Areas	3
<b>TOTAL</b>		<b>34 cr hrs</b>

**Fourth Year**

HRP 290	African-American Health or Cultural Elect	3
PED 358	Methods & Materials of Secondary Physical Education ****	3
PED 480	Principles of Physical Education	3
PED 499	Seminar	1
SED 420	Educational Technology	3
SED 486	Educational Psychology and Behavior Management	3
SED 499	Student Teaching	12
<b>TOTAL</b>		<b>29 cr hrs</b>

Department Requirement - PED 179 or Red Cross Equivalent

\*\*\*\* Enrollment requires completion of requirements for admission to teacher education.

**Health Endorsement**

FSN 110	Introduction to Nutrition Science	3
PED 179	First Aid	2
PED 200	Fitness Through Weight Training	3
HED 170	Personal & Community Health	3
HED 368A	Curriculum & Methods in Health Ed	3
HEED 442	Safety	3

**Driver Education Endorsement**

PED 441	3
PED 444	3

### HEALTH FITNESS INSTRUCTOR CURRICULUM (B.S., EXERCISE SCIENCE/PHYSICAL EDUCATION)

**First Year**

UNI 101	Introduction to University Life	0
BIO 110	Biological Science or BIO 100/100L	4
CSC 150	Computer Concepts and Applications or CLM 165, BAD 184, FIA 180, TED 170	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 170	Personal & Community Health	3
HIS 100	History or HIS 101, 102, 103	3
MTH 105	Intermediate Algebra	3
PED 133	Beginning Swimming	1
PED 200	Weight Training/Conditioning	2
PED 280	Introduction to Physical Education	3
EXS 170	Introduction to Exercise Science	3
SOC 101	Introduction to Social Science	3
<b>TOTAL</b>		<b>34 cr hrs</b>

**Second Year**

Second Year		
Elective		3
CHM 215	Chemistry	3
CHM 215L	Chemistry Lab	1
FSN 110	Science of Human Nutrition	3
HUM 210	Humanities I or MSU 301/324, FIA 201/207	3
HUM 211	Humanities II or ENG 207/383	3
PED 179	First Aid	2
PED 251	Modern Dance	1
PED 287	Anatomy & Physiology I	3
PED 287L	Anatomy & Physiology I Lab	1
PED 288	Anatomy & Physiology II	3
PED 288L	Anatomy & Physiology II Lab	1
PSY 215	Human Growth and Development	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**Third Year**

EXS 237	Care & Prevention of Athletic Injuries	3
EXS 363	Clinical Aspects of Aging	2
EXS 380	Stress Management	3
HRP 290	African Amer Health or Cultural Elective	3
PED 356	Kinesiology	3
PED 357	Organization & Administration of Physical Education	3
PED 358	Methods & Materials of Secondary Physical Education	3
PED 365	Adapted Physical Education	3
EXS 369	Evaluation in Physical Education	3
EXS 477	Exercise Physiology	3
EXS 447L	Exercise Physiology Lab	1
SCM 285	Principles of Speech	3
<b>TOTAL</b>		<b>33 cr hrs</b>

**Fourth Year**

EXS 414	Special Problems in Exercise Science	3
PED 300	Advanced Weight Training	2
PED 450	Motor Learning	3
Electives		3
Internship (Local)		3
Internship		12
<b>TOTAL</b>		<b>26 cr hrs</b>

Electives - Choose from the list below:

**INDIVIDUAL SPORTS/TEAM SPORTS**

PED 158/15	Fundamentals of Physical Education	1
PED 204	Tennis I / Racquetball	1
PED 206	Tennis II	1
PED 209	Bowling	1
PED 210	Golf	1
PED 212	Racquetball	1
PED 261/26	Team Sports	1
PED 271/27	Individual/Dual Sports	1

**HEALTH CONTENT**

HED 368A	Curriculum and Methods in Health Ed	3
HED 442	Safety	3
FSN 312	Nutrition for the Life Cycle	3

**AQUATICS**

PED 134	Advanced Beginning Swimming	1
PED 235	Intermediate Swimming	1
PED 325	Lifesaving	1

**RHYTHMS**

PED 107	Aerobics	1
PED 108	Water Aerobics	1
PED 251	Modern Dance	1
PED 254	Jazz Dance	1

**EXERCISE SCIENCE CURRICULUM  
(B.S., EXERCISE SCIENCE/PHYSICAL EDUCATION)**

First Year			Third Year		
UNI 101	Introduction to University Life	0	EXS 355	Anatomical Kinesiology	3
BIO 100	Biological Science	3	EXS 356	Biomechanics of Human Motion	3
BIO 100L	Biological Science Lab	1	<b>2006-2007 University Catalog</b> (Internship Hours 100 Orthopedics)		
CHM 215	Chemistry	3	PSY 280	Abnormal Psychology	3
CHM 215L	Chemistry Lab	1		(Internship Hours 100 Psychiatry)	
HIS 100	History or HIS 101, 102 or 103	3	PED 365	Adapted Physical Education	3
EXS 170	Introduction to Exercise Science	3	EXS 357	Organization & Administration in Ex Sci	3
ENG 101	Communication Skills I	3	FSN 110	Nutrition for the Life Cycle	3
ENG 102	Communication Skills II	3	SCM 285	Principles of Speech	3
HED 170	Personal/Community Health	3	EXS 447	Exercise Physiology	3
MTH 153	College Algebra & Trigonometry	3	EXS 447L	Exercise Physiology Lab	1
SOC 101	Introduction to Social Science	3	EXS 369	Research Methods and Statistical Eval	3
PED 133	or PED 134 Swimming	1	PED 179	First Aid	2
EXS 265	Therapeutic Exercises and Sports I	2	PSY 380	Physiological Psychology	3
EXS 266	Therapeutic Exercises and Sports II	2	<b>TOTAL</b>		<b>33 cr hrs</b>
<b>TOTAL</b>		<b>34 cr hrs</b>			
<b>Second Year</b>			<b>Fourth Year</b>		
CSC 150	Computer Concepts and Applications	3	EXS 430	Neurological and Pathological	3
	or CLM 165, BAD 184, FIA 180, TED 170			Foundations in Ex Sci	
HUM 210	Humanities I or MUS 301/234, FIA 201/207	3		(Internship Hours 100 Neurology)	
HUM 211	Humanities II or ENG 207/383	3	EXS 387	Clinical Kinesiology I	3
PHY 152	General Physics	3	EXS 388	Clinical Kinesiology II	3
PHY 152L	General Physics Lab	1	EXS 445	Therapeutic Modalities	3
PED 287	Anatomy & Physiology I	3	PED 450	Motor Learning	3
PED 287L	Anatomy & Physiology I Lab	1	EXS 363	Clinical Aspects of Aging	2
PSY 210	Introduction to Psychology	3		(Internship Hours 100 Geriatric)	
EXS 237	Care and Prevention of Athletic Injuries	3	EXS 493C	Clinical Internship (200 Hours Cardiac)	6
	(Internship Hours 100 Orthopedics)		EXS 493D	Clinical Internship	6
HIM 120	Medical Terminology	3		(200 Hours Clinical Specialization)	
PED 288	Anatomy & Physiology II	3	<b>TOTAL</b>		<b>29 cr hrs</b>
PED 288L	Anatomy & Physiology II Lab	1	<b>TOTAL CURRICULUM HOURS</b>		<b>129 cr hrs</b>
PSY 228	Human Growth and Development	3			
	(Internship Hours 100 Pediatrics)				
<b>TOTAL</b>		<b>33 cr hrs</b>			

**DEPARTMENT OF SECONDARY EDUCATION AND SCHOOL LEADERSHIP**  
**Melendez Byrd, Department Head**  
**(757) 823-2926**

The Department of Secondary Education and School Leadership offers a multi-dimensional Urban Education degree program and teacher education to assist in-service and pre-service school practitioners interested in acquiring state-endorsements/certifications as well as enhancing their professional development.

**Secondary School Certification Endorsement**

1. Candidates must take the General Education Core before applying to teacher education (see Office of Student Teaching regarding admission to teacher education.)
2. Students must earn an undergraduate degree in the field in which they plan to teach.

Art/Fine Arts	Earth Science	Mathematics	Physics
Biology	English	Music / Instrumental	
Business	Health	Music / Vocal	
Chemistry	History and Social Studies	Physical Education / Driver Education	

3. Prior to admission to teacher education, students must pass the Praxis I examination and successfully complete 200-level professional education courses:

SED 201	American Schools and the Teaching Profession	SED 233	Seminar in Assessment and Evaluation
			(only for candidates who have not taken PRAXIS 1 examination)

Students who have not met this requirement are not eligible to take 300-level or 400-level professional education (SED) courses in the Teacher Education Program (See admission to teacher education criteria.)

*SED 380	Foundations of Methods in Secondary Schools	3	SED 420	Educational Technology	3
*SED 390	Secondary Social Studies Methods (History and Social Studies Majors only)	3	SED 486	Educational Psychology and Behavior Management	3
SED 405	Reading in the Content Areas	3	SED 488	School/Community Relations	3
			SED 499	Directed Teaching	12

\* Candidates must be accepted to teacher education before taking 300- and 400-level professional education courses (See department or Office of Student Teaching for admissions criteria.) See other requirements under admission to teacher education and directed teaching listed above.

## DEPARTMENT OF SPECIAL EDUCATION

**J. L. Harris, Department Head**

**(757) 823-8714**

The Department of Special Education offers a sequence of courses and experiences designed for persons interested in careers as special educators and related professionals. Program graduates are employed as special class teachers, resource room teachers, regular class teachers, educational programmers and diagnosticians. The curriculum prepares graduates to teach and/or work with exceptional residential schools, hospitals, centers for persons with disabilities and other institutions. A broad-based course sequence ensures competence in planning and implementing individualized education plans for exceptional persons in the least restrictive environment.

Two (2) undergraduate degree programs are offered that prepare graduates for public school teaching with options in (a) Emotional Disturbance/Learning Disabilities and (b) Learning Disabilities/Mental Retardation. In these teacher certification programs, students earn the B.A. degree in Psychology or the B.S. degree in Interdisciplinary Studies.

### Special Education Teacher Certification Endorsements

- Students must be a candidate for a degree in a liberal arts major, such as:
 

English	Interdisciplinary Studies
History and Social Science	Psychology
- Students must pass the PRAXIS examinations.
- Students must complete preparation to teach learners with learning disabilities and mental retardation (LD/MR) or emotional disturbance (LD/ED).
- See other requirements under admission to teacher education and directed teaching listed above.
- Students must take the following courses in Special Education and professional education (24 semester hours):

### Learning Disabilities

SPE 210	American Schools & the Teaching Profession	3	SPE 440	Collaboration, Inclusion, Transition and Other Curricular Adjustments	3
SPE 312	Educational Psychology and Behavioral Management	3			
SPE 344	Teaching Reading to Exceptional Learners	3	SPE 490	Assessment of Exceptional Students	3

### AND

#### Option (a): Mental Retardation

SPE 332	Understanding and Teaching Learners with MR	3	SPE 499C	Directed Teaching-Mental Retardation	6
<b>TOTAL</b>					<b>9 cr hrs</b>

### OR

#### Option (b): Emotional Disturbance

SPE 334	Understanding and Teaching Learners with ED	3	SPE 499A	Directed Teaching-Emotionally Disturbed	6
<b>TOTAL</b>					<b>9 cr hrs</b>

**LEARNING DISABILITIES/MENTAL RETARDATION CURRICULUM****B.A. Degree in Psychology\*\****B.S. Degree in Interdisciplinary Studies\*\*\****FIRST YEAR**

UNI 101	Introduction to University Life	0
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 102	History to 1865 or HIS 103 U.S. History	3
MTH 103	Contemporary Mathematics	3
PED 100	Fundamentals of Fitness for Life	1
PHY 100	Physical Science	3
SOC 101	Introduction to Social Science or	3
FIA 201	Art Appreciation or MUS 301	
	Music Appreciation	3

**TOTAL** **28 cr hrs**

**SECOND YEAR**

CSC 150	Computer Concepts & Applications	3
ENG 207	Introduction to World Literature***	3
PSY 210	Introduction to Psychology	3
PSY 211	Basic Principles of Psychology	3
PSY 228	Developmental Psychology	3
<b>PSY 230</b>	<b>Educational Psychology**</b>	3
PSY 280	Abnormal Psychology	3
SCM 285	Principles of Speech	3
SPE 210	American Schools and the Teaching	3
INT 308	Introduction to Interdisciplinary Studies***	3
<b>PSY 270</b>	<b>Statistics in Psychology**</b>	3
PED 365	Adapted Physical Education	1
	Elective	3

**TOTAL** **31 cr hrs**

**THIRD YEAR**

HIS 370	African History and Culture	3
INT 360	Research in Interdisciplinary Studies***	3
INT 375	Language and Society***	3
PSY 322	Psychology of Exceptional Children	3
<b>PSY 360</b>	<b>Experimental Psychology**</b>	3
<b>PSY 360L</b>	<b>Experimental Psychology Lab**</b>	1
PSY 381	Topics in Psychology	3
SPE 321	Characteristics, Medical and Legal Aspects	3
SPE 332	Understanding and Teaching Learners	3
	with Mental Retardation	
SPE 344	Teaching Reading to Exceptional Learners	3
SPE 440	Collaboration, Inclusion, Transition and	3
	Other Curricular Adjustments	
CSD 212	Speech and Language Development	3
	<b>Elective Psychology</b>	<b>3</b>
	Elective Interdisciplinary Studies	1

**TOTAL** **31 cr hrs**

**FOURTH YEAR**

PSY 390	Fundamentals of Learning	3
INT 322	Approaches to Critical Analysis***	3
INT 411	Ideas and Their Influences***	3
CSC 200	Advanced Computer Concepts	3
<b>PSY 492</b>	<b>Psychology Seminar**</b>	3
SPE 312	Educational Psychology and Behavioral	3
	Management	
SPE 336	Understanding and Teaching Students	3
	with Learning Disabilities	
SPE 490	Assessment of Exceptional Students	3
SPE 499B	Directed Teaching-Learning Disabilities	6
SPE 499C	Directed Teaching-Mental Retardation	6

**TOTAL** **30 cr hrs**

\*Enrollment requires completion of requirements for admission to teacher education.

\*\*Courses for the B.A. in Psychology (Bold)

\*\*\*Courses for the B.S. in Interdisciplinary Studies (Italics)

**EMOTIONAL DISTURBANCE/LEARNING DISABILITIES CURRICULUM****B.A. Degree in Psychology\*\****B.S. Degree in Interdisciplinary Studies\*\*\****FIRST YEAR**

UNI 101	Introduction to University Life	0
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 102	History to 1865 or HIS 103 U.S. History	3
MTH 103	Contemporary Mathematics	3
PED 100	Fundamentals of Fitness for Life	1
PHY 100	Physical Science	3
SOC 101	Introduction to Social Science	3
FIA 201	Art Appreciation or MUS 301 Music App	3
<b>TOTAL</b>		<b>28 cr hrs</b>

**SECOND YEAR**

CSC 150	Computer Concepts and Applications	3
ENG 207	<i>Introduction to World Literature***</i>	3
PSY 210	Introduction to Psychology	3
PSY 211	Basic Principles of Psychology	3
PSY 228	Developmental Psychology	3
<b>PSY 230</b>	<b>Educational Psychology**</b>	3
PSY 280	Abnormal Psychology	3
SCM 285	Principles of Speech	3
SPE 210	American Schools and the Teaching Profession	3
INT 308	<i>Introduction to Interdisciplinary Studies***</i>	3
<b>PSY 270</b>	<b>Psychological Statistics**</b>	3
PED 365	Adapted Physical Education	3
<b>Elective</b>		3
<i>Elective</i>		1
<b>TOTAL</b>		<b>31 cr hrs</b>

**THIRD YEAR**

HIS 370	African History and Culture	3
INT 360	<i>Research in Interdisciplinary Studies***</i>	3
INT 375	<i>Language and Society***</i>	3
PSY 322	Psychology of Exceptional Children	3
<b>PSY 360</b>	<b>Experimental Psychology**</b>	3
<b>PSY 360L</b>	<b>Experimental Psychology Lab**</b>	1
PSY 381	Topics in Psychology	3
SPE 321	Characteristics, Medical and Legal Aspects in Special Education	3
SPE 334	Understanding and Teaching Learners with Emotional Disturbance	3
SPE 344	Teaching Reading to Exceptional Learners	3
SPE 440	Collaboration, Inclusion, Transition and Other Curricular Adjustments	3
CDS 212	Speech and Language Development	3
<b>Elective</b>	<b>Psychology</b>	3
<i>Elective</i>	<i>Interdisciplinary Studies</i>	1
<b>TOTAL</b>		<b>31 cr hrs</b>

**FOURTH YEAR**

PSY 390	Fundamentals of Learning	3
INT 322	<i>Approaches to Critical Analysis***</i>	3
INT 411	<i>Ideas and Their Influences***</i>	3
CSC 200	Advanced Computer Concepts	3
<b>PSY 492</b>	<b>Psychology Seminar**</b>	3
SPE 312	Educational Psychology and Behavioral Management	3
SPE 336	Understanding and Teaching Students with Learning Disabilities	3
SPE 490	Assessment of Exceptional Students	3
SPE 499B	Directed Teaching-Learning Disabilities	6
SPE 499A	Directed Teaching-Emotional	6
<b>TOTAL</b>		<b>30 cr hrs</b>

**\*SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements	43
Major Requirements	77
<b>TOTAL</b>	<b>120 cr hrs</b>

\*Enrollment requires completion of requirements for admission to teacher education.

\*\*Courses for the B.A. in Psychology (Bold)

\*\*\*Courses for the B.S. in Interdisciplinary Studies (Italics)

**PARAPROFESSIONAL EDUCATION CERTIFICATE PROGRAM CURRICULUM****FIRST YEAR****1st Semester**

EDU 101	Collegiate Communication Literacy Skills	
SPE 103	Collegiate Quantitative Literacy Skills	3
SPE 105	Overview of Inclusion Education and Services	3
SPE 107	Human Relations Skills and Ethics	3
CSC 150	Computer Concepts and Applications	3

**2nd Semester**

ENG 101	Communication Skills	3
MTH 103	Mathematics in General Education	3
SPE 109	Guiding Classroom Behaviors of Learners	3
PSY 211	Basic Principles of Psychology	3
SPE 198	Practicum for Paraprofessionals	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**SECOND YEAR****1st Semester**

ENG 102	Communication Skills	3
SPE 111	Learning through Literature	3
PSY 215	Human Growth and Development	3
SPE 299	Internship for Paraprofessionals	3
	Elective	3

**2nd Semester**

SPE 113	Facilitating Reading Instruction	3
EDU 115	Facilitating Learning Mathematics and Science Concepts	3
SPE 210	American Schools and the Teaching	3
SPE 213	Critical Thinking and Assessment Skills	3
	Elective	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**BUSINESS EDUCATION**  
**Leading to the B.S. Degree in Business Education**

**First Year**

UNI 101	Introduction to University Life	0
BAD 175	Introduction to Business	3
CSC 150	Computer Concepts and Applications	3
XXX	Natural Science Elective (Note A)	6
XXXL	Natural Science Lab Elective (Note B)	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MTH 131	Precalculus for Non-Science Majors (See Note C)	3
MTH 132	Calculus for Non-Science Majors (See Note C)	3
PED 100	Fitness for Life or PED 101/102 or Modified PED	1
PSY 210	Introduction to Psychology	3

31 cr hrs

**Second Year**

ACC 201	Principles of Accounting I	3
ACC 202	Principles of Accounting II	3
ECN 211	Principles of Economics I	3
ENG 210	Practical English Grammar	3
FNC 281	Legal Environment of Business	3
MSY 284	Advanced Microcomputing	3
LOG 210	Logic: Critical Thinking	3
SCM 285	Principles of Speech	3
SED 210	Keyboarding III	3
xxx xxx	Humanities (See Note D)	3
TOTAL		30 cr hrs

**Third Year**

ASM 330	Business Communications	3
CSC 160	Visual Basic Programming or CSC 169 Intro to Computer Science	3
MKG 366	Principles of Marketing	3
POS 350	Organization Theory and Behavior	3
SCM 310	Speech for the Classroom Teacher	3
SED 201	Schools and the Teaching Profession	3
SED 324	Business Systems and Procedures	3
XXX	Education Elective	3
SED 380	Foundations of Methods in Secondary Schools	3
XXX	Non-Business Elective	3

**TOTAL** 30 cr hrs

**Fourth Year**

SED 405	Reading in the Content Areas	3
SED 420	Educational Technology	3
SED 486	Educational Psychology and Behavior Mgmt	3
SED 498	Business Methods for Secondary Schools	3
SED 499	Directed Teaching	12
xxx xxx	Global/Cultural & Language Electives (See Note D)	6

**TOTAL** 30 cr hrs

**TOTAL** 121 cr hrs

**Note A:** A student needs to take **TWO** of the following courses:

BIO	100	Biological Sciences
CHM	100	Man/Environment
PHY	100	Physical Science

**Note B:** A student needs to take **ONE** of the following laboratory courses. The laboratory course must be in the same area as one of the science lecture courses taken:

BIO	100L	Biological Science Lab
CHM	100L	Man/Environment Lab
PHY	100L	Physical Science Lab

**Note C:** A student with 600 on the quantitative section of SAT I or a score of 3 or higher on the advanced placement test in mathematics need not take MTH 131. Instead, the student will take MTH 132 and then proceed to take either MTH 300 (Linear Algebra) or a course in natural science or a course from the Global/ Cultural and Language Electives listed in Note D.

**Note D:** Global/Cultural and Foreign Language Electives (9 hours)

A student will choose **THREE** courses from the list below. At least **ONE** of these must be a non-language course. If a foreign language is chosen, the student must take two courses in the same language, e.g., SPN 111 AND SPN 112.

ENG	207	Introduction to World Literature
ENG	383	African-American Literature
FIA	170	African and African-American Art
FIA	301	Basic Art Appreciation
GEO	141	World Regional Geography
GEO	331	Economic Geography
GEO	336	Political Geography
GEO	337	Geography of Africa
HIS	336	African-American History since 1865

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HIS	360	Latin America: Argentina, Brazil, and Chile
HIS	361	Latin America: Readings in Latin American History
HIS	363	Introduction to Modern Near-East
HIS	365	Latin America: Mexico, Central America, and the Caribbean
HIS	370	African History and Culture
HIS	371	African History and Culture
HIS	374	East Asian Civilization
HIS	375	Contemporary Economic System of China
HIS	376	Contemporary Economic System of Japan
HIS	446	Latin America Colonial
HIS	448	Slavery in the Atlantic Basin
HIS	476	Modern China and Modern Japan
HIS	490E	Major Themes in Contemporary Africa
HUM	210	Humanities
HUM	211	Humanities
MUS	234	African-American Music
MUS	301	Music Appreciation
POS	315	Blacks in American Political Process
POS	323	Comparative Government
POS	360	International Politics
POS	442	International Law
POS	461	International Organization
POS	462	The Near (Middle) East in International Affairs
POS	463	Politics of African Nations
POS	467	Introduction to Non-Western Politics
POS	468	A Survey of Contemporary Governments of Asia
PSY	340	Psychology of African Americans
REL	200	Major World Religions
SOC	101	Introduction to Social Science
SOC	237	Racial and Cultural Minorities
SOC	242	Introduction to Anthropology
FRN	111 and 112	Elementary French I and II
GRM	111 and 112	Elementary German I and II
JPN	111 and 112	Elementary Japanese I and II
RUS	111 and 112	Elementary Russian I and II
SPN	111 and 112	Elementary Spanish I and II
SWA	111 and 112	Elementary Swahili I and II

**Note E:** If a student has not passed the PRAXIS I Exam, the student must enroll in SED 233, Seminar in Assessment and Evaluation. Otherwise enroll in SED 488, School and Community Relations.

**Note F:** Students must pass the PRAXIS I Exam prior to enrolling in the following courses:

SED	380	Foundations of Methods in Secondary Schools
SED	405	Reading in the Content Area
SED	420	Educational Technology
SED	486	Educational Psychology and Behavior Management
SED	488	School and Community Relations
SED	498	Business Methods for Secondary Schools
SED	499	Directed Teaching

A student must pass the PRAXIS I Exam to be admitted to teacher education.  
See other requirements under admission to teacher education and directed teaching listed above.



**SCHOOL OF LIBERAL ARTS****Marilyn Broadus-Gay, Dean****William A. Byrne, Assistant Dean****(757) 823-8118**

The School of Liberal Arts embraces ten academic departments in the fine and performing arts, humanities, and social sciences. The departments are English and Foreign Languages, Fine Arts, General Studies, History, Interdisciplinary Studies, Mass Communications and Journalism, Music, Political Science, Psychology, and Sociology. The Army ROTC program is located in the School of Liberal Arts as well.

Students in the School of Liberal Arts have access to a wealth of learning experiences. The School offers students an opportunity to understand and appreciate world cultures as reflected in languages and the arts; enhance communication and interpersonal skills; and prepare for careers supported by studies in the liberal, creative, performing, and media arts.

The social sciences deal with the relationships of mankind. Whether from an economic, political, sociological, psychological or historical perspective, the focus as well as the interest of the social sciences, is on the human condition.

The goals of the School of Liberal Arts are as follows:

1. To provide an intellectually liberating education for students that is conducive to life-long learning.
2. To impart knowledge, strengthen communicative and quantitative abilities, and enhance research and inquiry skills in the various subject matter areas.
3. To develop habits of independent thought and critical thinking.
4. To promote attitudes of understanding, respect, and tolerance for one's own culture and the cultures of other peoples.
5. To engender in students an appreciation of the moral and ethical components of life.
6. To define educational standards that address the changing paradigms and diverse needs of students in a changing global society.
7. To provide a highly qualified pool of graduates for the global workforce.
8. To contribute to the social consciousness and cultural enrichment of the community through the provision of programs, exhibits, and workshops in the arts, humanities, and social sciences.

**TECHNOLOGICAL PROFICIENCY**

The School of Liberal Arts realizes that technological proficiency is an integral component of career preparation and life-long learning. Accordingly, all curricula in the School of Liberal Arts incorporate basic and discipline-appropriate technological instruction.

The SOLA-TEC Center is housed under the School of Liberal Arts. The aim of SOLA-TEC is to infuse technology into every facet of instruction and academic management via modes of delivery and accessibility that are consistent with learning and accountability patterns in contemporary life.

**DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES****Annie S. Perkins, Department Head****(757) 823-8891****DEGREE OFFERED**

Bachelor of Arts in English

The English/Foreign Languages areas of the Department aim to develop in students an understanding of language development and of the structure and uses of language in its various written and spoken forms. It is the Department's goal to help students in all majors to develop facility in the use of the English language for various purposes and contexts and to respond appreciatively to the beauty and power of language in a variety of forms. The Department offers its majors opportunities for concentrations in English/Liberal Arts and Spanish Literature to prepare them for graduate study, teaching or other professions. Students may specialize in theatre performance and technology, African-American literature, creative writing, speech communication, and French literature through the selection of courses approved by the department head.

The Foreign Languages program in the Department seeks to develop students' fundamental skills in French, Spanish, and other languages, as staff resources permit, and to generate interest in foreign cultures. For students concentrating in Spanish literature, the Department offers advanced courses leading to careers and professions enhanced by a mastery of Spanish language and culture.

### ENGLISH REQUIREMENTS

Requirements for a major: Thirty-six or more hours are required in discipline-related courses in all of the concentrations for the Bachelor of Arts in English. **All discipline-related courses must be passed with a grade of C or better.**

Requirements for certification to teach in the state of Virginia: A minimum of thirty-six semester hours (including ENG 101, ENG 102, American and British literature, language, and related courses) is required. Students in the English degree curriculum and the Spanish literature concentration may seek certification to teach in middle or high school.

### FOREIGN LANGUAGE REQUIREMENTS

General foreign language requirements can be fulfilled upon the successful completion of course work through the 212 (or 213: Scientific French/German) level. Students may satisfy all or part of this requirement by obtaining satisfactory scores on a CLEP examination.

Freshmen and transfer students who wish to enter any language course above the 111 level will take a placement test in order to determine their eligibility to pursue advanced courses. This test will be administered by the foreign languages faculty.

Requirements for a concentration in Spanish literature: An English major may have a concentration in Spanish literature. The concentration consists of 24-39 semester hours beyond the SPN 111/112. The Department reserves the right to increase or reduce requirements depending upon the potential of the individual student.

### ASSESSMENT REQUIREMENTS FOR MAJORS

All prospective English graduates will be required to take a comprehensive examination prior to graduation. Dates and times of administration will be announced by the Department. All majors will be required to write and defend a senior thesis or complete a senior project appropriate to their concentration.

English majors must meet the University requirement of passing the Exit Examination of Writing Competency before graduation. This examination should be taken after students have passed ENG-101 and ENG-102 and before students have accumulated 90 credit hours of coursework.

Additional Recommendation:

All students should consider taking LOG 210: Logic and Critical Thinking.

Note: Descriptions of general education humanities courses (HUM 210 and HUM 211) are listed at the end of the course offerings for music.

### ENGLISH DEGREE CURRICULUM

First Year			Third Year		
BIO 100	Biological Science	3	ENG 306	Introduction to Literary Criticism	3
BIO 100L	Biological Science Lab or CHM or PHY 100L	1	ENG 315	Survey of English Literature I	3
CHM 100	Chemistry: Man & Environment or PHY 100	3	ENG 316	Survey of English Literature II	3
CSC 150	Computer Concepts and Applications	3	ENG 341	Survey of American Literature I	3
ENG 101	Communication Skills I	3	ENG 342	Survey of American Literature II	3
ENG 102	Communication Skills II	3	ENG 350	Seminar in Literacy Analy and Interpret	3
ENG 114	Techniques of Vocabulary Building	2	ENG 383	African-American Literature	3
FRN 111	Elementary French I or SPN 111	3	ENG 410	The History of the English Language	3
FRN 112	Elementary French II or SPN 112	3	ENG 413	Shakespeare	3
UNI 101	Introduction to University Life	0	ENG 419	Contemporary American English Grammar	3
HED 100	Personal and Community Health	2	SOC 101	Introduction to Social Science	3
HIS 100	History of Civilization or HIS 101, 102, or 103	3	<b>TOTAL</b>		<b>33 cr hrs</b>
PED 100	Fundamentals of Fitness for Life	1	<b>Fourth Year</b>		
<b>TOTAL</b>		<b>30 cr hrs</b>	Unrestricted Electives		15
<b>Second Year</b>			ENG 412	Chaucer, or ENG 430	3
CSC 200	Advanced Computer Concepts	3	ENG 450	Research Seminar and Senior Thesis	3
ENG 207	Introduction to World Literature	3	ENG 454	Young Adult Literature	3
ENG 210	Practical English Grammar	3	ENG 456	Women's Studies or ENG 459	3
ENG 286	Advanced Composition	3	ENG 460	Assessment & Evaluation of Writing or ENG 449	3
FRN 211	Intermediate French I or SPN 211	3	<b>TOTAL</b>		<b>30 cr hrs</b>
FRN 212	Intermediate French II or SPN 212	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
HUM 210	Humanities I or		General Education Requirements		40
HUM 211	Humanities II	3	Major Requirements		65
MTH 103	Contemporary Mathematics	3	Electives		15
SCM 285	Principles of Speech	3	<b>TOTAL</b>		<b>120 cr hrs</b>
<b>TOTAL</b>		<b>27 cr hrs</b>			

### TEACHER LICENSURE ENDORSEMENT

Students wishing to pursue a career in teaching must take the following steps:

1. Follow the curriculum for the degree in English.
2. Use the elective hours for professional courses.
3. See the academic advisor in the Department of English and Foreign Languages.
4. See the academic advisor in the Department of Secondary Education and School Leadership.
5. Take the PRAXIS I test and make a passing score in order to be admitted to the teacher education program.
6. Pass the PRAXIS II examination before graduation.
7. Take the following professional education courses (18 semester hours) plus student teaching (12 semester hours):

SED 201	American Schools and the Teaching Profession	SED 420	Educational Technology
SED 380	Foundations of Methods in Secondary Schools	SED 486	Educational Psychology and Behavior Management
SED 405	Reading in the Content Area	SED 488	School/Community Relations
		SED 499	Directed Teaching and Seminar

**Note:** Students seeking middle school and high school endorsement in English must also take HIS 102 or 103 and 3 additional hours of mathematics.

## SPANISH LITERATURE CONCENTRATION CURRICULUM

**First Year**

BIO 100	Biological Science	3
BIO 100L	Biological Science Lab or CHM or PHY 100L	1
CHM 100	Chemistry: Man & Environment or PHY 100	3
CSC 150	Computer Concepts and Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
UNI 101	Introduction to University Life	0
HIS 100	History of Civilization or HIS 101, 102, or 103	3
MTH 103	Contemporary Mathematics	3
PED 100	Fundamentals of Fitness for Life	1
SPN 111	Elementary Spanish I or SPN 211	3
SPN 112	Elementary Spanish II or SPN 212	3
<b>TOTAL</b>		<b>29 cr hrs</b>

**Second Year**

CSC 200	Advanced Computer Concepts	3
ENG 207	Introduction to World Literature	3
ENG 210	Practical English Grammar	3
ENG 286	Advanced Composition	3
HED 100	Personal and Community Health	2
SCM 285	Principles of Speech	3
SOC 101	Introduction to Social Science	3
SPN 211	Intermediate Spanish I or SPN 215 or 216	3
SPN 212	Intermediate Spanish II or SPN 215 or 216	3
SPN 220	Spanish Civilization	3
<b>TOTAL</b>		<b>29 cr hrs</b>

**Third Year**

ENG 306	Introduction to Literary Criticism	3
ENG 315	Survey of English Literature I	3
ENG 316	Survey of English Literature II	3
ENG 341	American Literature I	3
ENG 342	American Literature II	3
ENG 350	Seminar in Literary Analysis and Interpretation	3
ENG 383	African-American Literature	3
SPN 321	Survey of Spanish Literature I	3
SPN 322	Survey of Spanish Literature II	3
SPN 340	Drama of the Golden Age	3
SPN 450	Phonetics or SPN 485	2
<b>TOTAL</b>		<b>32 cr hrs</b>

**Fourth Year**

Electives		3
ENG 410	History of the English Language or ENG 419	3
ENG 413	Shakespeare	3
HUM 210	Humanities I OR	
HUM 211	Humanities II	3
SPN 320	Latin-American Civilization	3
SPN 332	Literature of the 19th Century	3
SPN 333	Literature of the 20th Century	3
SPN 350	Cervantes	3
SPN 454	Advanced Grammar & Composition	3
SPN 490	Senior Seminar	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements	40
Major Requirements	77
Electives	3
<b>TOTAL</b>	<b>120 cr hrs</b>

**NOTE:** Students seeking a license to teach in the middle school and high school will take the following additional courses and see their advisors in the Department of English and Foreign Languages and in the Department of Secondary Education and School Leadership:

ENG 454	SED 201	SED 420	SED 499
HIS 102 OR 103	SED 380	SED 486	
MTH (elective)	SED 405	SED 488	

**REQUIREMENTS FOR A MINOR IN ENGLISH:**

For an English minor, non-English majors should take 9 credit hours of CORE courses and 9 credit hours of other English courses. The Department recommends that a student seeking an English minor choose ENG 207: Introduction to World Literature in the Humanities category and ENG 383: African-American Literature in the Cultural Elective category under the General Education requirements in the Catalog. The 18 credit hours for the minor in English should be distributed as follows:

Nine (9) credit hours of CORE courses:

ENG 210: Practical English Grammar or  
 ENG 286: Advanced Composition  
 ENG 341 or 342: Survey of American Literature I or II  
 ENG 306: Introduction to Literary Criticism

Additional nine (9) credit hours of courses:

ENG 3XX or ENG 4XX  
 ENG 3XX or ENG 4XX  
 ENG 3XX or ENG 4XX

**DEPARTMENT OF FINE ARTS**  
**Chinedu Okala, Department Head**  
**(757) 823-8844**

The Department of Fine Arts takes its title and general direction from the traditional roles of drawing, painting, and sculpture. However, the goal of recent years has been to eliminate constricting departmental barriers, to increase interrelationship of all creative activities, and to broaden the educational potential, while continuing the infusion of relevant technologies in hardware and software. This has placed greater emphasis on a wider spectrum of courses and programs, more varied technology, and a neoteric pedagogy. The role of the creative enterprise in society is explored in special projects.

**DEGREES OFFERED**

Bachelor of Arts In Fine Arts And Graphic Design

The degree program offers two sequences: Fine Arts and Fine Arts Education.

**ASSESSMENT REQUIREMENTS:**

All students majoring in the Department of Fine Arts are required to maintain a professional portfolio that demonstrates their creative development. The portfolio is reviewed at scheduled intervals for advisement purposes. Participation in the "Seniors Gallery Exhibition" and other co-curricular activities scheduled by the Department is required of all graduates. Continuous verifiable engagement with the local art community is required by the Department.

**FINE ARTS CURRICULUM**

<b>First Year</b>			<b>Third Year</b>		
ENG 101	Communication Skills I	3	FIA 240	Sculpture, Carving & Welding	3
ENG 102	Communication Skills II	3	FIA 261	Printmaking	3
FIA 114	Basic Design	3	FIA 270	History of Art Survey I	3
FIA 115	Basic Design II	3	FIA 271	History of Art Survey II	3
FIA 116	Basic Design III	3	SCM 285	Principles of Speech	3
FIA 120	Drawing	3	FIA 320	Intermediate Drawing	3
FIA 121	Drawing	3	FIA 370	African/American Art History	3
FIA 180	Computer Literacy for the Arts	3	FIA XXX	FIA Elective (300 level FIA or FDM class)	3
HED 100	Personal & Community Health	2	XXX	Elective (200 or 300 level free elective or FIA or FDM)	3
MTH 103	Contemporary Mathematics	3	XXX	Elective (200 or 300 level free elective or FIA or FDM)	3
UNI 101	Introduction to University Life	0			
PED 100	Fundamentals of Fitness for Life	1			
<b>TOTAL</b>		<b>30 cr hrs</b>	<b>TOTAL</b>		<b>30 cr hrs</b>
<b>Second Year</b>			<b>Fourth Year</b>		
BIO 100	Biological Science	3	XXX	Cultural Elective (limited to one of the selected cultural electives)	3
CHM 100	Chemistry or PHY 100	3	FIA XXX	FIA Elective (300 or 400 level FIA or FDM Class)	3
CHM 100L	Chemistry Lab or PHY 100L	1	XXX	Elective (300 or 400 level free elective including FIA or FDM)	3
FIA 140	Ceramics	3	FIA XXX	FIA Elective (400 level FIA or FDM class)	3
FIA 220	Life Drawing	3	FIA XXX	FIA Elective (400 level FIA or FDM class)	3
FIA 234	Painting	3	FIA 470	Modern Art History	3
FIA XXX	FIA Elective (100 or 200 level FIA or FDM)	3	FIA 491	Advanced Studio Problems	3
XXX	Elective(100 or 200 level free elective or FIA or FDM)	3	XXX	Elective (300 or 400 level free elective including FIA or FDM)	3
XXX	Elective (100 or 200 level free elective or FIA or FDM)	3	FIA 495	Portfolio Preparation & Senior Exhibition	2
HIS 100	History of Civilization	3	HUM 210	Humanities	3
SOC 101	Introduction to Sociology	3			
<b>TOTAL</b>		<b>31 cr hrs</b>	<b>TOTAL</b>		<b>29 cr hrs</b>
<b>SUMMARY OF GRADUATION REQUIREMENTS</b>					
General Education Requirements					40
Major Requirements					62
Electives					18
<b>TOTAL</b>					<b>120 cr hrs</b>

A non-art minor can be established by choosing carefully with your advisor the 15 – 18 necessary hours of electives.

**RECOMMENDED ELECTIVES:****CULTURAL ELECTIVES:**

ENG 383

HIS 371

POS 315

SOC 237

HIS 336

MUS 234

PSY 340

FINE ART ELECTIVES may be any FIA or FDM 100, 200, 300, or 400 level courses listed in the NSU Student Handbook, the Department of Fine Arts Handbook, or the NSU Semester Schedule Book.)

**FINE ARTS EDUCATION CURRICULUM****First Year**

ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
FIA 114	Basic Design	3
FIA 115	Basic Design II	3
FIA 116	Basic Design III	3
FIA 120	Drawing	3
FIA 121	Drawing	3
FIA 140	Ceramics	3
FIA 160	Lettering	3
HED 100	Personal & Community Health	2
UNI 101	Introduction to University Life	0
PED 100	Fundamentals of Fitness for Life	1
<b>TOTAL</b>		<b>30 cr hrs</b>

**Second Year**

BIO 100	Biological Science	3
CHM 100	Chemistry or PHY 100	3
CHM 100L	Chemistry Lab or PHY 100L	1
FIA 141	Ceramics	3
FIA 280	Computer Applications in the Arts	3
FIA 214	Craft Design	3
FIA 220	Life Drawing	3
FIA 240	Sculpture, Carving, & Welding	3
FIA 261	Printmaking	3
HIS 102	History of Civilization	3
MTH 103	Contemporary Mathematics	3
<b>TOTAL</b>		<b>31 cr hrs</b>

**Third Year**

Cultural Elective*		3
FIA 234	Painting	3
FIA 270	History of Art Survey I	3
FIA 271	History of Art Survey II	3
FIA 314	Fine Arts & Methods	3
SED 201	American Schools & the Teaching Profession	3
SED 233	Critical Thinking & Assessment Skills	3
SED 380	Foundations of Methods in Secondary Education	3
SOC 101	Introduction to Social Sciences	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**Fourth Year**

FIA 320	Intermediate Drawing	3
FIA 365	Elementary Photography	3
HUM 210	Humanities	3
SED 420	Educational Technology I	3
SED 486	Educational Sociology	3
SED 488	School/Community Relations	3
SED 499	Directed Teaching	12
SED 499P	Student Teaching Professional Seminar	0
<b>TOTAL</b>		<b>30 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements	40
Professional Education Requirements	27
Major Requirements	54
<b>TOTAL</b>	<b>121 cr hrs</b>

**Teacher Licensure Endorsement:**

Students wishing to pursue a career in teaching art must take the following steps:

1. Follow the curriculum for the degree in Fine Arts.
2. Use elective hours for professional courses.
3. See the academic advisor in their major department.

4. See the academic advisor in the School of Education.
5. Pass the PRAXIS I Examination prior to applying for admission to Teacher Education.
6. Pass the PRAXIS II Examination before graduation.

**NOTE:** Endorsement is for K through 12.

**\*RECOMMENDED ELECTIVES:**

ENG 383	FIA 370	HIS 336	HIS 371	PSY 340
FIA 250	FIA 470	HIS 337	MUS 234	SED 405
FIA 251	HIS 335	HIS 370	POS 315	SOC 237

**MINOR IN FINE ARTS** (for students majoring in other departments)

**REQUIREMENTS AND OPTIONS ARE AS FOLLOWS:**

**REQUIRED COURSES:**

FIA 115	Basic Design II	3	FIA 3XX	Dept. Elective (FDM or FIA)	3
FIA 120	Basic Drawing I	3	FIA 3XX OR 4XX		
FIA 260	Introduction to Advertising	3	Dept. Elective (300 or 400 level)		3
FIA 3XX	Dept. Elective (FDM or FIA)	3	<b>TOTAL HOURS NEEDED:</b>		<b>18</b>

**NOTE:** All department FIA or FDM electives may be chosen from those listed in the Fine Arts Department's Handbook, the NSU Student Catalog or the NSU Schedule of Classes for each semester. The electives should be chosen after a student has consulted with his or her advisor.

FIA 115 Basic Design II, a design development course in color design, is necessary for all students. The FDM designation refers to the fashion classes, and the FIA designation refers to all of the other Fine Arts studio and history art classes.

**DEPARTMENT OF GENERAL STUDIES**

**Consult Academic Department Heads**

The Office of the First Year Experience provides three courses designed to address the needs of first year students (introducing them to university life), undeclared students and students on academic probation. For more information, please phone (757) 823-8507 or see [www.nsu.edu](http://www.nsu.edu).

The Honors Program coordinates the honors seminars. For more information, please phone the director at (757) 823-8208 or email the director at [honors@nsu.edu](mailto:honors@nsu.edu).

**DEPARTMENT OF HISTORY**

**Charles H. Ford, Department Head**

**(757) 823-8828**

The Department of History provides students with a critical intellectual framework for assessing and understanding human affairs. The Department offers a broad spectrum of history and geography courses leading to the Bachelor of Arts degree in history. Curriculum sequences are available in History, History Social Science (Education), and History Military Science (Army and Navy).

The general objectives of the Department are as follows:

1. To enhance students' intellectual perspective by enriching their liberal education studies.
2. To develop students' research, critical thinking, analytical and writing skills.
3. To familiarize students with the traditions of American history and the contributions of African Americans to that history.
4. To introduce students to the heritage of world civilizations and to foster in them an understanding and appreciation of those civilizations.
5. To prepare students to be informed and responsible members of a democratic society.
6. To prepare departmental majors for their professions and careers.

The departmental degree program is designed to prepare students for careers in law, teaching, public relations, journalism, foreign services, business, and other professions.

## Assessment

In order to monitor and evaluate students' academic progress at Norfolk State in accordance with state mandates, the University has developed an assessment program. All History majors are required to participate in this program as designed and administered by the Department.

It is the policy of the History Department that History majors take the required 100-level and 200-level classes (HIS 100, HIS 101, HIS 102, HIS 103, and HIS 205) prior to registering for any upper-level (HIS 300+) classes. In order to take upper-level classes before the completion of the 100-level surveys, students must receive permission from the chair. HIS 205, Introduction to History, should be taken by all History majors and minors after the third semester of admission to the University and/or after the student has taken the basic American history sequence of HIS 102 and HIS 103.

Upon completion of the survey courses, students must take a departmental assessment test measuring their competency in American and world history. The results of this test will be used for diagnostic purposes to inform students of the progress they have made and to point out those areas in which they are still deficient. If students pass the test, they are relieved of any future requirements to take another assessment test. If students do not pass the test, they may retake it once a semester until it is passed.

Each history major must pass the departmental assessment test. Those students who have not passed the test before enrolling in HIS 497 must pass the assessment examination as a part of the requirements of that course. A student who does not pass the assessment test before the end of HIS 497 will receive an "I" for the course and will, subsequently, not be given a grade for the course until the test is passed. Because HIS 497 is a required course, as well as the Department's capstone course, students cannot complete any of the History curricula--and therefore cannot graduate--without completing this course.

The assessment test is comprised of three parts:

- Multiple choice questions
- Essay questions drawn from both American and world history
- Map exercises, including identification of countries

For further information, contact the History Department: Phone (757) 823 8828 or e-mail [chford@nsu.edu](mailto:chford@nsu.edu) or [lgrant@nsu.edu](mailto:lgrant@nsu.edu).

## HISTORY CURRICULUM

(**Note:** Students in this curriculum may tailor their electives to include an emphasis on African and African Diaspora Studies. See corresponding certificate program below.)

First Year			Second Year		
UNI 101	Introduction to University Life	0	HUM 210 or FIA 201 or MUS 301		3
BIO 100	Biological Science	3	HUM 211 or FIA 201 or MUS 301		3
BIO 100L	Biological Science Lab	1	Electives		6
CSC 150	Computer Concepts & Applications	3	HIS 102	History of World Civilizations, Part 1	3
ENG 101	Communication Skills I	3	HIS 103	History of World Civilizations, Part 2	3
ENG 102	Communication Skills II	3	LOG 210	Logic: Critical Thinking	3
FL 111	Foreign Language	3	PHY 100	Physical Science	3
FL 112	Foreign Language	3	POS 100	American National Government	3
HED 100	Personal & Community Health	2	HIS 205	Introduction to History (FO)	3
HIS 102	U.S. History to 1865	3	<b>TOTAL</b>		<b>30 cr hrs</b>
HIS 103	U.S. History since 1865	3			
MTH 103	Contemporary Mathematics	3			
PED 100	Fundamentals of Fitness for Life	1			
SOC 101	Introduction to the Social Sciences	3			
<b>TOTAL</b>		<b>34 cr hrs</b>			
Third Year			Fourth Year		
HIS 3XX	HIS 4XX Non-Western History	6	Electives		8
	Electives		History Electives		9
ECN 211	Principles of Economics	3	ENG 207	Literature of the Western World or ENG 315	
Elective		3	or ENG 316		3
CSC 200	Advanced Computer Concepts	3	HIS 497	Introduction to Historical Research	3
GEO 130	Principles of Geography	3	POS 430	Modern Theory or POS 431**	3
ENG 203	Advanced Communication Skills		<b>TOTAL</b>		<b>26 cr hrs</b>
	or ENG 286 or ENG 303	3			
ENG 383	African American Literature		<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
	or FIA 170 or MUS 234 or HIS 335/336	3	General Education Requirements		40
HIS 439	United States from 1932 to Present	3	Major Requirements		63
SCM 285	Principles of Speech	3	Electives		17
<b>TOTAL</b>		<b>30 cr hrs</b>	<b>TOTAL</b>		<b>120 cr hrs</b>

(Twenty-one semester hours of History at the 300-400 level are required for a major in the Department, with a minimum of six credit hours of non-Western history.)



## HISTORY AND SOCIAL SCIENCE/EDUCATION CURRICULUM

**First Year**

UNI 101	Introduction to University Life	0
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
CSC 150	Computer Concepts & Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
FL 111	Foreign Language	3
FL 112	Foreign Language	3
HED 100	Personal and Community Health	2
HIS 102	U.S. History to 1865	3
HIS 103	U.S. History since 1865	3
SOC 101	Introduction to the Social Sciences	3
MTH 103	Contemporary Mathematics	3
PED 100	Fundamentals of Fitness for Life	1
<b>TOTAL</b>		<b>34 cr hrs</b>

**Second Year**

HUM 210	Humanities or FIA 201 or MUS 301	3
HUM 211	Humanities or FIA 201 or MUS 301	3
GEO 130	Principles of Geography	3
HIS 100	History of World Civilizations, Part 1	3
HIS 101	History of World Civilizations, Part 2	3
LOG 210	Logic: Critical Thinking	3
PHY 100	Physical Science	3
POS 100	American Government	3
POS 231	American State & Local Government	3
POS 430	Modern Theory or POS 431	3
SED 201	American Schools & the Teaching Profession	3
HIS 205	Introduction to History (FO)	3
<b>TOTAL</b>		<b>36 cr hrs</b>

**Third Year**

History Elective		3
ECN 211	Principles of Economics	3
ECN 212	Principles of Economics	3
ENG 203	Advanced Communication Skills or ENG 286 or ENG 207 or ENG 303	3
ENG 383	African American Literature or FIA 170 or MUS 234 or HIS 335/336	3
HIS 346	Twentieth Century Europe	3
HIS 328	History and Government of Virginia	3
HIS 439	United States from 1932 to Present	3
SED 380	Foundations of Methods in Secondary Schools**	3
SED 390	Secondary Social Studies Methods	3
SED 420	Educational Technology	3
SED 486	Educational Psychology & Behavior Management	3

**Fourth Year**

Fourth Year		
Non-Western History Electives		6
GEO XXX	Geography Advanced Course	3
HIS 497	Introduction to Historical Research	3
POS 360	International Politics	3
SCM 285	Principles of Speech	3
SED 488	School-Community Relations	3
SED 499	Directed Teaching	12
<b>TOTAL</b>		<b>33 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirement	40
History-Social Science	69
Professional Education Core (including 12 Hours of Directed Teaching)	30
<b>TOTAL</b>	<b>139 cr hrs</b>

**Endorsement Requirements:**

The Department requires 36 hours in history including 15 hours in lower level U.S. history, world civilization, and introduction to history courses, as well as 21 hours of advanced history courses (300-400 level) with a minimum of 6 credit hours of non-Western courses. The candidate must also complete 18 hours of professional education courses and 12 hours of student teaching for certification in secondary education.

A minimum grade of "C" is required in all history and geography, political science, economics, professional education, and English 101, 102, and 203 courses. These requirements apply to all areas of endorsement.

\*Students must pass the PRAXIS I Test prior to applying for admission to Teacher Education and enrollment in upper level professional education courses. SED 233, while not required, may be taken before taking the PRAXIS Exam.

\*\*Must be taken prior to directed teaching.

To be endorsed as a teacher in social studies, the applicant shall complete 30 hours of education courses and 42 hours of social studies courses, including 18 upper level semester hours in history, 12 semester hours in political science, 6 semester hours in geography, and 6 semester hours in economics. Within the endorsement, the applicant wishing to teach a course in cultural anthropology and sociology or social psychology must complete a minimum of 6 semester hours in these disciplines.

An applicant seeking a separate endorsement in history must complete 24 semester hours: American history (including Virginia history), European history, world history, and contemporary affairs (State Department of Education Guidelines).

**For Early Childhood Certification Endorsement:**

Students must fulfill the degree requirements for the History and Social Science Curriculum and take the following courses in Early Childhood Education and professional education (18 semester hours) as well as student teaching (12 semester hours):

SED 201	American Schools and the Teaching Profession	ECE 461	Curriculum and Instruction in Early Primary
SED 233	Seminar in Assessment and Evaluation	ECE 484	Teaching Reading in Early Childhood Education
ECE 274	The Study of Young Children	ECE 499	Directed Teaching
ECE 460	Curriculum and Instruction in Preschool and Kindergarten		

**\*For Special Education Certification Endorsement:**

Students must fulfill the degree requirements for the History and Social Science curriculum and take the prescribed curriculum (24 semester hours) in Special Education and professional education (see Department of Special Education) as well as 12 semester hours of student teaching.

**HISTORY-MILITARY SCIENCE (ARMY) CURRICULUM**

<b>First Year</b>			<b>Third Year</b>		
UNI 101	Introduction to University Life	0	Non-Western History Electives		6
BIO 100	Biological Science	3	ENG 383	African-American Literature	
BIO 100L	Biological Science Lab	1		or FIA 170 or MUS 234 or HIS 335/336	3
CSC 150	Computer Concepts & Applications	3	CSC 200	Advanced Computer Concepts	3
ENG 101	Communication Skills I	3	FL 111	Foreign Language	3
ENG 102	Communication Skills II	3	FL 112	Foreign Language	3
HIS 102	U. S. History until 1865	3	HIS 380	American Military History	3
HIS 103	U. S. History Since 1865	3	MSL 301	Advanced Leadership Management	3
POS 100	American National Government	3	MSL 301D	Drill and Ceremonies	1
MSL 101	Fundamentals of Leadership/Management	2	MSL 302	Advanced Leadership Management	3
MSL 102	Fundamentals of Leadership/Management	2	MSL 302D	Drill and Ceremonies	1
MSL 101D	Basic Drill & Ceremony or MSL 112D	1	MSL 313	Advanced Camp*	0
MTH 103	Contemporary Mathematics	3	SCM 285	Principles of Speech	3
<b>TOTAL</b>		<b>30 cr hrs</b>	<b>TOTAL</b>		<b>32 cr hrs</b>
<b>Second Year</b>			<b>Fourth Year</b>		
SOC 101	Introduction to Social Science	3	History Electives (300-400 level)		6
ENG 203	Advanced Communication Skills or ENG 207 or ENG 286 or ENG 303	3	GEO 130	Principles of Geography	3
HIS 100	History of World Civilizations, Part 1	3	HIS 439	United States from 1932 to Present (SO)	3
HIS 101	History of World Civilizations, Part 2	3	HIS 497	Introduction to Historical Research (FO)	3
HUM 210	Humanities or FIA 201 or MUS 301	3	MSL 401	Theory/Dynamics of Military Team	3
HUM 211	Humanities or FIA 201 or MUS 301	3	MSL 401D	Drill and Ceremonies	1
LOG 210	Logic: Critical Thinking	3	MSL 402	Theory/Dynamics of Military Team	3
MSL 201	Applied Leadership/Management	2	MSL 402D	Drill and Ceremonies	1
MSL 201D	Drill and Ceremonies or MSL 212D	1	POS 360	International Politics	3
MSL 202	Applied Leadership/Management	2	<b>TOTAL</b>		<b>26 cr hrs</b>
PHY 100	Physical Science	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
POS 100	American National Government	3	General Education Requirement		40
<b>TOTAL</b>		<b>32 cr hrs</b>	Major Requirements		54
			Military Science*		26
			<b>TOTAL</b>		<b>120 cr hrs</b>

For the History Military Science (Army) Sequence, 36 hours in history are required, of which 21 must be at the 300 or 400 level, with a minimum of 6 credit hours of non-Western history. Twenty-six credit hours in Military Science are required.

\*Juniors may receive 4 semester hours credit for summer camp exercises, but these credits will not be a part of scheduling.

**HISTORY MILITARY SCIENCE (NAVY) CURRICULUM****First Year**

UNI 101	Introduction to University Life	0
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
CSC 150	Computer Concepts & Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HIS 102	U.S. History to 1865	3
HIS 103	U.S. History Since 1865	3
HIS 205	Introduction to History	3
MTH 103	Contemporary Mathematics	3
NSC 111	Naval Laboratory	1
NSC 112	Naval Laboratory II	1
SOC 101	Introduction to Social Science	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**Second Year**

HIS 100	History of World Civilizations, Part 1	3
HIS 101	History of World Civilizations, Part 2	3
HIS 205	Introduction to History	3
HUM 210	Humanities or FIA 201 or MUS 301	3
HUM 211	Humanities or FIA 201 or MUS 301	3
LOG 210	Logic: Critical Thinking	3
NSC 201	Naval Ship Systems I (Engineering)	3
NSC 202	Naval Ship Systems II (Weapons)	3
NSC 211	Naval Laboratory III	1
NSC 212	Naval Laboratory IV	1
ENG 203	Advanced Communication Skills or ENG 207 or ENG 286 or ENG 303	3
PHY 100	Physical Science	3
<b>TOTAL</b>		<b>32 cr hrs</b>

**Third Year**

	Non-Western History Electives	6
ENG 383	African-American Literature or FIA 170 or MUS 234 or HIS 335/336	3
CSC 200	Advanced Computer Concepts	3
FL 111	Foreign Language	3
FL 112	Foreign Language	3
HIS 380	American Military History	3
NSC 301	Navigation and Naval Operations I	3
NSC 302	Navigation and Naval Operations II	3
NSC 311	Naval Laboratory V	1
NSC 312	Naval Laboratory VI	1
SCM 285	Principles of Speech	3
<b>TOTAL</b>		<b>32 cr hrs</b>

**Fourth Year**

	History Electives (300-400 level)	6
GEO 130	Principles of Geography	3
HIS 439	United States from 1932 to Present	3
HIS 497	Introduction to Historical Research	3
NSC 401	Leadership and Management I	3
NSC 402	Leadership and Management II	3
NSC 411	Naval Laboratory VII	1
NSC 412	Naval Laboratory VIII	1
POS 360	International Politics	3
<b>TOTAL</b>		<b>26 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

	General Education Requirement	40
	Major Requirements	54
	Military Science	26
<b>TOTAL</b>		<b>120 cr hrs</b>

For the History Military Science (Navy) Sequence, 36 hours in history are required, of which 21 must be at the 300 or 400 level, with a minimum of 6 credit hours of non-Western history. Twenty-six credit hours in Military Science are required.

**MINOR IN HISTORY**

For those students in other majors seeking a minor in history, the following program is offered:

**HISTORY MINOR**

HIS 205	Introduction to History	3
HIS 3XX-HIS 4XX	History Electives	12
<b>Total</b>		<b>15 cr hrs</b>

**CERTIFICATE PROGRAM IN AFRICAN AND AFRICAN DIASPORAN STUDIES**

This certificate program is designed for those students who are interested in the making of the cultures of persons of African descent. The histories of the Caribbean, Latin America, Africa, and North America are its key elements. Participating faculty will require students to engage in multidisciplinary approaches in studying the formation of racial and ethnic identities, among other topics, in African and African Diasporan cultures. The program will underscore the connection between the formation of those identities and economic developments in their surrounding societies.

**Certificate Program Prerequisites:**

HIS 335 African American History, Part 1	3	HIS 336 African American History, Part 2	3
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**Required Courses for Certificate Program:**

HIS 490AI Introduction to African and African Diasporan Studies	3	HIS 370 African History and Culture Pt 1	3
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**Certificate Program Electives (Select one from each grouping.) 15 credit hrs.**

HIS 371	African History and Culture, Part 2, or	HIS 490E	Major Themes in Contemporary Africa
HIS 365	Caribbean and Latin American History, or	HIS 448	Slavery in the Atlantic Basin
HIS 446	Colonial Latin America, or		
ENG 383	African American Literature, or	ENG 433	African and African American Biography and Autobiography, or
ENG 384	African American Literature: Poetry, or	ENG 440	Seminar in African and African American Literature, or
ENG 385	African American Literature: Fiction, or	ENG 458	Southern Black Female Aesthetic
ENG 432	African and African American Novel, or		
DRM 219	African American Drama, or	MUS 335	Jazz Literature and Criticism, or
FIA 370	African American Art, or	MUS 336	Jazz History
MUS 234	African American Music, or		
GEO 337	Geography of Africa, or	POS 463	Politics of African Nations, or
REL 330	History and Theology of the Black Church, or	PSY 340	Psychology of the African American, or
JRN 299	African Americans and Mass Media, or	SOC 237	Racial and Cultural Minorities, or
POS 315	African American Politics, or	INT 412	Contemporary Globalization

**TOTAL CREDITS FOR CERTIFICATE PROGRAM:****21 cr hrs****DEPARTMENT OF INTERDISCIPLINARY STUDIES**

**S. Korsi Dogbe, Department Head**  
**(757) 823-8198**

A Bachelor of Science degree in Interdisciplinary Studies is obtained through this program. It is designed to provide a strong liberal arts foundation that enables students to develop the skills to think critically and holistically. Interdisciplinary Studies is a curriculum approach that applies methodology and language from more than one discipline to examine a central theme, issue, problem, topic or experience. The program has four basic components:

1	The General Education Core Requirements	40
2	Interdisciplinary Major Requirements	
	Discipline Core & Technology Supplement	18
3	Areas of Concentration	
	(Including last 3 INT Core Courses)	45
4	Electives	17
	<b>TOTAL</b>	<b>120 cr hrs</b>

**Discipline Core**

(Courses to be completed with grade of "C" or better)

INT 308	Introduction to Interdisciplinary Studies	3	INT 375	Language and Society	3
INT 322	Approaches to Critical Analysis	3	INT 411	Ideas and Influences	3
INT 360	Research in Interdisciplinary Studies	3			

**INCLUDED WITH CONCENTRATION I:**

INT 412	Contemporary Globalization	3
INT 470	Advanced Interdisciplinary Studies Seminar	3
INT 477	Senior Thesis	3

**Technology Supplement**

CSC 200	Advanced Computer Concepts	3
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**CONCENTRATION I** (Includes last 3 INT CORE Courses) 15

**CONCENTRATION II** 15

**CONCENTRATION III** 15

**NOTE:** It is strongly recommended that all INT Core courses be taken in numerical order.

**Option:** (Approval of Department Head and School Dean)

Students are encouraged to explore new relationships among established areas of knowledge and to take an active part in designing their personalized curricula. To this end, it is possible for students who meet guidelines established by the Department to satisfy some of the course requirements via transfer credit or extensive coursework taken previously. In all such cases, approval of the Department Head and the School Dean is required.

**INTERDISCIPLINARY STUDIES CURRICULUM****First Year**

UNI 101	Introduction to University Life	0
*CSC 150	Computer Concepts and Applications.	3
BIO 100	Biological Science or BIO 110	3
BIO 100L	Biological Science Lab or CHM 100L or PHY 100L	1
CHM 100	Chemistry or CHM 110 or PHY 100	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal & Community Health	2
HIS 100	HIS 101, 102, or 103	3
MTH 103	College Algebra or higher	3
PED 100	Fundamentals of Fitness for Life	1
SOC 101	Introduction to Social Science	3
INT 308	Introduction to Interdisciplinary Studies	3
<b>TOTAL</b>		<b>31 cr hrs</b>

\*or CLM 165, CLS 165, CSC 169, CIT 150, EEN 141, FIA 180, or TED 170

**Second Year**

Concentration Area III		15
SCM 285	Principles of Speech	3
HUM 210 & HUM 211	Humanities	6
INT 322	Approaches to Critical Analysis	3
INT 360	Research in Interdisciplinary Studies	3
INT 375	Language and Society	3
<b>TOTAL</b>		<b>33 cr hrs</b>

**Third Year**

CSC 200	Advanced Computer Concepts	3
	Cultural Elective	3
	Concentration II	15
	Free Electives	6
INT 411	Ideas and Influences	3
INT 412	Contemporary Globalization (part of Concentration I)	3
<b>TOTAL</b>		<b>33 cr hrs</b>

**Fourth Year**

INT 470	Advanced Interdisciplinary Studies Seminar	3
INT 477	Senior Thesis	3
	Concentration I	6
	Free Electives	11
<b>TOTAL</b>		<b>23 cr hrs</b>

### MINOR IN INTERDISCIPLINARY STUDIES

(Eighteen (18) credit hours can be taken by students who want to minor in Interdisciplinary Studies. Courses must be passed with a grade of "C" or higher.)

INT 308	Introduction to Interdisciplinary Studies	3	INT 375	Language and Society	3
INT 322	Approaches to Critical Analysis	3	INT 411	Ideas and Their Influences	3
INT 360	Foundations of Research in INT	3	INT 412	Contemporary Globalization	3
TOTAL					18 cr hrs

### E-LEARNING

The Department of Interdisciplinary Studies offers on-line courses in all the CORE courses.

#### Student Requirements

1. Students should enroll at Norfolk State University (NSU), or any other college that is a member of the Tidewater consortium, and register for an NSU course.
2. Students must have access to a computer (at home, work, school, etc.), Internet connection, and a web browser (Netscape Communicator 4.7 or higher or Microsoft Explorer 5.5 or higher). For further information on the minimum computer requirements go to e-Learning at the NSU website, click on Student Support, then click on "What are the minimum system requirements?"
3. Upon enrollment, students receive a Norfolk State E-mail account. Students must access their Norfolk State e-mail accounts by doing the following:
  - a. Go to the NSU web-site ([www.nsu.edu](http://www.nsu.edu)). Click on E-Learning; then click on Student Support; click on e-mail login information.
  - b. Students registered for online classes should use their Blackboard (Bb) login and access Blackboard. Once in blackboard, the students should transmit e-mail to the class instructor to ensure that they can access the class and that their e-mail is functioning properly.
4. E-Learning courses require students to possess basic computer skills. Students should be comfortable using a computer to word process documents, surf the Internet via web browser, send and receive e-mail, and send and receive attachments.

For the most up-to-date information on e-learning courses, instructor e-mail addresses, and qualities that contribute to a successful learning experience, contact the Department of Instructional Technology or the instructor in the Department of Interdisciplinary Studies.

**NOTE: The Department of Interdisciplinary Studies also offers a complete BS degree in Interdisciplinary Studies online. Please learn more about this by going to the NSU website and clicking on e-Learning.**

#### ELEMENTARY EDUCATION ENDORSEMENT PK-6 (ENGLISH OR HISTORY) CURRICULUM

BS Degree in Interdisciplinary Studies  
(Please see section on School of Education.)

#### SPECIAL EDUCATION CURRICULUM

BS Degree in Interdisciplinary Studies  
(Please see section on School of Education.)

**BS DEGREE IN INTERDISCIPLINARY STUDIES - RECLAMATION PROGRAM AT VIRGINIA BEACH HIGHER  
EDUCATION CENTER**  
(Please see NSU Website.)

**BS DEGREE IN INTERDISCIPLINARY STUDIES – NORFOLK NAVAL BASE**  
(Please see NSU Website.)

**DEPARTMENT OF MASS COMMUNICATIONS AND JOURNALISM****Wanda Goins Brockington, Department Head****(757) 823-8331**

The mission of the Department of Mass Communications and Journalism is to advance the academic, professional, and personal development of undergraduate and graduate students, alumni, and media practitioners through select programs of teaching, research, and public service that combine strong liberal arts and science studies with professional preparation for the media. The goal of the Department is to produce graduates who meet high standards of performance in gathering, selecting, interpreting, and disseminating information that may determine the agenda of public discussion.

The Department offers two undergraduate degree programs leading to the Bachelor of Arts in Journalism and the Bachelor of Science in Mass Communications and a graduate degree program leading to the Master of Arts in Media and Communications.

The curriculum is designed to meet the prescribed requirements of the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC), the State Council of Higher Education in Virginia (SCHEV), the Southern Association of Schools and Colleges (SACS), as well as the general education requirements of Norfolk State University.

ACEJMC standards require students to complete at least 80 hours outside their major, including 65 in liberal arts and sciences.

**CURRICULUM REGULATIONS**

Mass Communications and Journalism students must earn "C" or better in all departmental courses and in ENG 101, ENG 102 and SCM 285.

**TRANSFER CREDIT POLICY**

The Department will accept no more than 12 hours credit in the major taken at another institution. It will accept credits for all courses outside the major approved by the Office of Admissions and the Registrar's Office.

### GENERAL BROADCAST CURRICULUM B.S. IN MASS COMMUNICATIONS

**First Year**

UNI 101	Introduction to University Life	0
CSC 150	Computer Concepts and Application	3
ENG 101	Communication Skills I or ENG 101H	3
ENG 102	Communication Skills II or ENG 102H	3
HED 100	Personal & Community Health	2
HIS 102	U.S. History to 1865 or HIS 103 or HIS 100 or HIS 101	3
MCM 211	Society & Mass Communications	3
MCM 250	TV Production	3
MTH 103	Contemporary Mathematics	3
PED 100	Fundamentals of Fitness for Life or PED 13X or PED 20X or PED 21X	1
SOC 101	Introduction to Social Sciences or SOC 110	3
POS 100	American National Government	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**Second Year**

BIO 100	Biological Science	3
CHM 100	Chemistry or PHY 100	3
BIO 100L	Biological Science Lab or CHM 100L or PHY 100L	1
CSC 200	Advanced Computer Concepts	3
ENG 203	Advanced Communication Skills or ENG 286 or ENG 303	3
ENG 207	Introduction to World Literature or ENG 207H	3
FIA 201	Basic Art Appreciation or MUS 301	3
HUM 210	Humanities or HUM 211	3
MCM 261	Introduction to Media Writing	3
PSY 210	Introduction to Psychology	3
SCM 285	Principles of Speech or SCM 285H	3
	Elective Outside the Major	3
<b>TOTAL</b>		<b>34 cr hrs</b>

**Third Year**

ECN 211	Principles of Economics or ECN 212	3
ENG 114	Techniques of Vocabulary Building	2
HIS 335	African-American History or HIS 336 or HIS 370 or HIS 371 or ENG 383 or FIA 170 or JRN 299 or MUS 234 or POS 315 or PSY 340 or JRN 299	3
LOG 210	Logic: Critical Thinking	3
JRN 290	Digital Photography or MCM 280 or MCM 330 or MCM 391	3
MCM 310	History of Mass Communications or MCM 363 or MCM 476	3
MCM 350	TV Directing or MCM 315 or MCM 390	3
	Elective Within the Major	3
	Electives Outside the Major	6
<b>TOTAL</b>		<b>29 cr hrs</b>

**Fourth Year**

	Elective Within the Major	3
	Electives Outside the Major	6
GEO 130	Principles of Geography	3
MCM 351	Intro to Broadcast and Film Criticism or MCM 450 or MCM 485	3
MCM 440	Law & Mass Communications	3
MCM 445	Ethics in Media or MCM 464 or MCM 470	3
MCM 460	Contemporary Issues & Special Problems in Mass Mass Communications or MCM 362 or MCM 489	3
MCM 491	Internet/Web Page Design	3
<b>TOTAL</b>		<b>27 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education	40
Courses in the Major	39
Required Liberal Arts & Sciences	26
Electives Outside the Major	15
<b>TOTAL</b>	<b>120 cr hrs</b>

### MINOR IN MASS COMMUNICATIONS

The following 15 hours are required for a minor in Mass Communications (General Broadcast):

**Core: 9 Hours**

MCM 250	TV Production	3
MCM 261	Introduction to Media Writing	3
MCM 3XX	MCM 330: Elec. Field Prod. & Editing or MCM 362: Broadcast News Writing & Reporting	3

**6 More Hours**

MCM 3XX	MCM 350: TV Directing or MCM 391: Radio & TV Announcing	3
MCM 4XX	MCM 464: Advanced TV Production or MCM 470: Broadcast/Cable Programming or MCM 476: Broadcast/Cable Sales or MCM 489: Media Management or MCM 491: Internet/Web page Design	3



## JOURNALISM CURRICULUM B.A. IN JOURNALISM

**First Year**

UNI 101	Introduction to University Life	0
ENG 101	Communication Skills I or ENG 101H	3
ENG 102	Communication Skills II or ENG 102H	3
MCM 211	Society & Mass Communications	3
PED 100	Fundamentals of Fitness or PED 13X or PED 20X or PED 21X	1
SOC 101	Intro to Social Sciences or SOC 110	3
CSC 150	Computer Concepts and Applications	3
POS 100	American National Government	3
HED 100	Personal & Community Health	2
HIS 102	U.S. History to 1865 or HIS 103 or HIS 100 or HIS 101	3
JRN 2 20	Basic Writing	3
MTH 103	Contemporary Mathematics	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**Second Year**

BIO 100	Biological Science	3
CHM 100	Chemistry or PHY 100	3
BIO 100L	Biological Science Lab or CHM 100L or PHY 100L	1
JRN 210	Advertising Principles or JRN 221 or JRN 240	3
ENG 203	Advanced Communication Skills or ENG 286 or ENG 303	3
JRN 290	Digital Photography or MCM 250 or FIA 365 ...	3
CSC 200	Advanced Computer Concepts	3
PSY 210	Introduction to Psychology	3
FIA 201	Basic Art Appreciation or MUS 301	3
ENG 207	Literature of the Western World	3
SCM 285	Principles of Speech or SCM 285H	3
HUM 210	Humanities or HUM 211	3
<b>TOTAL</b>		<b>34 cr hrs</b>

**Third Year**

ECN 211	Principles of Economics or ECN 212	3
ENG 114	Techniques of Vocabulary Building	2
HIS 335	African-American History to 1865 or HIS 336 or HIS 370 or HIS 371 or ENG 383 or FIA 170 or MUS 234 or POS 315 or PSY 340 or JRN 299	3
JRN 330	Copy Editing	3
JRN 341	PR Practice or JRN 313 or JRN 323	3
LOG 210	Logic: Critical Thinking	3
	Elective within the Major	3
	Electives outside the Major	9
<b>TOTAL</b>		<b>29 cr hrs</b>

**Fourth Year**

MCM 440	Law & Mass Communications or MCM 445	3
JRN 332	Graphics of Communication or JRN 342	3
GEO 130	Principles of Geography	3
MCM 310	History of Mass Communication or MCM 460	3
MCM 450	Mass Communication Theory & Research	3
MCM 491	Internet/Web Page Design	3
	Elective within the Major	3
	Electives outside the Major	6
<b>TOTAL</b>		<b>27 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements	40
Courses in the Major	39
Required Liberal Arts & Sciences	26
Electives Outside the Major	15
<b>TOTAL</b>	<b>120 cr hrs</b>

## MINOR IN JOURNALISM

The following 15 hours are required for a minor in Journalism with a B.A.:

**Core: 9 Hours**

JRN 220	Basic Writing	3
JRN 2XX	JRN 210: Advertising Principles or JRN 221: News Writing or JRN 240: Public Relations Principles	3
JRN 3XX	JRN 313: Advertising/Public Campaigns or JRN 330: Copy Editing or JRN 341: Public Relations Practice	3

**6 More Hours**

JRN 3XX	JRN 332: Graphics of Communication or JRN 342: Promotional Writing	3
MCM 4XX	MCM 491: Internet/Web page Design	3

## DEPARTMENT OF MILITARY SCIENCE (ARMY ROTC)

**Lt. Col. Weldon B. Harris, Department Head**  
**(757) 823-8291**

The Army ROTC Program consists of two programs of instruction. The four-year program is divided into two phases: a two-year Basic phase and a two-year Advanced phase. The Basic phase of the program (MSL 101, 102, 201, 202) is normally pursued by the cadet during his or her freshman and sophomore years of college. Instruction in each phase includes basic military subjects and instruction in leadership and management. The Advanced phase includes on-campus study, off-campus field training exercises, and a 35-day Leadership Development Assessment Course (LDAC) designed to evaluate a cadet's leadership ability and mastery of military skills. LDAC usually occurs between the cadet's junior and senior years and is conducted at Fort Lewis, WA. Nurse cadets also attend a four-week hospital clinic phase at an Army hospital.

The two-year advanced ROTC Program is also extended to students who do not participate in ROTC during their freshman and sophomore years. For students entering this program, a 28-day Leader's Training Course (LTC) after the sophomore year takes the place of the Basic course traditionally required in the four-year program. Students successfully completing LTC are eligible for enrollment in the regular Advanced course for their junior and senior years.

In order to be enrolled formally in Army ROTC, a student must:

1. Be a citizen of the United States.
2. Be physically qualified under standards prescribed by the Department of the Army.
3. Be accepted by the University as a full-time enrolled student.
4. Be over 17 years of age, but must not have reached the 30th birthday upon graduation/commissioning (27th birthday for scholarship students).

**NSU COURSE  
SUBSTITUTIONS**

HED 100  
HIS 100,101,102,103  
PED 100

**AROTC COURSE**

MSL 101 or MSL 102  
HIS 380  
MSL 201 or MSL 202

**PARTICIPATION REQUIREMENTS**

Students enrolling in the Basic course during their freshman and sophomore years of college incur no military obligation unless they are ROTC scholarship recipients.

All students attending NSU, either enrolled or not enrolled in ROTC, are eligible to compete for two-year or three-year ROTC scholarships. Under this program, the Army pays for tuition, laboratory fees, and other required fees, except room and board. Additionally, scholarship recipients receive \$250-\$400 per month for each month of the school year, not to exceed 10 months per year, for the duration of the scholarship. To be eligible, the student must:

1. Be a United States citizen.
2. Be at least 17 years of age by June 30 of the year in which application is made.
3. Be able to complete college with a baccalaureate degree and be under 27 years of age by June 30 of the year eligible for appointment.
4. Pass regular Army physical examination and be medically qualified.
5. Pursue any academic discipline leading to a baccalaureate degree.

Advanced ROTC students are entitled to subsistence pay at the rate of \$150-\$400 per month for each month of the school year, not to exceed 10 months per year. While attending Advanced Summer Camp, the student receives one half of the basic pay of a Second Lieutenant (approximately \$1,050). Thus, during the two years that a student is enrolled in the Advanced course, he or she will receive approximately \$3,600 in pay and allowances. This includes subsistence pay and summer camp pay.

**DEPARTMENT OF MUSIC**

**Ernest Brown, Department Head**  
**(757) 823-8025**

The Music Department offers two undergraduate degrees and one graduate degree. The Bachelor of Music in Music Education is designed to prepare teachers of music in the elementary and secondary schools. The program includes theoretical and applied music studies, general studies, music history, literature, methodology and practicum with concentration in Voice, Keyboard and Band/Orchestra instruments.

The program leading to a Bachelor of Music with emphasis in Media is designed to expand the career preparation of students by providing knowledge, skills, and practical experience central to the needs of the music industry as represented by the broadcast and recording media. The program includes course sequences in both Music and Mass Communications.

Eligibility to major in music is determined by the Music faculty on the basis of musical background and experience, results of auditions and tests, and general qualifications to pursue Music as a major field. The Music Department is a member of the National Association of Schools of Music.

**BACHELOR OF MUSIC**  
**MUSIC EDUCATION CURRICULUM** (Instrumental/Keyboard/Vocal)

<b>First Year</b>			MUS 273	Voice Class (Instrumental & Keyboard)	1
ENG 101	Communication Skills I	3	SED 201	American School and Teaching Professions	3
ENG 102	Communication Skills II	3	SED 486	Education Psychology and Behavior	
MTH 103	Mathematics in General Education	3		Management	3
			<b>TOTAL</b>		<b>32 cr hrs</b>
MUS 110	Ensembles*	1	<b>Third Year</b>		
MUS 111	Ensembles*	1	MUS 346	Composition/Arranging	3
MUS 121	Applied Minor	1	BIO 100	Biological Science or PHY 100	3
MUS 122	Applied Minor	1	BIO100L	Biological Science Lab or PHY 100L	1
MUS 123	Performance Class	1	HIS 100	or HIS 101, 102, or 103	3
MUS 124	Performance Class	1	MUS 234	African American Music	3
MUS 125	Applied Major	2	MUS 310	Ensembles*	1
MUS 126	Applied Major	2	MUS 311	Ensembles*	1
MUS 131	Music Literature**	2	MUS 325	Applied Major	2
MUS 132	Music Literature**	2	MUS 326	Applied Major	2
MUS 141	Sight, Singing & Ear Training	2	MUS 331	Music History**	2
MUS 142	Sight, Singing & Ear Training	2	MUS 332	Music History**	2
MUS 145	Harmony and Keyboard	2	MUS 351	Advanced Conducting	2
MUS 146	Harmony and Keyboard	2	MUS 362	Brasswind Class (Instrumental)	1
MUS 161	String Class (Instrumental)	1		(or music elective, Vocal & Keyboard)	
Music Elective (Keyboard & Vocal)			MUS 383	Methods in Public School Music	2
PED 100	Fundamentals of Fitness for Life	1	MUS 384	Methods in Public School Music	2
<b>TOTAL</b>			SED 405	Reading in the Content Area.	3
			<b>TOTAL</b>		<b>33 cr hrs</b>
<b>Second Year</b>			<b>**4 Semesters of Music Literature/History = 6 hours of Humanities</b>		
CLM 165	Computer Literacy for Musicians	3	<b>Fourth Year</b>		
HED 100	Personal and Community Health	2	MUS 410	Ensemble*	1
MUS 151	Elementary Conducting	2	MUS 423	Performance Class	0
MUS 210	Ensembles*	1	MUS 425	Applied Major	2
MUS 211	Ensembles*	1	MUS 426	Applied Major	2
MUS 221	Applied Minor	1	SED 499	Direct Teaching	12
MUS 222	Applied Minor	1	PHY 154	Physics of Music	3
MUS 223	Performance Class	1	SCM 285	Principles of Speech	3
MUS 225	Applied Major	2	SED 420	Educational Technology	3
MUS 226	Applied Major	2	SOC 110	Introduction to Sociology	3
MUS 241	Sight, Singing, & Ear Training	2	<b>TOTAL</b>		<b>29 cr hrs</b>
MUS 242	Sight, Singing, & Ear Training	1	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
MUS 245	Harmony & Keyboard	2	General Education Requirements		42
MUS 246	Harmony & Keyboard	2	Requirements		58
MUS 260	Band Instrument Survey	1	Teacher Education Courses		27
MUS 261	Woodwind Class (Instrumental)	1	<b>TOTAL</b>		<b>127 cr hrs</b>
MUS 271	Voice Diction (Vocal and Keyboard)	1			
MUS 361	Woodwind Class (Instrumental)	1			
MUS 272	Vocal Diction (Vocal)	1			

**\*NOTE: Ensembles**

The minimum ensemble requirement for Music Education majors who play band instruments must be satisfied by (1) four semesters in the University Band, (2) three semesters of other instrumental ensembles such as jazz ensemble or combo; percussion, woodwind or brass ensemble; or University community orchestra.

\*Three semesters of Music Literature/History satisfy the Humanities core requirement.

Regular attendance at rehearsals and at all performances is required. Non-music majors may enroll with or without credit.

Though Performance Class does not count in the semester hour load, it counts as one tuition hour in the student's load. \*\*Students will not be permitted to take the Professional Education Core of courses until they have passed the Communication Skills and General Knowledge Components of the National Teacher Examination (N.T.E.).

\*\*Professional Education Core Courses: Students must pass the PRAXIS I and II tests prior to applying for admission to MUS-383 and MUS-384 – Methods in Public School Music. SED-233, while not required, may be taken before taking the PRAXIS Exam.

SED-499 Directed Teaching (Secondary Level/Elementary level)

**BACHELOR OF MUSIC DEGREE WITH EMPHASIS IN MEDIA CURRICULUM**

<b>First Year</b>			<b>Third Year</b>		
ENG 101	Communication Skills I	3	HIS 100	History of Western Civilization	3
ENG 102	Communication Skills II	3	MCM 250	Television Production or Music 365	3
HED 100	Personal and Community Health	2	MCM 350	Television Directing or	
MTH 103	Contemporary Mathematics	3	MUS 366	Music Video	3
MUS 110	Ensembles*	1	MUS 234	African American Music	3
MUS 111	Ensembles*	1	MUS 310	Ensembles*	1
MUS 112	Performance Workshop	1	MUS 311	Ensembles*	1
MUS 113	Performance Workshop	1	MUS 312	Performance Workshop	1
MUS 121	Applied Minor	1	MUS 313	Performance Workshop	1
MUS 122	Applied Minor	1	MUS 325	Applied Major	2
MUS 125	Applied Major	2	MUS 326	MUS 327	2
MUS 126	Applied Major	2	MUS 331	Music History	2
MUS 131	Music Literature**	2	MUS 332	Music History	2
MUS 132	Music Literature**	2	MUS 335	Jazz Literature and Criticism	3
MUS 141	Sight, Singing & Ear Training	2	MUS 346	or MUS 247 Composition	3
MUS 142	Sight, Singing & Ear Training	2	PHY 154	Physics of Music	3
MUS 145	Harmony & Keyboard	2	SCM 285	Principles of Speech	3
MUS 146	Harmony & Keyboard	2	<b>TOTAL</b>		<b>36 cr hrs</b>
MUS 151	Elementary Conducting	2			
<b>TOTAL</b>		<b>35 cr hrs</b>	** 8 Semesters of Music Literature/History satisfy the Humanities core requirements.		
<b>Second Year</b>			<b>Fourth Year</b>		
BIO 100	Biological Science	3	MCM 261	Introduction to Media Writing	3
BIO 100L	Biological Science Lab	1	MUS 265	Pract. App. or Mus 365 Rec. Elect Mus.	3
CLM 165	Computer Literacy	3	MCM 440	Law and Mass Communications	
MCM 211	Society and Mass Communications	3		or MUS 440	3
MUS 143	Progressive Harmony	3	MCM 351	Introduction to Broadcast & Film	
MUS 210	Ensembles*	1		Criticism	3
MUS 211	Ensembles*	1	MCM 489	Media Management	3
MUS 212	Performance Workshop	1	JRN Internship		3
MUS 213	Performance Workshop	1	MUS 410	Ensembles*	1
MUS 221	Applied Minor	1	MUS 412	Performance Workshop	1
MUS 222	Applied Minor	1	MUS 425	Applied Major	2
MUS 225	Applied Major	2	MUS 426	Applied Major	2
MUS 226	Applied Major	2	MUS 448	Arranging	3
PED 100	Fundamentals of Fitness for Life	1	JRN 495	or MCM 496 Internship	3
<b>TOTAL</b>		<b>24 cr hrs</b>	<b>TOTAL</b>		<b>30 cr hrs</b>

Three hours of the major requirements (MUS 131, MUS 132) also serve as Humanities in General Education requirements. Three hours of major requirements (MCM 211) also serve as a Social Science in the General Education requirements.

**\*NOTE: ENSEMBLES**

The minimum ensemble requirements for instrumental students whose major is Bachelor of Music: Emphasis in Media must be met by five consecutive semesters in the University Jazz Ensemble and two semesters of either Symphonic/Concert Band, University Community Orchestra, or small instrumental ensembles. If a student enters this curriculum below the level of proficiency required to enroll in the University Jazz Ensemble, he or she can use no more than two ensemble credits in the Jazz Laboratory Band toward fulfilling ensemble requirements.

The minimum ensemble requirements for vocal students whose major is Bachelor of Music: Emphasis in Media must be met by four consecutive semesters of University Choir or small vocal ensemble and three semesters (during the junior and senior years) of Jazz Ensemble.

Though Performance Workshop does not count in the semester hour load during the first two semesters, it counts as one tuition hour in the student's load.

**Rudolph Wilson, Department Head**  
**(757) 823-8999**

The basic objectives of the degree program are as follows:

1. To provide basic training for students planning careers in law, public management, research, teaching, foreign affairs and urban planning.
2. To prepare students to be able to examine critically, evaluate and analyze contemporary issues in politics.
3. To provide a proper frame of reference for non-majors who wish to supplement and broaden their educational experience in Political Science.

General Education Requirements	40
Major Requirements	62
Electives	18
<b>TOTAL</b>	<b>120 cr hrs</b>

\*Students interested in careers that require a specific proficiency (such as mastery of a foreign language) are encouraged to take electives consistent with those careers.

\*POS 451: Public Personnel Administration is a prerequisite for POS 493.

Please contact the Public Administration Internship Coordinator for additional requirements.

\*POS 493 --Public Administration Internship – This course provides field experience in a public or non-profit agency.

\*POS 494 - Pre-law Internship – Please contact the Pre-law Internship Coordinator for additional requirements, this course provides field experience in a public agency, such as a public defender's office or legislative body, as well as private law firms.

## DEPARTMENT OF PSYCHOLOGY

**Darlene Colson, Department Head**

**(757) 823-8573**

The Department of Psychology offers the Bachelor of Arts Degree with concentrations in General Psychology, Teacher Certification in Early Childhood Education, and Teacher Certification in Special Education. It plays a significant role in the overall mission of the University by contributing to the development of human resources through instruction in the behavioral sciences. Graduates from the three undergraduate programs offered by this department will be prepared to assume important roles in the community as para professionals, teachers and behavioral science researchers. All programs are designed to prepare students for rigorous graduate training in psychology. The major aims of the Department are as follows:

1. To provide a flexible, relevant, and fundamentally sound curriculum for students majoring in psychology.
2. To prepare students thoroughly to render services initially as paraprofessionals, teachers and behavioral scientists; and eventually as professional psychologists.
3. To provide a thorough behavioral science background for students whose expertise can be utilized in related human service fields of employment.

### GENERAL PSYCHOLOGY CURRICULUM

First Year			Third Year		
SOC 101	Introduction to Social Science	3	HUM 210	Humanities or MUS 301	3
CSC 150	Computer Concepts & Applications	3	PSY Electives		9
ENG 101	Communication Skills I	3	Free Electives		6
HED 100	Personal and Community Health	2	PSY 360	Experimental Psychology and Lab 306L	4
PED 100	Fundamentals of Fitness for Life	1	Cross Disciplinary Electives		6
PSY 210	Introduction to Psychology	3	Social Science Elective		3
UNI 101	Introduction to University Life	0	<b>TOTAL</b>		<b>31 cr hrs</b>
ENG 102	Communication Skills II	3			
MTH 103	Contemporary Mathematics	3	Fourth Year		
PSY 211	Basic Principles of Psychology	3	PSY Electives		6
LOG 210	Logic: Critical Thinking	3	Cross Disciplinary Electives		6
<b>TOTAL</b>		<b>27 cr hrs</b>	HIS 335/336 or HIS 370/371	African-American	
				or African History	3
			PSY 492	Psychology Seminar	3
			Free Electives		13
			<b>TOTAL</b>		<b>31 cr hrs</b>
Second Year			<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
PSY 280	Abnormal Psychology	3	General Graduation Requirements		40
PSY Electives		6	Major Requirements		28
BIO 100	Biological Science, CHM or PHY SCI 100	6	PSY Electives		21
BIO 100L	Biological Science Lab or CHM Lab	1	Cross Disciplinary Electives		12
ECN 211	Principles of Economics	3	Free Electives		19
ENG 207	Literature of the Western World	3	Exit Writing Competency Exam		0
PSY 270	Statistics in Psychology	3			
SCM 285	Principles of Speech	3			
CSC 200	Advanced Computer Concepts	3			
<b>TOTAL</b>		<b>31 cr hrs</b>	<b>TOTAL</b>		<b>120 cr hrs</b>

### MINOR IN PSYCHOLOGY

PSY 210	Introduction to Psychology	3	PSY 3xx/4xx	300- or 400-Level	
PSY 211	Basic Principles of Psychology	3		Psychology Course	6
PSY 280	Abnormal Psychology	3	PSY 4xx	400 Level Psychology Course	3
			<b>TOTAL</b>		<b>18 cr hrs</b>

**Students must earn a minimum grade of C in all major courses.**

### EARLY CHILDHOOD EDUCATION CURRICULUM (Bachelor of Arts in Psychology)

**First Year**

UNI 101	Introduction to University Life	0
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
CHM 100	Chemistry of PHY 100	3
CHM 100L	Chemistry Lab or PHY Lab	1
CSC 150	Computer Concepts and Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MTH 103	Contemporary Math	3
MTH 105	Elementary Algebra	3
PED 100	Fundamentals of Fitness for Life	1
HIS 103	American History	3
PSY 210	Introduction to Psychology	3
<b>TOTAL</b>		<b>32 cr hrs</b>

**Second Year**

PSY 211	Basic Principles of Psychology	3
EED 201	American Schools and Teaching	3
ENG 207	Literature of the Western World	3
EED 274	The Study of Young Children	3
PSY 270	Statistics in Psychology	3
SOC 101	Introduction to Social Science	3
ENG 203	Advanced Communication Skills	3
SCM 285	Principles of Speech	3
SCI 381	Science for Elementary Teachers	3
SCI 381L	Science for Elementary Teachers Lab	1
HUM 210	Humanities	3
<b>TOTAL</b>		<b>31 cr hrs</b>

**Third Year**

EED 360	Curriculum & Instruction for Primary Grades	3
PSY	Electives	9
MTH 141	Math for Elementary Teachers I	3
MTH 142	Math for Elementary Teachers II	3
PSY 360	Experimental Psychology	3
PSY 360L	Experimental Psychology Lab	1
ECE 461	Curr/Instr in Early Primary	3
EED 450	Teaching Literacy in the Elementary Schools	3
EED 465	Methods/Materials for Teaching Science, Math, and Technology	3
<b>TOTAL</b>		<b>31 cr hrs</b>

**Fourth Year**

PSY	Electives	3
PSY 492	Psychology Seminar	3
INT 350	Trends and Issues of Diverse Populations	3
EED 470	Methods of Teaching Social Studies in the Elementary School	3
EED 490	Diagnostic Reading	3
EED 499	Directed Teaching	12
<b>TOTAL</b>		<b>27 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements	41
Psychology	28
Secondary Concentration-Elementary Education	24
Support Concentration II-Student Teaching	12
Supporting Courses	16
<b>TOTAL</b>	<b>121 cr hrs</b>

### SPECIAL EDUCATION: EMOTIONAL DISTURBANCE/LEARNING DISABILITIES CURRICULUM

**First Year**

UNI 101	Introduction to University Life	0
BIO 100	Biological Science	3
BIO 100L	Biology Science Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal & Community Health	2
HIS 102	U.S. History or HIS 103	3
MTH 103	Contemporary Math	3
PED 100	Fundamentals of Fitness for Life	1
PHY 100	Physical Science	3
SOC 101	Introduction to Social Sciences	3
FIA 201	Art Appreciation or MUS 301 Music App	3
<b>TOTAL</b>		<b>28 cr hrs</b>

**Second Year**

CSC 150	Computer Literacy	3
PSY 210	Introduction to Psychology	3
PSY 211	Basic Principles of Psychology	3
PSY 228	Developmental Psychology	3
PSY 230	Educational Psychology	3
PSY 280	Abnormal Psychology	3
SCM 285	Principles of Speech	3
SPE 210	American Schools & the Teaching Profession	3
PSY 270	Statistics in Psychology	3
PED 365	Adapted Physical Education	3
	Elective	1
<b>TOTAL</b>		<b>31 cr hrs</b>

**Third Year**

HIS 370	African History and Culture	3
PSY 322	Psychology of Exceptional Children	3
PSY 360	Experimental Psychology	3

PSY 360L	Experimental Psychology Lab	1
PSY 381	Topics in Psychology	3
SPE 321	Characteristics and Medical Aspects of Disabilities	3
SPE 334	Understanding and Teaching Learners with Emotional Disturbance	3
SPE 344	Teaching Reading to Exceptional Learners	3
SPE 440	Collaboration, Inclusion, Transition and Other Curricular Adjustments	3
SPP 312	Speech & Language Development	3
	Psychology Elective	3
<b>TOTAL</b>		<b>31 cr hrs</b>

**Fourth Year**

PSY 390	Fundamentals of Learning	3
PSY 397	Research in Psychology	3
PSY 492	Psychology Seminar	3
SPE 312	Educational Psychology & Behavioral Management	3
SPE 336	Understanding and Teaching Students with Learning Disabilities	3
SPE 490	Assessment of Exceptional Children	3
SPE 499A	Directed Student Teaching – Emotional Disturbance	6
SPE 499B	Directed Student Teaching- Learning Disabilities	6
<b>TOTAL</b>		<b>30 cr hrs</b>

\*Enrollment requires completion of requirements for admission to teacher education.

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements	43
Major Requirements	77
<b>TOTAL</b>	<b>120 cr hrs</b>

### SPECIAL EDUCATION: LEARNING DISABILITIES/MENTAL RETARDATION CURRICULUM

<b>First Year</b>			PSY 270	(270) Psychological Statistics	3
CSC 192	Introduction to the Internet	1	PSY 322	Psychology of Exceptional Children	3
BIO 100	Biological Science	3	PSY 360	Experimental Psychology	3
BIO 100L	Biology Lab	1	PSY 360L	Experimental Psychology Lab	1
ENG 101	Communication Skills I	3	PSY 381	Topics in Psychology	2
ENG 102	Communication Skills II	3	PSY 390	Fundamentals of Learning	3
PSY 210	Introduction to Psychology	3	SPE 310	Char./Strat. for Teaching the Mentally Disabled	3
PSY 211	Basic Principles of Psychology	3	SPE 311	Principles/Practices of Multicultural Education	1
HED 100	Personal & Community Health	2	SPE 342	Char. Strat. for Teaching the Learning Disabled	3
HIS 102	U.S. History	3	SPE 371	Medical Aspects of Disabling Conditions	2
MTH 103	Contemporary Mathematics	3	SPP 312	Speech & Language Development	3
PED 100	Fundamentals of Fitness for Life	1			
PHY 100	Physical Science	3			
SOC 101	Introduction to Social Sciences	3			
<b>TOTAL</b>		<b>32 cr hrs</b>	<b>TOTAL</b>		<b>33 cr hrs</b>
<b>Second Year</b>			<b>Fourth Year</b>		
CSC 150	Computer Concepts and Applications	3	PSY 492	Psychology Seminar	3
HIS 370	African History and Culture	3	CSC 200	Advanced Computer Concepts	3
FIA 301	Appreciation	3	SPE 440	Curricula Adjustment for Exceptional Children	2
MUS 301	Music Appreciation	3	SPE 486	Educational & Behavioral Management	3
PSY 228	Developmental Psychology	3	SPE 490	Assessment of Exceptional Students	2
PSY 230	Educational Psychology	3	SPE 496	Student Teaching Learning Disabled	6
PSY 280	Abnormal Psychology	3	SPE 499	Student Teaching Mentally Retarded	6
SCM 285	Principles of Speech	3	SPE 499D	Directed Observation	0
SPE 201	American Schools & the Teaching Profession	3	SPE 499P	Directed Observation	0
SPE 233	Seminar in Assessment & Evaluation or SED 233	3	<b>TOTAL</b>		<b>25 cr hrs</b>
<b>TOTAL</b>		<b>30 cr hrs</b>	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
<b>Third Year</b>			General Education Requirements		
HIS 370	African History & Culture	3	Psychology Requirements		
PED 365	Adapted Physical Education	3	Secondary Major Requirements		
			<b>TOTAL</b>		<b>120 cr hrs</b>

### DEPARTMENT OF SOCIOLOGY

**Judi Caron-Sheppard, Department Head**  
**(757) 823-8436**

The Sociology Department focuses on providing understanding of social issues such as crime, poverty, injustice, urban and family problems based on scientific principles of society. The Department is committed to student excellence, preparing students to address these issues in society by working closely with them to encourage and develop their skills. Through research and scholarly activities, faculty contribute to the further understanding of human behavior and involve students in these activities. Simultaneously, the Department seeks to serve as an interface between the theoretically-oriented university and the pragmatically-oriented community and to be involved in community service. As a channel of scientific knowledge, the Sociology Department is prepared to introduce innovative programs to meet the needs of a dynamic, diverse society. The Department offers a Bachelor of Arts degree in Sociology and Masters of Arts degrees in Criminal Justice, Urban Affairs and Sociology\*.

\*Joint Degree Program with Old Dominion University

### SOCIOLOGY CURRICULUM

<b>First Year</b>			<b>Second Year</b>		
BIO100	or BIO 105 or BIO 110 or CHM 100 or PHY 100, Physical Science	3	BIO100	or BIO 105 or BIO 110 or CHM 100 or PHY 100, Physical Science	3
BIO 100L	or CHM 100L or PHY 100L	1	HUM 210	or HUM 211 or ENG 207 or MUS 301 or FIA 301 or Foreign Language	6
HED 100	Personal and Community Health	2	LOG 210	Logic: Critical Thinking	3
PED 100	Fundamentals of Fitness for Life	1	PSY 210	Introduction to Psychology, POS 100 or ECN 211	3
HIS 100	or HIS 101 or HIS 102 or HIS 103	3	SCM 285	Principles of Speech	3
ENG 101	Communication Skills	3	SOC 137	or CJS 200	3
ENG 102	Communication Skills	3	SOC 225	Social Science Research Skills	3
UNI 101	Introduction to University Life	0	SOC 234	or SOC 228	3
MTH 103	or MTH 105	3	CSC 200	Advanced Computer Concepts	3
SOC 101	Introduction to the Social Sciences	3	<b>TOTAL</b>		<b>30 cr hrs</b>
SOC 110	Introduction to Sociology	3			
CSC 150	Computer Concepts and Applications	3			
<b>TOTAL</b>		<b>28 cr hrs</b>			



<b>Third Year</b>			SOC 393	Internship or Approved Electives	6
ENG 383	or HIS 335 or HIS 336 or HIS 370 or HIS 371 or HIS 377 or PSY 240 or POS 315 or SOC 237	3	SOC 394	Internship Seminar	0
SOC 338	or SOC 331	3	Approved Elective		3
SOC 344	Methods of Social Research	3	SOC 462	Complex Organizations	3
SOC 355	Elementary Social Statistics	3	SOC 499	Applied Sociology	3
SOC 3XX	Sociology or CJS Elective	9	Free Electives		14
Free Electives		9	<b>TOTAL</b>		<b>32 cr hrs</b>
<b>TOTAL</b>		<b>30 cr hrs</b>	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
<b>Fourth Year</b>			General Education Requirements		40
SOC 446	Sociological Theory	3	Major Requirements		45
			Other Requirements		12
			Free Electives		23
			<b>TOTAL</b>		<b>120 cr hrs</b>

### Career Areas in Sociology

Students may follow the general curriculum (above) or specialize in courses relevant to **career areas** to increase their preparedness for specific career goals using the following guidelines and working closely with an advisor.

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#### **CRIME and CRIMINAL JUSTICE**

**POS 100** - American National Government or PSY 100 - Introduction to Psychology

**CJC 200** - Introduction to Criminal Justice (*instead of SOC 137- Social Problems*)

**CJS Electives:** Choose 3: CJS 220 - Juvenile Delinquency, 225 - Law Enforcement, 230 - Introduction to Corrections, 310 - Criminology, 313 - American Court System, 315 - Sociology and Drug Usage, 492 - Special Topics in Criminal Justice

**Approved/ Free Electives:** Choose 3: POS 332 - Jurisprudence, SOC 458 - Social Inequality, SOC 237 - Racial Ethnic Minorities, CJSXXX

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#### **FAMILY and SOCIAL RELATIONS**

**PSY 210** - Introduction to Psychology (*instead of POS 100 - American National Government*)

**SOC 137** - Social Problems (*instead of CJS 200 - Introduction to Criminal Justice*)

**SOC XXX:** Choose 3: SOC 338 - The Family or SOC 331 - Social Psychology, SOC 205 - Human Sexuality, CJS 220 - Juvenile Delinquency, CJS 315 - Sociology and Drug Usage, SOC 458 - Social Inequality

**Approved Elective:** Choose 1: PSY 220 - Child Psychology, 225 - Adolescent Psychology, Soc 228 - Developmental Psychology, SWK Techniques of Counseling

**Free Electives:** Choose 2: Any Approved Elective above, SWK 357 - Interviewing Techniques, SOC 458 - Social Inequality, SOC 237 - Racial, Ethnic Minorities,

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#### **SOCIAL INEQUALITY and SOCIAL JUSTICE**

**POS 100** - American National Government or ECN 210 - Economics (*instead of PSY 210 - Introduction to Psychology*)

**SOC 137** - Social Problems (*instead of CJS 200 - Introduction to Criminal Justice*)

**SOC XXX:** SOC 237 - Racial Ethnic Minorities, SOC 458 - Social Inequality; Choose 1 from: SOC 228 - Demography or SOC 234 - Urban Sociology or SOC 325 - Society, Business and Internationalism

**Approved Elective/ Free Elective,** Choose 3: CJS310 - Criminology or CJS 230 - Introduction to Corrections or CJS 200 - Introduction to Criminal Justice, POS (Housing), POS 315 - Blacks in the American Political Process, GEO 100 - Geography, INT 400 - Globalism

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#### **POPULATION STUDIES and INTERNATIONAL DEVELOPMENT**

**POS 100** - American National Government or ECN 211 (*instead of PSY 210 - Introduction to Psychology*)

**SOC 137** - Social Problems (*instead of CJS 200 - Introduction to Criminal Justice*)

**SOC 228** - Demography (*instead of Soc 234 - Urban Sociology*)

**SOCXXX:** SOC 301 - Demographic Methods or SOC 302 - Migration, or Soc 303 - Fertility, SOC 304 - Mortality, SOC 401 - Demographic Methods II, SOC 402 - Family Demography, SOC 403 - Population Growth Food and the Environment, SOC 404 - Population and Economic Development, SOC 234 - Urban Sociology, SOC 325 - Society, Business and Internationalism

**Approved/Free Electives,** Choose 3: SOC 458 Social Inequality, INT 400 - Globalism, SOC 237 Racial, Cultural Minorities, GEO 100 - Geography, POS or HIS International Focus

**MINOR IN SOCIOLOGY**

Introduction			Organization (Select One Course)	3
SOC 110	Introduction to Sociology	3	SOC 446 Sociological Theory	
			SOC 458 Social Inequality	
			SOC 462 Complex Organizations	
Social Problems (Select One Course)		3		
SOC 137	Social Problems		General (Select One Course)	3
SOC 228	Demographic Principles		SOC 3XX	
SOC 234	Urban Sociology		SOC 4XX	
CJS 200	Introduction to Criminal Justice		CJS 3XX	
			CJS 4XX	
Research			<b>TOTAL</b>	<b>15 cr hrs</b>
SOC 344	Methods of Social Research	3		

**SCHOOL OF SCIENCE AND TECHNOLOGY****Sandra J. DeLoatch, Dean****Larry Mattix, Associate Dean****(757) 823-8180**

The School of Science and Technology is a dynamic school. It has been, and remains, a major force for change within the University as an innovator and initiator of most of the high demand and high technological programs on campus. It is represented by a wide array of course selections in eight (8) major areas: Computer Science, Engineering, Health Sciences, Mathematics, Natural and Applied Sciences, Nursing, Naval Science, and Technology. Through the initiative of Norfolk State University's president, the School has also embarked upon a program for excellence in science called the Dozoretz National Institute for Mathematics and Applied Sciences (DNIMAS). The Institute accepts only exceptionally prepared minority students. Entrance into the Institute is through special application. The school commits to accountability in providing excellence in instruction through departmental programs which integrate communication, mathematics, science, technology, and professional concerns, while addressing a wide spectrum of individual needs and abilities. The overall mission of the School of Science and Technology is as follows:

1. To develop humanistic and competent professionals who can serve as science and technology specialists and health-care providers.
2. To apply state-of-the-art scientific research and technological know-how to the problems and needs of the region and the nation.
3. To foster scholarship and leadership in the sciences, in technology, in engineering, and in health professions in the community.

**ACCREDITATION/APPROVALS**

The following programs, sponsored by the School of Science and Technology, have been approved by the State Council of Higher Education for Virginia (SCHEV). They have also been accredited and/or approved by appropriate national accrediting agencies.

1. Computer Science - Computer Science Accreditation Board (CSAB), 184 N. Street, Stamford, CT 06901, (203) 975-1117
2. Chemistry-American Chemical Society (ACS), 1155 Sixteenth Street, N.W., Washington, DC 20036, (202) 872-4589
3. Food Science and Nutrition - Commission on Accreditation/Approval for Dietetics Education of the American Dietetic Association, 216 W. Jackson Blvd, Chicago, IL 60606, (312) 899-0040.
4. Medical Technology - National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 W. Bryn Mawr Ave., Suite 670, Chicago, IL 60631, (773) 714-8880
5. Nursing A.S. - National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, New York 10006, (800) 669-1656 and the Virginia Board of Nursing, 6606 W. Broad Street, 4th Floor, Richmond, VA 23230, (804) 662-9909.
6. Nursing B.S. - National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, New York 10006, (800) 669-1656 and the Virginia Board of Nursing, 6606 W. Broad Street, 4th Floor, Richmond, VA 23230, (804) 662-9909.
7. Technology - National Association of Industrial Technology (NAIT), 3300 Washtenaw Avenue, Suite 220, Ann Arbor, MI 48104, (734) 677-0720

## ORGANIZATION OF THE SCHOOL

The courses offered by the School of Science and Technology are organized into departments, which sponsor a wide array of possibilities for students. The following departments are included:

Department of Allied Health	Department of Mathematics
Department of Biology	Department of Nursing
Department of Chemistry	Department of Physics
Department of Computer Science	Department of Technology
Department of Engineering	

## DEGREES OFFERED

The School of Science and Technology offers programs terminating at the associate, baccalaureate and master degree levels. Students admitted to the School of Science and Technology may choose from fields of study in programs terminating at the associate, baccalaureate and master degree levels. Undergraduate programs leading to the Bachelor of Science degree generally require a minimum of 120 semester hours of credit.

## ADMISSION REQUIREMENTS

Admission to Norfolk State University does not imply automatic admission to the following programs:

1. DNIMAS
2. Engineering
3. Medical Technology
4. Nursing

### CRITERIA FOR ADMISSION TO MEDICAL TECHNOLOGY PROFESSIONAL PHASE

1. Students must seek application through the Medical Technology Admissions Committee.
2. Students must complete all prerequisite courses by the end of the semester preceding the Clinical Phase.
3. Students must have a minimum science GPA of 2.0.
4. Students must submit three letters of recommendation from persons familiar with the students' ability.

### CRITERIA FOR ADMISSION TO NURSING: ASSOCIATE OF SCIENCE

1. Students must complete two units of high school or higher mathematics (including one unit of algebra), one unit of biology, and one unit of chemistry with a minimum average of "C" in each course.
2. Students must have a cumulative GPA of 2.5 or better in high school or college work.

### CRITERIA FOR ADMISSION TO NURSING: LPN - RN

1. Students must meet the same prerequisites as for entrance to the associate degree sequence.
2. Students must be currently licensed in the state of Virginia as an LPN.

### CRITERIA FOR ADMISSION TO NURSING: BACHELOR OF SCIENCE PROGRAM (RN-COMPLETION)

1. Students must have a minimum GPA of 2.5 in college.
2. Students must be currently licensed as registered nurses.
3. Students must have a grade of "C" or better in all previous nursing and science courses.
4. Students must have the minimum prerequisites of transfer courses:

Mathematics (Math 105)	3	Human Growth/Development	
Anatomy and Physiology	8	or Child Psychology	3
Communication English Composition	6	Microbiology	4
Computer Concepts	3	Lower Level Nursing Classes	30
General Psychology	3	Sociology	3
		<b>TOTAL</b>	<b>63</b>

**CRITERIA FOR ADMISSION TO NURSING: SECOND - DEGREE BACCALAUREATE PROGRAM**

1. Completion of undergraduate or higher degree.
2. Admission to NSU by December 1 for Summer Session, and August 1 for January Session.
3. A cumulative GPA of 2.5 in the prior degree and a "C" or 2.0 in the science courses (anatomy and physiology, microbiology and pathophysiology).

**CRITERIA FOR ADMISSION TO NURSING: LPN - BSN PROGRAM**

1. Completion of 63 semester hours in prerequisite courses.
2. Admission to NSU by December 1 for Summer Session, and August 1 for January Session.
3. A cumulative GPA of 2.5 in college courses and 2.0 in sciences (anatomy and physiology, microbiology, and pathophysiology).

**GENERAL EDUCATION REQUIREMENTS**

Students seeking degrees in any of the disciplines in the School of Science and Technology must complete the General Education requirements of the University.

**DEPARTMENT OF ALLIED HEALTH**

**Mildred K. Fuller, Department Head**  
**(757) 823-2366**

The Department of Allied Health offers majors concentrations or certificates in the disciplines of Food Science and Nutrition, Funeral Services, Health Information Management, Health Services Management, and Medical Technology. The purpose of the Department is to prepare students in the preventive, diagnostic, and therapeutic aspects of health care.

The Bachelor of Science degree is offered in Health Services Management, and Medical Technology. A Certificate of Completion is awarded in Health Services Management.

The Communication Sciences and Disorders Program, formally with the Department of English and Foreign Languages, was aligned with the Department of Allied Health in Summer 2006. Students must consult with CSD program coordinator before enrolling in the program and scheduling. **Students will still receive a B.A. degree in English.**

**OBJECTIVES OF DEPARTMENT**

1. To provide curricular offerings and clinical training which will allow students to work in areas of health-care administration, health maintenance, disease prevention, diagnosis, treatment, and rehabilitation.
2. To instill a sense of ethical responsibility as health-care workers.
3. To prepare students who will become professionals in the health-care industry.
4. To prepare students for entry-level positions in certain areas in the health-care industry.

**FUNERAL SERVICE EDUCATION PROGRAM**

Norfolk State University offers an extensive program designed to prepare students for careers in the complex field of mortuary science. Our diversified curriculum addresses the changing needs and demands of contemporary funeral directing, embalming and business management. The Norfolk State University Funeral Service Education Program is accredited by the following agency:

The American Board of Funeral Service Education (ABFSE)  
3432 Ashland Avenue, Suite U  
St. Joseph, MO 64506  
(816)233-3747  
[www.abfse.org](http://www.abfse.org)

**AIMS and PURPOSES**

The aims and purposes of the Funeral Service Certificate Program are as follows:

1. To maintain a high level of post-secondary education designed to prepare students for successful careers as funeral service professionals.
2. To provide an extensive curriculum designed to address all aspects of funeral service, thereby helping students develop a level of skill and proficiency necessary to compete in this ever-changing field.
3. To instill in students the desire and knowledge to serve the public with the highest ethical standards.
4. To encourage and provide a forum where students and industry professionals may conduct research related to funeral service.

5. To encourage students to contribute to the community in which they serve by providing outstanding service, while cognizant of all regulatory issues pertinent to the health, public safety, and "care of the deceased".
6. To promote a positive image of the profession and its practitioners.
7. To serve the funeral service community by providing continuing education and life-long learning.
8. To make students ever mindful of their responsibilities to the profession, and the clients they serve.

### GENERAL ADMISSION POLICIES

Norfolk State University fulfills its opportunities for higher education for all people, regardless of their socio-economic status, race, sex, age, religion or national origin by identifying and accepting students with academic promise. Norfolk State University seeks to admit in-state and out-of-state applicants whose education, preparation, aptitude and achievement and motivation combine to indicate a reasonable probability of success in one or more of the University's schools.

The University makes an effort to maintain a diverse student population because of the benefits that accrue to all students and to the entire educational process. Further, the University reserves the right to base individual admission in any given year upon a variety of factors, including the number of applicants for available space.

### ADMISSION PROCEDURES

- Submission of a Non-Refundable \$25 Application Fee, along with a completed application
- Official High School Transcript (GED score if applicable)
- Post Secondary Education Transcript (if applicable)
- Two Letters of Recommendation
- 250-word essay explaining why student has chosen Funeral Service as a career
- SAT or ACT scores (if under 21 years of age only)

### FUNERAL SERVICE CURRICULUM

The Funeral Service Certificate Program at Norfolk State University offers courses from several content areas: Public Health and Technical, Business Management, Social Sciences and Legal, Regulatory and Ethical areas.

Sixty-three (63) hours are required to complete the program. The areas of concentration and specific requirements are as follows:

The areas of concentration and specific requirements are as follows:

#### Public Health and Technical (17credit hours)

BIO 165 Human Anatomy and Physiology	3
FNS 340 Embalming I	4
FNS 345 Embalming II	4
FNS 350 Restorative Art I	3
FNS 355 Restorative Art II	3

#### Business Management (15 credit hours)

ACC 201 Principles of Accounting	3
FNS 330 Computer Concepts/Applications	3
FNS 360 Funeral Service Management I	3
FNS 365 Funeral Service Management II	3
FNS 370 Funeral Home Merchandising	3

#### Social Science/Humanities (8 credit hours)

FNS 381 Psychology and Counseling for Funeral Service	3
FNS 304 Funeral Service Sociology	3
FNS 301 Introduction to Funeral Service	2

#### Legal, Ethical, and Regulatory (4 credit hours)

FNS 322 Funeral Service Law	2
FNS 373 Business Law and Ethics for Funeral Service	2

#### Education

#### General Education (19 credit hours)

HIM 120 Medical Terminology	3
FNS 300L Funeral Service Review Lab	1
ENG 101 Communication Skills I	3
ENG 102 Communication Skills II	3

CHM 103	Funeral Service Chemistry	3
BIO 320	Pathophysiology	3
BIO 163	Microbiology	3

### ATTENDANCE POLICY

All students must attend class in accordance with the University policy stated in the Student Handbook. Failure to do so may result in dismissal from class or a grade of "F."

### CERTIFICATE COMPLETION

In order to meet requirements for the Certificate in Funeral Service from Norfolk State University, a student must complete the required 63 credit hours of General and Core courses, successfully passing each course with a grade no less than "C".

### Virginia Funeral Service Licensure Requirements

Currently, in order to become licensed in the Commonwealth of Virginia, the student must meet four criteria:

1. Successfully complete an accredited program of Mortuary Science.
2. Complete an 18 month or 3000 hour apprenticeship program at an approved funeral home.
3. Successfully pass the Virginia Funeral Service Examination.
4. Successfully pass the National Board Examination.

### NATIONAL BOARD SCORES

Completion of the National Board Examination (NBE) is a requirement for graduation from the Norfolk State University Funeral Service Education Program. This exam is a measure of a student's proficiency regarding the theories and technical knowledge required for the practice of funeral service.

The annual passage rate for first-time takers on the National Board Examination (NBE) for the most recent three year period for Norfolk State University and all American Board of Funeral Service Education (ABFSE) accredited schools is posted on the ABFSE web site [www.abfse.org](http://www.abfse.org)

### HEALTH SERVICES MANAGEMENT

**Bernice Sawyer-Watson, Program Director**  
**(757) 823-2367**

This program in Health Services Management is organized around a core of lower level general education courses, a core of business management courses taken in the intermediate years, and further generic orientation to the unique managerial processes in the health services industry in the form of an internship and on-the-job experimental learning in the last year.

### HEALTH SERVICES MANAGEMENT CURRICULUM

<b>First Year</b>			HIS 101	Social Science Electives or	
Cultural Elective	3		HIS 102	103, or SOC 101	6
ACC 201 Elementary Accounting	3		HSM 300	Health Service Management	3
ACC 202 Elementary Accounting	3		HSM 300L	Health Service Management Lab	1
CSC 150 Computer Literacy*	3		HSM 310	Health Personnel	3
UNI 101 Introduction to University Life	0		PSY 210	Introduction to Psychology	3
BIO 100 Biological Science or any higher level or CHM 100 or PHY 100	3		SCM 285	Principles of Speech	3
ENG 101 Communication Skills I	3		<b>TOTAL</b>		<b>31 cr hrs</b>
ENG 102 Communication Skills II	3		<b>Third Year</b>		
HED 100 Personal and Community Health	2		HSM Restrictive Electives or ENT 3XX, DSC 3XX,		
HRP 190 Introduction to the Health Professions	3		HIM 3XX, MGT 3XX, MKG 3XX or		
MTH 151 College Algebra or MTH 131, 132, 153	3		FNC 3XX, ACC 3XX, MSY 3XX or ASM-330		3
PED 100 Fundamentals of Fitness for Life (any active P.E)	1		Humanities Electives**		6
<b>TOTAL</b>	<b>30 cr hrs</b>		MGT 365	Organizational Theory & Behavior	3
			FNC 360	Corporate Finance and Applications	3
			HIM 310	Current Trends in Health Delivery	3
			HSM 311	Legal Aspects and Ethics of Health-Care Delivery	3
<b>Second Year</b>			HSM 454	Long Term Care Administration	3
ECN 211 Principles of Economics	3		Labor Relations or Labor Laws and Legislation		
ECN 212 Principles of Economics	3		MGT 410, MGT 420, MGT 430, MGT 435,		
ECN 220 Economics and Business Statistics or PSY 270, SOC 355, POS 345 or DSC 270	3		MGT 440, MGT 4XX, POS 451		3
ENG 230 Advanced Communication Skills	3		<b>TOTAL</b>		<b>30 cr hrs</b>

\* CLM 165, CLS 150, CSC 169, CIT 150, EEN 141, FIA 180, or TED 170

\*\*ENG 38X, FIA 170, MUS 234, HIS 335, HIS 336, HIS 370, HIS 371, HIS 377, HRP 290, SOC 237, PSY 340, POS 315, HRP 290, MUS 301, Foreign Language, FIA 201

\*\*\*MGT 4XX, MKT 3XX, SWK 32X, HIM 3XX, HIM 4XX, MKT 4XX

#### Fourth Year

Lab Elective: Biology or Chemistry or

Physical Science

Free Elective

BIO 1XX or any higher level Biology  
or CHM XXX or PHY XXX

HIM 120 Medical Terminology

HSM 331	Health Financial Management	4
HSM 451	Comprehensive Health Planning	3
HSM 494	Health Services Management Internship	6
HSM Restrictive Elective or ENT 4XX or 3XX***		
HIM 3XX or 4XX or MGT 4XX or 3XX,		
MKG 3XX or 4XX, FNC 3XX or 4XX		3
HSM 497	Health Services Management and Research	
or HIM 420		3
<b>TOTAL</b>		<b>29 cr hrs</b>

#### SUMMARY OF GRADUATION REQUIREMENTS

1	General Education Requirements	42
3	Major Requirements	75
3	Electives	3
	<b>TOTAL</b>	<b>120 cr hrs</b>

## MEDICAL TECHNOLOGY

**Mildred K. Fuller, Program Director**  
**(757) 823-2366**

The Medical Technology Program is designed to prepare students to meet competencies required to become medical technologist/clinical laboratory scientists. The program includes instruction in the performance of laboratory tests and their interpretation and correlation in determining the absence, presence, and extent of diseases. Students completing this program will be awarded the Bachelor of Science degree in Medical Technology and are eligible to sit for a national certifying examination.

The Medical Technology Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 W. Bryn Mawr Ave., Suite 670, Chicago, IL 60631, (773) 714-8880.

### REQUIREMENTS

Upon admission to Norfolk State University, the student may declare Medical Technology as a major. The student, including

transfer students, must first complete all courses comprising the pre-professional phase of the curriculum before seeking admission to the professional phase. The student then seeks application to the professional phase of the curriculum through the Medical Technology Admissions Committee. This committee considers each applicant for admission to the clinical phase after he/she has met the following requirements:

1. Completing all prerequisite courses by the end of semester preceding the professional phase of the curriculum.
2. Achieving a minimum science grade point average of 2.0.
3. Achieving a minimum cumulative grade point average of 2.0.
4. Forwarding to the Admissions Committee a minimum of three (3) letters of recommendation from persons familiar with the student's abilities.
5. Completing the admission interview process, which includes a review of the Medical Technology Program's technical standards.

Students holding an associate degree in Clinical Laboratory Science or Medical Laboratory Technology may also seek application to the Medical Technology Program at Norfolk State University.

### ESSENTIAL FUNCTIONS FOR ADMISSION

At the time of the admissions interview, applicants are given a copy of the Medical Technology Program's technical standards.

Technical standards represent the essential non-academic requirements of the program that students must master to participate successfully in the program and become employable. The following is a list of the technical abilities and skills applicants for admission must possess:

1. Manual Dexterity: Ability to use hand(s) or terminal devices with coordination.
2. Fine Motor: Ability to manipulate small objects with fingertips or adaptive devices.
3. Mobility: Ability to maneuver in the laboratory and around instruments and in patient-care settings.
4. Vision: Ability to distinguish red, yellow, and blue colors; distinguish clear from cloudy, and see through a microscope.
5. Hearing: Ability to adapt with assistive devices (i.e., phone receivers, hearing aid, etc.)
6. Speech: Ability to communicate verbally in English.
7. Writing: Ability to communicate effectively in written English.
8. Reading: Ability to read, understand, and follow directions printed in English.

Applicants are asked to sign the compliance form below to indicate that they believe they have a reasonable chance of meeting these standards. During the interview process, the students will be asked if they have any questions concerning the program's technical standards.

I, \_\_\_\_\_ (Name) attest that I have read and understand the technical standards of the Medical Technology Program, and I believe that I can and am prepared to meet these requirements.

### MEDICAL TECHNOLOGY CURRICULUM (B.S. DEGREE)

First Year			Third Year		
UNI 101	Introduction to University Life	0	MDT 315	Clinical Hematology I	4
BIO 110	General Biology	4	MDT 325	Clinical Chemistry I	4
BIO 165	Human Anatomy and Physiology	3	MDT 373	Clinical Microbiology I	5
BIO 165L	Human Anatomy and Physiology	1	MDT 410	Immunology/Serology	4
CHM 221	General Chemistry I	3	MDT 425	Clinical Chemistry II	4
CHM 221L	General Chemistry I Lab	1	MDT 450	Clinical Hematology II	4
CHM 222	General Chemistry II	3	MDT 455	Immunohematology	4
CHM 222L	General Chemistry II Lab	1	MDT 473	Clinical Microbiology II	4
ENG 101	Communication Skills I	3	<b>TOTAL</b>		<b>33 cr hrs</b>
ENG 102	Communication Skills II	3			
HRP 190	Intro to Health Professions	3	<b>Summer Session</b>		
MTH 151	College Algebra	3	MDT 306	Phlebotomy	2
MTH 153	College Algebra & Trigonometry	3	MDT 308	Urinalysis	2
PED 100	Fundamentals of Fitness for Life or PED 1XX	1	<b>TOTAL</b>		<b>4 cr hrs</b>
<b>TOTAL</b>		<b>32 cr hrs</b>	<b>Fourth Year</b>		
<b>Second Year</b>			MDT 395	Hematology/Coagulation Practicum	4
BIO 310	General Microbiology	4	MDT 396	Immunohematology Practicum	4
CHM 312	Organic Chemistry	3	MDT 475	Medical Technology Seminar	1
CHM 312L	Organic Chemistry Lab	1	MDT 480	Clinical Laboratory Administration	2
CSC 150	Computer Literacy	3	MDT 495	Clinical Microbiology Practicum	4
HIS 100	History of Civilization or HIS 101 or any General Educ. Social Sciences	3	MDT 496	Clinical Chemistry Practicum	4
HIS 335*	African-American History	3	<b>TOTAL</b>		<b>19 cr hrs</b>
HUM 210	Humanities or any General Education Humanities	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
HUM 211	Humanities or any General Education Humanities	3	General Education		41
MTH 250	Elementary Statistics Concepts	3	Major Requirements		79
SCM 285	Principles of Speech	3	<b>TOTAL</b>		<b>120 cr hrs</b>
SOC 101	Introduction to Social Science or any General Education Social Sciences	3			
<b>TOTAL</b>		<b>32 cr hrs</b>			

### CERTIFICATE PROGRAM IN HEALTH SERVICES MANAGEMENT

The Certificate in Health Services Management is designed for health care professionals who are seeking to improve their management, administrative, and leadership skills. The target audience for the Certificate Program: (1) persons already employed in the health care field with an associate or bachelor degree; (2) persons currently in a managing position in the health care field or on a career path in the direction of health care management; and (3) persons interested in gaining knowledge of careers in the health care field.

Students wishing to pursue the Certificate in Health Services Management must do the following:

1. Apply for admission to the University;
2. Have a letter of recommendation from the prospective student's supervisor;
3. Have a current position in the health care field;
4. Write a detailed statement of interest in health care management if not employed in the health care field; and
5. Take all semester credits applicable to the Certificate Program at Norfolk State University.

#### Course Work

Courses are taught on-line and/or in the classroom.

HSM 300 – Health Services Management (3 Credit Hours)  
HSM 310 – Health Personnel Management (3 Credit Hours)  
HSM 311 – Legal Aspects and Ethics of Health Care Delivery (3 Credit Hours)  
HSM 331 – Health Financial Management (4 Credit Hours)



Concentration in Health Services Management

The concentration in Health Services Management is for students who have Interdisciplinary Studies as their major. Those students seeking a concentration in Health Services Management can take the Health Services Management core courses as directed by the department of Interdisciplinary Studies.

**COMMUNICATION SCIENCES AND DISORDERS**

The Communication Sciences and Disorders program is a pre-professional training program that prepares students for graduate study in speech-language pathology. Those entering this program should note that employment as a speech-language pathologist is usually not possible for those with only a bachelor's degree. An advanced degree (master's or doctorate) in speech-language pathology is required for state licensure and for certification by the American Speech-Language-Hearing Association.

**COMMUNICATION SCIENCES AND DISORDERS CURRICULUM**

<b>First Year</b>			CSD 313	Introduction to Audiology and Hearing Sciences	3
BIO 105	Human Biology w/Lab	4	ENG 303	Professional & Technical Writing	3
CSC 150	Computer Concepts and Use	3	SWK 220	Human Behavior and Social Environment I	3
ENG 101	Communication Skills I	3	CSD 315	Neurogenic and Other Organic Disorders	3
UNI 101	Introduction to University Life	0	CSD 320	Voice and Speech Science	3
HED 100	Personal and Community Health	2	ENG 306	Introduction to Literary Criticism	3
HIS 100	History of Civilization (101, 102, or 103)	3	ENG 341	Survey of American Literature I	3
CHM 100	Chemistry: Man and Environment	3	SWK 221	Human Behavior II	3
CSD 116	Orientation to Communication Sciences and Disorders	1	<b>TOTAL</b>		<b>30 cr hrs</b>
ENG 102	Communication Skills II	3	<b>Fourth Year</b>		
HRP 190	Introduction to Health Professionals	3	CSD 413	Research Methods in Com. Sciences and Disorders	3
MTH 105	Elementary Algebra	3	CSD 414	Voice and Fluency Disorders	3
PED 100	Fundamentals of Fitness for Life	1	CSD 415	Clinical Practicum in Communication Disorders	3
SOC 101	Introduction to Social Science	3	ENG 342	Survey of American Literature II	3
<b>TOTAL</b>		<b>31 cr hrs</b>	ENG 383	African-American Literature	3
<b>Second Year</b>			CSD 416	Habilitation/Rehabilitation of Hearing Disorders	3
CSC 200	Advanced Computer Concepts	3	CSD 417	Clinical Practicum in Communication Disorders II	3
CSD 213	Computers and other instrumentation in Com. Sciences and Disorders	1	CSD 418	Seminar: Topics in Communication Sciences and Disorders	1
CSD 218	Anatomy & Physiology/Speech Mechanism	3	ENG 419	Contemporary American English Grammar	3
HUM 210	Humanities	3	SPE 310	Characteristics & Strategies of Cognitively Delayed or SPE 342 Learning Disabilities	3
PSY 210	Introduction to Psychology	3	<b>TOTAL</b>		<b>28 cr hrs</b>
SCM 285	Principles of Speech	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
CSD 211	Phonetics	3	General Education Requirements		40
CSD 212	Speech and Language Development	3	Major Requirements (ENFL)		23
ENG 207	Introduction to World Literature	3	Concentration requirements (CSD)		42
HUM 211	Humanities	3	Cognate Electives		15
MTH 250	Elementary Statistics Concepts	3	<b>TOTAL</b>		<b>120 cr hrs</b>
<b>TOTAL</b>		<b>31 cr hrs</b>			
<b>Third Year</b>					
CSD 311	Methods & Materials in Communication Disorders	3			
CSD 312	Phonological/Articulatory & Language Disorders	3			

**DEPARTMENT OF BIOLOGY**

**Camellia Moses Okpodu, Department Head**  
**(757) 823-8512**

The Biology Department provides a diversity of career options through four courses of study that lead to a Bachelor of Science degree in Biology.

The objectives of the Department are as follows:

1. To prepare students for careers in biology.
2. To provide students with pre-professional training for dentistry, medicine, veterinary medicine, podiatry, osteopathy, optometry, and various allied health options.
3. To provide learning experiences in biology for students majoring in other disciplines.

Students who earn a B.S. degree in any of the three areas also have the option of completing a Biotechnology Certificate Program. The four B.S. option areas are as follows:

<b>Option 1</b>	Biology 1, which enables majors to pursue graduate degrees with an option for employment at the bachelor level.
<b>Option 2</b>	Biology 2, students will follow Option 1 then seek specific endorsement. (e.g., teachers' licensure)
<b>Option 3</b>	Biology 4, Pre-professional, which provides a background for students having an interest in medicine, dentistry, veterinary medicine, optometry, pharmacy, osteopathy, and podiatry.

**Biotechnology Certificate :** The curriculum includes 15 credit hours of approved laboratory work in molecular biology/genomics, cell biology, and proteins and proteomics. The program is designed for the continuing education of research technicians with baccalaureate degrees in academic and industrial laboratories, new college graduates who want to enhance their knowledge, and undergraduates who are interested in developing skills in the latest biotechnology techniques.

Students who successfully complete the requirements for either of the four above models will be considered Biology majors. A grade of "C" or better is required in all courses of the major group. The "major group" includes all required science and mathematics courses, and this definition is applicable to all students who enrolled in the Department beginning in the Fall Semester of 1989 and thereafter.

### BIOLOGY 1 CURRICULUM

<b>First Year</b>			<b>Third Year</b>		
BIO 110	General Biology	4	BIO 263	Vertebrate Embryology	4
BIO 160	General Zoology or BIO 161	4	BIO 270	Comparative Anatomy of Vertebrates	4
ENG 101	Communication Skills I	3	BIO 274	Plant Morphology or Bio 278	4
ENG 102	Communication Skills II	3	CHM 321	Organic Chemistry I	3
HED 100	Personal and Community Health	2	CHM 322	Organic Chemistry II	3
HIS 100	History of Civilization	3	CHM 321L	Organic Chemistry I Lab	2
HIS 101	History of Civilization	3	CHM 322L	Organic Chemistry II Lab	2
MTH 151	College Algebra	3	PHY 152	General Physics	3
MTH 153	College Algebra and Trigonometry	3	PHY 153	General Physics	3
PED 100	Fundamentals of Fitness for Life	1	PHY 152L	General Physics Lab	1
<b>TOTAL</b>		<b>29 cr hrs</b>	PHY 153L	General Physics Lab	1
			<b>TOTAL</b>		<b>30 cr hrs</b>
<b>Second Year</b>			<b>Fourth Year</b>		
BIO 161	General Botany or BIO 160	4	African-American Elective from the Core*		3
BIO 271	Ecology or BIO 350	4	Non-Restricted Electives		3
BIO 310	General Microbiology	4	BIO 351	Principles of Genetics	4
CHM 221	General Chemistry I	3	BIO 364	Seminar and Colloquium in Biology	1
CHM 222	General Chemistry II	3	BIO 459	General Physiology	4
CHM 221L	General Chemistry I Lab	1	BIO 474	Molecular Biology and BIO 474L	
CHM 222L	General Chemistry II Lab	1		or BIO 480 and/or BIO 495	8
CSC 150	Computer Literacy or		FIA 301	Art Appreciation and/or HUM 210 and/or	
CSC 200	Advanced Computer Concepts	3		MUS 301 and/or ENG 207	3
FRN 111	Introduction to French, Spanish, or German	3	<b>TOTAL</b>		<b>26 cr hrs</b>
FRN 112	Introduction to French, Spanish, or German	3	* Select from ENG 383, FIA 170, HIS 335, or MUS 234		
SCM 285	Principles of Speech	3			
<b>TOTAL</b>		<b>32 cr hrs</b>	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
			General Education Requirements		42
			Major Requirements		50
			Restricted Electives		28
			<b>TOTAL</b>		<b>120 cr hrs</b>

### BIOLOGY 2 CURRICULUM

#### Teacher Licensure Endorsement

Students wishing to pursue a career in teaching must take the following steps:

1. Follow the curriculum for the Bachelor of Science degree in Biology.
2. Use the elective hours for professional courses.
3. See the academic advisor in their major department.
4. See the academic advisor in the Department of Secondary Education and School Leadership in the Bozeman Education Building, Room 200.
5. Take the PRAXIS test and make a passing score. (See the School of Education PRAXIS coordinator, JBB 125.)
6. Take the following professional education courses (18 semester hours) and complete student teaching (12 semester hours).

SED 201	American Schools and the Teaching Profession	SED 384	Teaching of Mathematics and Sciences in Secondary Schools
SED 233	Seminar in Assessment and Evaluation	SED 486	Educational Psychology and Behavior Management
SED 380	Foundations of Methods in Secondary Schools	SED 499	Directed Teaching and Seminar

**BIOLOGY 4 CURRICULUM (PRE-PROFESSIONAL)****First Year**

BIO 110	General Biology	4
BIO 160	General Zoology or BIO 161	4
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 100	History of Civilization	3
HIS 101	History of Civilization	3
MTH 151	College Algebra	3
MTH 153	College Algebra & Trigonometry	3
PED 100	Fundamentals of Fitness for Life	1
<b>TOTAL</b>		<b>29 cr hrs</b>

**Second Year**

BIO 161	General Botany or BIO 160	4
BIO 271	Ecology or BIO 350	4
BIO 310	General Microbiology	4
CHM 221	General Chemistry I	3
CHM 222	General Chemistry II	3
CHM 221L	General Chemistry I Lab	1
CHM 222L	General Chemistry II Lab	1
FIA 301	Art Appreciation or HUM 210 or	
MUS 301 or ENG 207		3
FRN 111	Introduction to French, Spanish, or German	3
FRN 112	Introduction to French, Spanish, or German	3
SCM 285	Principles of Speech	3
<b>TOTAL</b>		<b>31 cr hrs</b>

**Third Year**

Electives (nonrestricted)	3
BIO 263     Vertebrate Embryology	4
BIO 270     Comparative Anatomy of Vertebrates	4
BIO 459     General Physiology	4
CHM 321     Organic Chemistry I	3
CHM 322     Organic Chemistry II	3
CHM 321L   Organic Chemistry I Lab	2
CHM 322L   Organic Chemistry II Lab	2
PHY 152     General Physics	3
PHY 153     General Physics	3
PHY 152L   General Physics Lab	1
PHY 153L   General Physics Lab	1
<b>TOTAL</b>	<b>33 cr hrs</b>

**Fourth Year**

African-American Elective from the Core*	3
BIO 351 Principles of Genetics	4
BIO 362 Histology and Micro technique	4
BIO 364 Seminar and Colloquium in Biology	1
CHM 431 Biochemistry I	3
CHM 431L Biochemistry I Lab	1
CSC 150 Computer Literacy or	
CSC 200 Advanced Computer Concepts	3
FIA 301 Art Appreciation or HUM 210 or	
MUS 301 or ENG 207	3
MTH 184 Calculus I	4
<b>TOTAL</b>	<b>26 cr hrs</b>

\*Select from ENG 383, FIA 170, HIS 335, or MUS 234

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements	42
Major Requirements	75
Non-restricted Elective	3
<b>TOTAL</b>	<b>120 cr hrs</b>

**BIOTECHNOLOGY CERTIFICATE PROGRAM**

To be eligible for admission to the Biotechnology Certificate Program a student must complete the following:

1. Apply for admission to the Biotechnology Program
2. Have completed all pre-requisite course work for courses related in the program
3. Have an overall cumulative grade point average of 2.8 on a 4.0 scale

**COURSE WORK**

BIO 474	Molecular Biology: Three credit hours. Prerequisite- BIO 351 Principles of Genetics, BIO 310, CHM 222, 222L
BIO 474L	Molecular Biology Laboratory: Two credit hours. Prerequisite- BIO 474
BIO 499	Tissue And Cell Culture: Four credit hours. Prerequisite- Consent of Instructor
BIO 510	Experience In Biology: Three credit hours. Prerequisite- Bio 110, General Biology
BIO 520	Special Problems In Biology: Three credit hours. Prerequisite- Bio 110, general Biology
CHM 431	Biochemistry I: Three credit hours. Prerequisites- CHM 322 and CHM 362
CHM 431L	Biochemistry I Laboratory: Three credit hours. Prerequisites- CHM 322L or 323L
CHM 432	Biochemistry II: Three credit hours. Prerequisites- CHM 322 and CHM 362
CHM 432L	Biochemistry II Laboratory: Three credit hours. Prerequisites- CHM 322L or 323L
CHM 481	Special Topics In Chemistry: Three credit hours. Prerequisites- Approval of Chemistry Department
BIO 452	Biological Instrumental Techniques: Two credit hours. Prerequisites- CHM 221, 222 and CHM 221L and 222L.
BIO 400	Forensic Molecular Biology: Four credit hours. Prerequisites- Principles of Genetics and Organic Chemistry.

**MINOR IN BIOLOGY**

Completion of a minor requires that a student earn a C (2.0) or better in each of the required courses. Substitutions are not possible for core courses.

**CORE COURSES**

BIO 110	General Biology	3
BIO 110L	General Biology Lab	1
BIO 160	General Zoology	3
BIO 160L	General Zoology Lab	1
BIO 161	General Botany	3
BIO 161L	General Botany Lab	1

**ADDITIONAL COURSE REQUIREMENTS (choose 2)**

BIO 253	Human Physiology	3
BIO 272	Human Anatomy	3
BIO 272L	Human Anatomy Lab	1
BIO 278	Cell Biology	3
BIO 278L	Cell Biology Lab	1
BIO 310	General Microbiology	3
BIO 310L	General Microbiology Lab	3
BIO 351	Genetics	3
BIO 351	Genetics Lab	1
BIO 4xx	BIO 459, 461, 469, 474, 495 or 499	3
BIO 4xxL	BIO 459L, 461L, 469L, 474L, 495L or 499L	1

**TOTAL** **19 - 21 cr hrs**

**DEPARTMENT OF CHEMISTRY**

**H. Alan Rowe, Department Head**  
**(757) 823-2285**

The Department of Chemistry provides the instruction necessary for the understanding of chemistry for students seeking the B.S. degree with a major in Chemistry and supports undergraduate programs in other disciplines. The Department also provides research opportunities for students wishing to contribute to knowledge in areas of chemistry.

The Chemistry Department offers several chemistry based curricula choices leading to a B.S. degree in Chemistry: Chemistry, Chemistry with an emphasis in Pre-Medicine (not a degree in Pre-Medicine), Chemistry with an emphasis in Food Science/Nutrition, and the dual degree B.S. in Chemistry-M.S. in Materials Science curriculum. Students wishing to teach chemistry in secondary schools must earn a B.S. degree in the Chemistry curriculum and fulfill the requirements for the Teacher Licensure Endorsement offered by the School of Education. The various curricula prepare graduates to continue their education in graduate or professional schools, or to obtain entry-level positions in industry, government, or education.

The objectives of the Department are:

1. To develop in students an appreciation of the scientific method and its use in the solution of chemical problems.
2. To develop the basic training in chemistry designed to meet the needs of students in pre-professional fields and professional fields.
3. To develop in students those qualities and abilities necessary for success in industry and in advanced degree institutions.
4. To offer sufficient specialized training beyond the generally recognized basic courses to enable a graduate with a bachelor's degree to enter directly into a professional career.

The Chemistry and the Chemistry- Pre-Medicine curricula are approved by the American Chemical Society.

## CHEMISTRY CURRICULUM

<b>First Year</b>				CHM 332	Analytical Chemistry II	3
CHM 223	General Chemistry I	4		CHM 332L	Analytical Chemistry II Lab	2
CHM 224	General Chemistry II	4		CHM 345	Math Methods and Logic	3
CHM 221L	General Chemistry I Lab	1		CHM 351	Seminar or CHM 352	1
CHM 222L	General Chemistry II Lab	1		CHM 361	Physical Chemistry I	3
CSC 150	Computer Literacy or			CHM 362	Physical Chemistry II	3
CSC 261	Fortran Programming	3		CHM 363L	Physical Chemistry Lab	2
ENG 101	Communication Skills I	3		HIS XXX	History from the Core	3
ENG 102	Communication Skills II	3		SCM 285	Principles of Speech	3
HED 100	Personal and Communication Health	2		<b>TOTAL</b>		<b>29 cr hrs</b>
MTH 153	College Algebra and Trigonometry	3		<b>Fourth Year</b>		
MTH 184	Calculus I	4		Electives		4
PED 100	Fundamentals of Fitness for life	1		Chemistry (Restricted Electives)*		6
<b>TOTAL</b>		<b>29 cr hrs</b>		Cultural Elective from the Core		3
<b>Second Year</b>				Humanities from the Core		6
CHM 321	Organic Chemistry I	3		CHM 451	Seminar or CHM 452	1
CHM 322	Organic Chemistry II	3		CHM 473	Advanced Inorganic Chem	3
CHM 321L	Organic Chemistry I Lab	2		CHM 431	Biochemistry	3
CHM 331	Analytical Chemistry I	3		SOC 101	Introduction to Social Science	3
CHM 331L	Analytical Chemistry I Lab	2		CHM 497 or		
CSC 160	Visual Basic Programming or CSC 261	3		CHM 498	Introduction to Research	1
MTH 251	Calculus II	4		<b>TOTAL</b>		<b>30 cr hrs</b>
MTH 252	Calculus III	4		*Select 6 hours from 400 level Chemistry electives. Maximum of 3 total hours of research.		
PHY 152	General Physics	3		<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
PHY 153	General Physics	3		General Education		42
PHY 152L	General Physics Lab	1		Major Requirements		74
PHY 153L	General Physics Lab	1		Electives		4
<b>TOTAL</b>		<b>32 cr hrs</b>		<b>TOTAL</b>		<b>120 cr hrs</b>
<b>Third Year</b>						
BIO 110	General Biology	4				
CHM 323L	Synthesis & Analysis in Organic Chemistry	2				

## Teacher Licensure Endorsement

Students wishing to pursue a career in teaching must take the following steps:

1. Follow the curriculum for the liberal arts degree in Chemistry.
2. Use the elective hours for professional courses.
3. See the academic advisor in their major department.
4. See the academic advisor in the Department of Secondary Education and School Leadership in the Bozeman Education Building, Room 200.
5. Take the PRAXIS test and make a passing score. (See the School of Education PRAXIS coordinator, JBB 125.)
6. Take the following professional education courses (18 semester hours) plus student teaching (12 semester hours).

SED 201	American Schools and the Teaching Profession	SED 384	Teaching of Mathematics and Sciences in Secondary Schools
SED 233	Seminar in Assessment and Evaluation	SED 486	Educational Psychology and Behavior Management
SED 380	Foundations of Methods in Secondary Schools	SED 499	Directed Teaching and Seminar

**CHEMISTRY PRE-MEDICINE CURRICULUM****First Year**

CHM 221L	General Chemistry I	4
CHM 222L	General Chemistry II	4
CHM 221L	General Chemistry I Lab	1
CHM 222L	General Chemistry II Lab	1
CSC 150	Computer Literacy or CSC 261	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus I	4
PED 100	Fundamentals of Fitness for Life	1
UNI 101	Introduction to University Life	0
<b>TOTAL</b>		<b>29 cr hrs</b>

**Second Year**

CHM 321	Organic Chemistry I	3
CHM 322	Organic Chemistry II	3
CHM 321L	Organic Chemistry I Lab	2
CHM 331	Analytical Chemistry I	3
CHM 331L	Analytical Chemistry I Lab	2
CSC 160	Visual Basic Programming or CSC 261	3
MTH 251	Calculus II	4
MTH 252	Calculus III	4
PHY 152	General Physics	3
PHY 153	General Physics	3
PHY 152L	General Physics Lab	1
PHY 153L	General Physics Lab	1
<b>TOTAL</b>		<b>32 cr hrs</b>

**Third Year**

History from the Core		3
BIO 110	General Biology	4
CHM 323L	Synthesis and Analysis in Organic Chemistry	2
CHM 332	Analytical Chemistry II	3
CHM 332L	Analytical Chemistry II Lab	2
CHM 345	Math Methods and Logic	3
CHM 351	Seminar or CHM 352	1
CHM 361	Physical Chemistry I	3
CHM 362	Physical Chemistry II	3
CHM 363L	Physical Chemistry Lab	2
SCM 285	Principles of Speech	3
<b>TOTAL</b>		<b>29 cr hrs</b>

**Fourth Year**

Biology Electives	7
Cultural Elective from the Core	3
Humanities from the Core	6
CHM 431 Biochemistry I	3
CHM 432 Biochemistry II	3
CHM 431L Biochemistry I Lab	2
CHM 432L Biochemistry II Lab	2
CHM 451 Seminar or CHM 452	1
CHM 473 Advanced Inorganic Chemistry	3
SOC 101 Social Science from the Core	3
<b>TOTAL</b>	<b>33 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education	40
Major Requirements	80
Electives	3
<b>TOTAL</b>	<b>123 cr hrs</b>

**CHEMISTRY: FOOD SCIENCE AND NUTRITION CURRICULUM****First Year**

CHM 221L	General Chemistry I	4
CHM 221L	General Chemistry Lab I	1
CHM 222L	General Chemistry II	4
CHM 222L	General Chemistry Lab II	1
CSC 150	Computer Literacy	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
FSN 101	Introduction to Dietetics & Food Science	2
FSN 102	Prof. Experiences Seminar	1
FSN 110	The Science of Human Nutrition	3
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus I	4
PED 100	Fundamentals of Fitness for Life	1
<b>TOTAL</b>		<b>33 cr hrs</b>

**Second Year**

Humanities from the Core		6
BIO 310	General Microbiology	4
CHM 321	Organic Chemistry I	3
CHM 321L	Organic Chemistry I Lab	2
CHM 322	Organic Chemistry II	3
CHM 323L	Synthesis and Analysis in Organic Lab	2
CHM 331	Analytical Chemistry I	3
CHM 331L	Analytical Chemistry I Lab	2
FSN 160	Food Cost Control	3
FSN 312	Chemical Foundations of Nutrition	3
<b>TOTAL</b>		<b>31 cr hrs</b>

**Third Year**

CHM 313	Biochemistry	3
CHM 313L	Biochemistry Lab	1
CHM 332	Analytical Chemistry II	3
FSN 410	Nutrition in Aging	3

CHM 332L	Analytical Chemistry II Lab	2
FSN 320	Food Service Administration	3
FSN 330	Scientific Food Development	3
FSN 330L	Sciences Food Development Lab	1
FSN 340	Nutrition Education	3
PHY 152	General Physics	3
PHY 152L	General Physics Lab	1
PHY 153	General Physics	3
PHY 153L	General Physics Lab	1
SCM 285	Principles of Speech	3
<b>TOTAL</b>		<b>33 cr hrs</b>

**Fourth Year**

Cultural Elective		3
FSN 449	Nutrition in Sports	3
CHM 361	Physical Chemistry	3
CHM 363L	Physical Chemistry Lab	2
FSN 356	Advanced Nutrition	3
FSN 426	Nutrition in Disease	3
FSN 426L	Nutrition in Disease Lab	1
FSN 450	Professional Seminar	3
FSN 460	Quantity Food Production	3
FSN 484	Rural/Urban Nutrition	3
HIS 101	History of Civilization	3
SOC 101	Social Science	3
<b>TOTAL</b>		<b>33 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education	40
School Requirement	0
Major Requirements	84
Elective	6
<b>TOTAL</b>	<b>130 cr hrs</b>

**B.S. IN CHEMISTRY/ M.S. IN MATERIALS SCIENCE CURRICULUM**

<b>First Year</b>			CHM 451	Seminar or CHM 452	1
CHM 223	General Chemistry I	4	CHM 473	Advanced Inorganic Chemistry	3
CHM 224	General Chemistry II	4	MATS 530	Materials Science	3
CHM 221L	General Chemistry I Laboratory	1	BIO 110	General Biology	4
CHM 222L	General Chemistry II Laboratory	1	PHY 356	Heat and Thermodynamics	3
CSC 160	Visual Basic Programming and/or CSC 261 and/or CSC 292	6	PHY 580	Quantum Mechanics for Mat. Science	3
ENG 101	Communication Skills I	3	<b>TOTAL</b>		<b>32 cr hrs</b>
ENG 102	Communication Skills II	3	*Select one from:		
HED 100	Personal and Community Health	2	HIS 100, 101, 102, or 103		
MTH 153	College Algebra and Trigonometry	3	**Select one from:		
MTH 184	Calculus I	4	HUM 210, 211, ENG 383, FIA 170, MUS 234		
PED 100	Fundamentals of Fitness for Life	1	***Select one from:		
<b>TOTAL</b>		<b>32 cr hrs</b>	HIS 335, 336, 370, 371, 377, ENG 383, PSY 340, SOC 237, POS 315, FIA 170, MUS 234		
<b>Second Year</b>			****Select one from:		
SCM 285	Principles of Speech	3	CHM 431, 432, 431L, 432L, 473L, 475, 476, 481, 461L, 462L, 478, CHM 397, 398, 497, 498		
CHM 321	Organic Chemistry I	3	<b>SUMMARY OF REQUIREMENTS</b>		
CHM 322	Organic Chemistry II	3	General Education		38
CHM 321L	Organic Chemistry I Lab	2	Major Requirements		88
CHM 331	Analytical Chemistry I	3	Electives		4
CHM 331L	Analytical Chemistry I Lab	2	<b>TOTAL</b>		<b>130 cr hrs</b>
MTH 251	Calculus II	4	Summer		
MTH 252	Calculus III	4	MATS 697 Research I		3
PHY 250	University Physics	4	<b>TOTAL</b>		<b>3 cr hrs</b>
PHY 251	University Physics	4	<b>Fifth Year</b>		
PHY 250L	University Physics Lab	1	MATS 533 Polymers and Polymer-Based Composites		3
PHY 251L	University Physics Lab	1	Technical Elective		3
<b>TOTAL</b>		<b>34 cr hrs</b>	Technical Elective		3
<b>Third Year</b>			MATS 535 Electronic and Optical Materials		3
History from the Core*		3	MATS 575 Instrumentation for Materials Characterization		3
CHM 323L	Synthesis and Analysis in Organic Chemistry	2	MATS 799 Thesis Research		3
CHM 332	Analytical Chemistry II	3	Technical Elective		3
CHM 332L	Analytical Chemistry II Lab	2	<b>TOTAL</b>		<b>21 cr hrs</b>
CHM 451	Seminar or CHM 452	1	Technical electives to be selected from:		
CHM 361	Physical Chemistry I	3	CHM 573 Advanced Inorganic Chemistry		3
CHM 362	Physical Chemistry II	3	CHM633 Molecular Dynamics		3
CHM 363L	Physical Chemistry Lab	2	CHM663 Atomic and Molecular Spectroscopy		3
CHM 345	Math Methods and Logic	3	PHY 653 Solid State Physics		3
MTH 372	Differential Equations	3	PHY 675 Electricity and Magnetism		3
Humanities from the Core**		3	MATS 610 Special Topics I		3
SOC 101	Social Science from the Core	3	MATS 710 Special Topics II		3
<b>TOTAL</b>		<b>31 cr hrs</b>	<b>GRAND TOTAL</b>		<b>153 cr hrs</b>
<b>Fourth Year</b>					
Cultural Elective from the Core***		3			
Unrestricted Elective		3			
Humanities from Core**		3			
Restricted Chemistry Elective****		3			
CHM 545	Math Methods	3			

**DEPARTMENT OF COMPUTER SCIENCE**

**George C. Harrison, Department Head**  
**(757) 823-9454**

The Computer Science Program is designed to provide students with fundamental training in the theoretical and practical aspects of computer science. Coupled with the program's strong mathematics component, this training provides graduates with the necessary background for employment in a wide variety of computing fields or for a smooth entry into graduate level study.

A. Upon graduation, computer science students will be able to demonstrate knowledge and applications of the following:

1. The basic elements of computer theory.
2. Computer organization and operating systems.
3. Data communications and networks.
4. Programming design methods.
5. Basic elements of the analysis of algorithms.
6. Ethical decision-making.

B. Upon graduation, computer science students will be able to demonstrate the following skills:

1. Ability to express computer science-related topics orally.
2. Ability to express computer science-related topics in writing.

C. Upon graduation, computer science students will have experienced the following:

1. Work on multiple teams.
2. Software development.

In addition, the Department provides service courses to assist students of all majors in mastering fundamental computer concepts and a variety of programming languages.

The Department of Computer Science offers the B.S. Degree in Computer Science, which includes the following specialty areas:

-Computer Science (General Program)  
-Computer Engineering  
-Information Systems

Computer Science general option is also available for students enrolled in the DNIMAS Program.

The program addresses a number of career opportunities within the curriculum. The Computer Engineering option is suitable for students who are interested in the design and implementation of hardware. The Information Systems option qualifies students for employment in business environments.

#### **MINOR IN COMPUTER SCIENCE**

A Computer Science Minor consists of the following 18 credit hours of required courses:

CSC 170	Computer Programming I	CSC 372	Data Structures
CSC 260	Computer Programming II	CSC 464	Operating Systems
CSC 268	Assembly Language Programming and Computer Organization	CSC elective at the 300 or 400 level	

#### **GENERAL DEPARTMENT REQUIREMENTS**

Computer Science majors must complete 120 credits to complete the B.S. degree. Additionally:

1. Students must meet prerequisites or their equivalents prior to enrolling in more advanced computer science courses.
2. Computer science majors must earn at least a "C" grade in all science, mathematics and computer science courses. In addition, majors with specialty in computer engineering must receive a "C" grade or better in all engineering courses, and majors with specialty in information systems must receive a "C" grade or better in all courses taken in the School of Business.
3. Computer Science majors are not permitted to enroll in any course, the content of which is prerequisite, or assumed knowledge, for a higher level course that a student has already completed.
4. Computer Science majors must also pass a comprehensive examination covering the content of the core courses through CSC 372.

The B.S. degree program in Computer Science is accredited by the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone: (410) 347-7700.



**COMPUTER SCIENCE: GENERAL EMPHASIS CURRICULUM**

<b>First Year</b>			<b>Third Year</b>		
UNI 101	Introduction to University Life	0	MTH 351	Probability and Statistics I	3
CHM 221,	221L or PHY 152, 152L or BIO 110, 110L			Humanities or Foreign Languages	6
	Chemistry I and Lab; Physics I and			Cultural Elective	3
	Lab or General Biology	4	CSC 295	Java Applications Programming	3
CHM 222,	222L or PHY 153, 153L or BIO 160		CSC 361	Survey of Programming Languages	3
	or BIO 161 Chemistry II and Lab or		CSC 372	Data Structures	3
	Physics II and Lab or General		CSC 380	Software Engineering	3
	Zoology or General Botany	4		Comp Sci Electives (300 or above)	6
MTH 153	College Algebra and Trigonometry	3	<b>TOTAL</b>		<b>30 cr hrs</b>
MTH 184	Calculus I	4	<b>Fourth Year</b>		
ENG 101	Communication Skills I	3		Computer Science Electives (300	
ENG 102	Communication Skills II	3		level or above)	6
CSC 101	Intro to Comp Sci Profession	1		Computer Science or Mathematics	
CSC 170	Computer Programming I	3		Electives (300 level or above)	6
CSC 170L	Computer Programming I Lab	1		Social Science Elective	3
CSC 260	Computer Programming II	3	CSC 430	Data Communication	3
CSC 260L	Computer Programming II Lab	1	CSC 464	Operating Systems	3
<b>TOTAL</b>		<b>30 cr hrs</b>	CSC 468	Computer Architecture	3
<b>Second Year</b>			CSC 498	Computer Science Seminar I	1
Laboratory	Science Elective (BIO 110, PHY 152,		CSC 499	Computer Science Seminar II	2
	or CHM 221 and the corresponding		Free Elective		3
	laboratory)	4	<b>TOTAL</b>		<b>30 cr hrs</b>
MTH 251	Calculus II	4	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
MTH 371	Discrete Mathematical Structures	4		General Education Requirements	42
ENG 303	Technical Writing	3		Major Requirements	75
SCM 285	Principles of Speech	3		General Elective	3
	Social Science Elective	3	<b>TOTAL</b>		<b>120 cr hrs</b>
CSC 268	Computer Organization and Assembly				
	Language Programming	3			
HED 100	Personal and Community Health	2			
PED 100	Fundamentals of Fitness for Life	1			
CSC 292	Unix and C Programming	3			
<b>TOTAL</b>		<b>30 cr hrs</b>			

**COMPUTER SCIENCE: COMPUTER ENGINEERING CURRICULUM**

<b>First Year</b>			<b>Third Year</b>		
UNI 101	Introduction to University Life	0	EEN 301/301L	Electronics I and Lab	4
BIO 110	or CHM 221 / CHM 211L	4	MTH 351	Probability and Statistics	3
MTH 153	College Algebra and Trigonometry	3	MTH 371	Discrete Mathematical Structures	4
MTH 184	Calculus I	4	MTH 372	Differential Equations	3
ENG 101	Communication Skills I	3		Humanities or Foreign Language	6
ENG 102	Communication Skills II	3	CSC 292	Unix and C Programming	3
CSC 101	Intro to Comp Sci Professions	1	CSC 361	Survey of Programming Language	3
CSC 170	Computer Programming I	3	CSC 372	Data Structures	3
CSC 170L	Computer Programming I Lab	1	CSC 380	Software Engineering	3
CSC 260	Computer Programming II	3	<b>TOTAL</b>		<b>32 cr hrs</b>
CSC 260L	Computer Programming II Lab	1	<b>Fourth Year</b>		
	Social Science Elective	3	EEN 231	Digital Electronics Logic Design	3
<b>TOTAL</b>		<b>29 cr hrs</b>	EEN Elective 300 level or above		3
<b>Second Year</b>			Cultural Elective		3
EEN 201/201L	Elect Network Theory and Lab	4	Social Science Elective		3
PHY 160/160L and PHY 161/161L	University		CSC 295	Java Applications Programming	3
	Physics I and II	10	CSC 430	Data Communications	3
MTH 251	Calculus II	4	CSC 464	Operating Systems	3
MTH 252	Calculus III	4	CSC 468	Computer Architecture	3
SCM 285	Principles of Speech	3	CSC 498	Computer Science Seminar I	1
CSC 268	Computer Organization and Assembly		CSC 499	Computer Science Seminar II	2
	Language Programming	3		Computer Science Elective 300 level or above	3
PED 100	Fundamentals of Fitness for Life	1	<b>TOTAL</b>		<b>30 cr hrs</b>
HED 100	Personal and Community Health	2	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
<b>TOTAL</b>		<b>31 cr hrs</b>		General Education Requirements	42
				Major Requirements	80
			<b>TOTAL</b>		<b>122 cr hrs</b>

**COMPUTER SCIENCE: INFORMATION SYSTEMS CURRICULUM****First Year**

UNI 101	Introduction to University Life	0
CHM 221,	221L or PHY 152, 152L or BIO 110, 110L	
	Chemistry I and Lab; Physics I	
	and Lab or General Biology	4
CHM 222,	222L or PHY 153, 153L or BIO 160 or	
	BIO 161, Chemistry II and Lab	
	or Physics II and Lab or General	
	Zoology or General Botany	4
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus I	4
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
CSC 101	Intro to Comp Sci Profession	1
CSC 170	Computer Programming I	3
CSC 170 L	Computer Programming I Lab	1
CSC 260	Computer Programming II	3
CSC 260L	Computer Programming II Lab	1
<b>TOTAL</b>		<b>30 cr hrs</b>

**Second Year**

Laboratory Science Elective (BIO 110, PHY 152,		
or CHM 221 and the corresponding		
laboratory)	4	
MTH 251	Calculus II	4
MTH 371	Discrete Mathematical Structures	4
ENG 303	Technical Writing	3
SCM 285	Principles of Speech	3
PSY 210	Introduction to Psychology	3
CSC 268	Computer Organization and Assembly	
	Language Programming	3
CSC 292	Unix and C Programming	3
PED 100	Fundamentals of Fitness for Life	1
HED 100	Personal and Community Health	2
<b>TOTAL</b>		<b>30 cr hrs</b>

**Third Year**

MTH 351	Probability and Statistics I	3
	Humanities or Foreign Language	6
	Business Electives (see list below)	6
CSC 295	Java Applications Programming	3
CSC 361	Survey of Programming Languages	3
CSC 372	Data Structures	3
CSC 380	Software Engineering	3
	Computer Science Elective (300 level or above)	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**Fourth Year**

	Cultural Elective	3
	Social Science Electives	6
MSY 410	Systems Analysis	3
CSC 420	Database Principles and Design	3
CSC 422	Database Implementation	3
CSC 430	Data Communications	3
CSC 464	Operating Systems	3
CSC 468	Computer Architecture	3
CSC 498	Computer Science Seminar I	1
CSC 499	Computer Science Seminar II	2
<b>TOTAL</b>		<b>30 cr hrs</b>

**Business Electives**

ACC 201	Principles of Accounting I	
ACC 202	Principles of Accounting II	
MGT 365	Organizational Behavior and Theory	
MKG 366	Principles of Marketing	
DSC 370	Total Quality Management	

**SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements	42
Major Requirements	75
Free Electives	3
<b>TOTAL</b>	<b>120 cr hrs</b>

**DEPARTMENT OF ENGINEERING****Sean Jones, Department Head****(757) 823-2243**

The Department of Engineering at Norfolk State University offers B.S. degrees in Electronics and Optical Engineering. The Department also offers M.S. degrees in Electronics and Optical Engineering. The Department of Engineering has an advisory board composed of national leaders from government, universities, and industry. The advisory board provides vision and insight for all departmental initiatives conducted by the faculty.

The Department of Engineering offers its students a variety of options for obtaining both the B.S. and M.S. degrees in a variety of research specialties. The B.S. and M.S. degree programs in Electronics Engineering will offer students several tracks for their specialties. These include microelectronics, communications, and computer engineering. The B.S. degree program in optical engineering will allow students exciting opportunities to conduct research at major research facilities, both nationally and internationally for academic credit. Areas of research include quantum optics, nano-technology, and opto-electronics.

In order to provide the best possible undergraduate education, the Department embraces the standards established by the Accreditation Board for Engineering and Technology (ABET). Additionally, graduates of the Department must:

- Be able to apply knowledge of mathematics, science, and engineering to solve problems in electronics, optical, and network engineering.
- Be able to design and conduct experiments related to engineering, as well as to analyze and interpret data.
- Be able to design a system, component, or process to meet desired needs in engineering.
- Be able to function on multi-disciplinary teams.
- Understand professional and ethical responsibility.
- Be able to communicate effectively.
- Understand the impact of engineering solutions in a global and societal context.

**ELECTRONICS ENGINEERING CURRICULUM**

The curriculum is designed to give students a thorough knowledge of the methods of design, application, and analysis of electronic systems. Although emphasis is placed on the basic fundamentals of Electronics Engineering, modern topics are covered. The goals are to produce graduates capable of performing well in both industry and in graduate school.

<b>First Year</b>			EEN 301L	Engineering Electronics I Lab	1
EEN 100	Introduction to Electronics Engineering	3	EEN 305	Signals and Systems I	3
EEN 101	Engineering Use of Computers	3	EEN 310	Engineering Electronics II	3
ENG 101	Communication Skills I	3	EEN 310L	Engineering Electronics Lab II	1
ENG 102	Communication Skills II	3	EEN 333	Digital Integrated Circuits	3
UNI 101	Introduction to University Life	0	EEN 333L	Digital Integrated Circuits Lab	1
HED 100	Personal and Community Health	2	EEN 342	Electromagnetic Field Theory	3
MTH 184	Calculus I	4	EEN 351	Communications Engineering	3
MTH 251	Calculus II	4	EEN 331	Microprocessors	3
PED 100	Fundamentals of Fitness for Life	1	EEN 331L	Microprocessor Lab	1
PHY 250	University Physics Lecture	4	Engineering Elective (300 level or above)		3
PHY 250L	University Physics Lab	1	MTH 300	Linear Algebra	3
PHY 251	University Physics Lecture	4	<b>TOTAL</b>		<b>34 cr hrs</b>
PHY 251L	University Physics Lab	1			
<b>TOTAL</b>		<b>33 cr hrs</b>	<b>Fourth Year</b>		
<b>Second Year</b>			Cultural Elective		3
	Social Science from the core	3	Social Science from core		3
	Humanities from the core	3	EEN 401	Engineering Seminar	1
EEN 201	Electrical Network Theory I	3	EEN 411	Engineering Economics	3
EEN 201L	Electrical Network I Lab	1	EEN 471	Control Systems Analysis	3
EEN 202	Electrical Network Theory II	3	EEN 498	Senior Project (stage I)	3
EEN 202L	Electrical Network II Lab	1	EEN 499	Senior Project (stage II)	3
EEN 211	Material Science	3	Engineering Elective		3
EEN 212	Probability and Statistics	3	Technical Elective		3
EEN 231	Digital Logic Design	3	Unrestricted Elective		3
MTH 252	Calculus III	4	<b>TOTAL</b>		<b>28 cr hrs</b>
MTH 372	Differential Equations	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
SCM 285	Principles of Speech	3	General Education Requirements		40
<b>TOTAL</b>		<b>33 cr hrs</b>	Major Requirements		76
<b>Third Year</b>			Electives		12
	Humanities from the Core	3	<b>TOTAL</b>		<b>128 cr hrs</b>
EEN 301	Engineering Electronics I	3			

Technical elective may be chosen from 300 level courses in math, computer science, chemistry, physics or engineering.

**OPTICAL ENGINEERING CURRICULUM**

The curriculum is designed to give the student a thorough knowledge of the methods of design, application, and analysis of optical systems. Although emphasis is placed on the basic fundamentals of Optical Engineering, modern topics are covered. The goal is to produce graduates capable of performing well in both industry and in graduate school.

<b>First Year</b>			<b>Third Year</b>		
EEN 141	Engineering Use of Computers	3	Humanities from the Core		3
ENG 101	Communication Skills I	3	Engineering Elective		3
ENG 102	Communication Skills II	3	Social Science from the Core		3
UNI 101	Introduction to University Life	0	EEN 342	Electromagnetic Field Theory	3
HED 100	Personal and Community Health	2	MTH 300	Linear Algebra	3
MTH 184	Calculus I	4	MTH 384	Math Modeling	3
MTH 251	Calculus II	4	OEN 320	Optical Systems Analysis	3
OEN 100	Introduction to Engineering	3	OEN 340	Laser and Photonics	3
PED 100	Fundamentals of Fitness for Life	1	OEN 340L	Laser and Photonics Lab	1
PHY 250	University Physics Lecture	4	OEN 360	Introduction to Optical Materials	3
PHY 250L	University Physics Lab	1	OEN 380	Introduction to Quantum Mechanics	3
PHY 251	University Physics Lecture	4	<b>TOTAL</b>		<b>31 cr hrs</b>
PHY 251L	University Physics Lab	1			
<b>TOTAL</b>		<b>33 cr hrs</b>	<b>Fourth Year</b>		
<b>Second Year</b>			Cultural Elective		3
Humanities from the core		3	Engineering Elective		3
EEN 257	Material Science	3	Elective		3
EEN 200	Elements of Electronics I	3	Social Science from core		3
MTH 252	Calculus III	4	EEN 442	Engineering Economics	3
MTH 372	Differential Equations	3	OEN 460	Optical Communications I	3
MTH 373	Advanced Vector Calculus	3	OEN 460L	Optical Communications Lab I	1
OEN 200	Geometric and Instrumentation Optics I	3	OEN 461	Optical Communications II	3
OEN 200L	Geometric and Instrumentation Opt Lab I	1	OEN 461L	Optical Communications Lab II	1
OEN 201	Geometric and Instrumentation Optics II	3	OEN 490	Senior Seminar	1
OEN 201L	Geometric and Instrumentation Opt Lab II	1	OEN 498	Senior Project (stage I)	3
PHY 320	Waves	3	OEN 499	Senior Project (stage II)	3
SCM 285	Principles of Speech	3	<b>TOTAL</b>		<b>30 cr hrs</b>
<b>TOTAL</b>		<b>33 cr hrs</b>	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
			General Education Requirements		40
			Major Requirements		84
			Electives		3
			<b>TOTAL</b>		<b>127 cr hrs</b>

**DEPARTMENT OF MATHEMATICS**  
**Michael Keeve, Department Head**  
**(757) 823-8820**

The Mathematics Department assists students of all majors in mastering the quantitative skills necessary for success in their various disciplines. The Department prepares students majoring in mathematics for careers in the mathematical sciences from both a theoretical and an applied viewpoint, providing simultaneous preparation for those who wish to pursue graduate study. The Department's specific goals are summarized as follows:

1. To assist students of all majors in mastering basic mathematical skills, maximizing their problem-solving skills, and acquiring an appreciation for the critical role of quantitative thinking in modern society.
2. To aid students in developing the mathematical and computational skills necessary for use in various quantitative fields such as engineering and the natural sciences, business and economics, and the vocational areas.
3. To prepare students for various career opportunities as mathematicians in the applied sciences.
4. To prepare secondary level mathematics teachers.
5. To help students develop the necessary background for further study at the graduate level.

### FACILITIES

The Department maintains a fully equipped Mathematics Resource Center for students enrolled in entry level mathematics courses. In addition, the Department shares with the Computer Science Department a Microcomputer Laboratory.

### THE MATHEMATICS CURRICULUM

#### General Department Requirements

All students at Norfolk State University are required to complete the General Education Core in order to qualify for the bachelor's degree. Additionally, the Department requires that:

1. All majors complete the prerequisites or their equivalents prior to enrolling in more advanced mathematics courses.
2. Mathematics majors earn at least a grade of "C" in all mathematics and computer science courses and in certain other courses specified in the curriculum.
3. Mathematics majors pass a comprehensive examination covering the content of the core mathematics courses.

## Programs of Study

The Department of Mathematics offers the B.S. degree in Mathematics. The curriculum emphasizes two areas: Applied Mathematics and Mathematics with Teacher Certification, for those seeking to teach mathematics in the public schools.

**Applied Mathematics:** This option provides a strong preparation in mathematics with applications in engineering and the physical sciences. Graduates in this program are qualified as mathematical scientists or engineers for opportunities in industry, government, or graduate school.

**Teacher Certification:** This program is designed to prepare students to teach mathematics at the secondary school level. Students must apply for admission to teacher education, and admission requirements include passing the PRAXIS I Examination. The Master of Arts in Teaching (MAT) and the Master of Arts in Urban Education (MASAC) degrees are offered through the School of Education with concentrations in mathematics. The School of Education also offers programs of certification to persons with degrees in any of the previously described sequences.

The Department also offers:

**Dual Degree Program:** This program allows students to complete a primary major in one discipline and then complete a second/dual degree in mathematics.

**Minor Degree Program:** This program allows students to minor in mathematics. Students whose major is in the applied sciences or engineering typically choose the Mathematics Minor.

### APPLIED MATHEMATICS CURRICULUM

<b>First Year</b>			HIS 1XX	History Elective	3
BIO 100	Biological Science	3	HUM 210	Humanities	3
BIO 100L	Biological Science Lab	1	HUM 211	Humanities	3
CSC 169	Introduction to Computer Science	3	MTH 331	Algebraic Structures	3
CSC 170	Computer Programming	3	MTH 351	Probability and Statistics I	3
ENG 101	Communication Skills	3	MTH 352	Probability and Statistics II	3
ENG 102	Communication Skills	3	SOC 101	Introduction to Social Sciences	3
HED 100	Personal and Community Health	2	<b>TOTAL</b>		<b>30 cr hrs</b>
MTH 170	Technology in the Math Curriculum	2			
MTH 184	Calculus I	4	<b>Fourth Year</b>		
MTH 251	Calculus II	4		Applied Electives	9
PED 100	Physical Education	1		Cultural Elective	3
PHY 152	General Physics I	3		General Elective	3
PHY 152L	General Physics I Lab	1			
<b>TOTAL</b>		<b>33 cr hrs</b>	MTH 401	Numerical Analysis I	3
			MTH 473	Introduction to Real Analysis	3
<b>Second Year</b>			MTH 496	Mathematics Seminar	2
	Computer Programming Electives (200 Level)	6	MTH 497	Mathematics Seminar	2
	Science Elective (200 Level or above)	3	SCM 285	Principles of Speech	3
ENG 203	Advanced Communication Skills or ENG 303	3	<b>TOTAL</b>		<b>28 cr hrs</b>
MTH 252	Calculus III	4	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
MTH 300	Linear Algebra	3		General Education Requirements	40
MTH 372	Differential Equations	3		Major Requirements	57
MTH 373	Advanced Vector Calculus	3		Restricted Electives	17
PHY 153	General Physics II	3		General Electives	6
PHY 153L	General Physics II Lab	1	<b>TOTAL</b>		<b>120 cr hrs</b>
<b>TOTAL</b>		<b>29 cr hrs</b>	<b>APPLIED ELECTIVES:</b>		
<b>Third Year</b>			Note: Students will take 15 hours of applied electives as indicated.		
	Applied Electives	6	Third Year: MTH 35X, MTH 382, MTH 384, PHY 3XX (6 hours)		
	General Elective	3	Fourth Year: MTH 402, MTH 474, MTH 484, MTH 492, PHY 3XX, PHY 4XX, EEN 3XX, EEN 4XX (9 hours)		

**MATHEMATICS: TEACHER CERTIFICATION CURRICULUM****First Year**

BIO 100/100L Biological Science + Lab	4
CSC 170 Computer Programming I	3
CSC 170L Computer Programming I Lab	1
CSC 2XX Computer Science Elective	3
ENG 101/102 Communication Skills	6
HED 100 Personal and Community Health	2
MTH 170 Technology in the Math Curriculum	2
MTH 184 Calculus I	4
MTH 251 Calculus II	4
PED 100 Physical Education	1
PHY 152/152L General Physics I + Lab	4

**Second Year**

ENG 203 Advanced Communication Skills	3
HIS 1XX History Elective	3
HUM 210/211 Humanities	6
MTH 242 History of Mathematics	3
MTH 252 Calculus III	4
MTH 300 Linear Algebra	3
MTH 372 Differential Equations	3
SED 201 Amer. Schools and Teaching Profession	3
SOC 101 Introduction to Sociology	3
<b>TOTAL</b>	<b>31 cr hrs</b>

**Third Year**

Cultural Elective	3
MTH 311 Modern Geometry	3
MTH 351 Probability and Statistics	3
MTH 331 Algebraic Structures	3
MTH 310 Discrete Mathematics	3
MTH 3XX Mathematics Elective	3
SED 380 Foundations of Math in Sec. Schools	3
SED 384 Teaching of Math in Sec. Schools	3
SED 405 Reading in the Content Areas	3
<b>TOTAL</b>	<b>30 cr hrs</b>

MTH 496,497 Mathematics Seminar	4
SCM 285 Principles of Speech	3
SED 420 Educational Technology	3
SED 486 Educ. Psychology and Behavior Mgt	3
SED 499 Directed Teaching	12
<b>TOTAL</b>	<b>28 cr hrs</b>

**Summary of Graduation Requirements**

General Education Requirements	41
Major Requirements	45
Professional Education Requirements	18
Student Teaching/Field Experiences	12
Restricted Electives	4
<b>Total for Bachelor of Science</b>	<b>120 cr hrs</b>

## Recommended Mathematics Electives:

MTH 323 Number Theory	MTH 401 Numerical Analysis
MTH 352 Prob. and Stat. II	MTH 431 Abstract Algebra
MTH 373 Adv Vector Calc.	MTH 473 Real Analysis
MTH 384 Math Modeling	

Note: Students must pass the PRAXIS I Exam prior to taking 300 & 400 level SED courses. Students who have not passed PRAXIS I must enroll in SED 233, Critical Thinking and Assessment.

**Teacher Licensure Endorsement**

Students wishing to pursue a career in teaching must take the following steps:

1. Follow the curriculum for the liberal arts degree in Mathematics.
2. Use the elective hours for professional courses.
3. See the academic advisor in their major department.
4. See the academic advisor in the Department of Secondary Education and School Leadership in the Bozeman Education Building, Room 200.
5. Take the PRAXIS test and make a passing score. (See the School of Education PRAXIS coordinator, JBB 125.)
6. Take the following professional education courses (18 semester hours) plus student teaching (12 semester hours).

SED 201 American Schools and the Teaching Profession	SED 384 Teaching of Mathematics and Sciences in Secondary Schools
SED 233 Seminar in Assessment and Evaluation	SED 486 Educational Psychology and Behavior Management
SED 380 Foundations of Methods in Secondary Schools	SED 499 Directed Teaching and Seminar

**MATHEMATICS: DUAL DEGREE CURRICULUM****Description:**

This sequence permits students to complete a primary major in one discipline and then to complete requirements for a second, "dual," degree in mathematics. Students could graduate with both degrees simultaneously or, if necessary, graduate with the primary degree in one semester and complete the remaining dual degree requirements within one year. The requirements for the dual degree include 30 semester credit hours of mathematics as outlined below. Students must complete a minimum of 30 credit hours of courses above the total hours required for the primary degree. Thus, the minimum requirement for the two degrees is 150 credit hours.

**Curriculum Outline:**

I. COMPLETE PRIMARY DEGREE REQUIREMENTS (Minimum of 120 Semester Hours)

II. COMPLETE DUAL MATHEMATICS REQUIREMENTS (30 Semester Hours)

MTH 184	Calculus I	4	MTH 351	Probability and Statistics I	3
MTH 251	Calculus II	4	MTH 372	Differential Equations	3
MTH 252	Calculus III	4	MTH 373	Advanced Vector Calculus	3
MTH 300	Linear Algebra	3		(or MTH 310, Discrete Mathematics)	

**Mathematics Electives:**

(Take 3 hrs from: MTH 310, 331, 352, 382, 384; and take 3 hrs from 401, 431, 451, 473, 484.)

III. COMPLETE 30-HOUR MINIMUM REQUIREMENT

Take additional hours, if needed, to assure the completion of a minimum of 30 semester hours above the total hour requirement for the primary degree.

**Total for Dual Degree:** A minimum of 150 Hours**MINOR IN MATHEMATICS**

Minor Requirements (16 hours)

I. Core (10 credit hours)

Course	Credit Hours
MTH 252 Calculus III	4
MTH 351 Probability and Statistics I	3
MTH 372 Differential Equations	3

II. Electives (6 credit hours)

(Choose any 2 courses from MTH 3XX or MTH 4XX)

Some suggestions are:

Course	Credit Hours
MTH 300 Linear Algebra	3
MTH 331 Abstract Algebra	3
MTH 352 Probability and Statistics II	3
MTH 373 Advanced Vector Calculus	3
MTH 382 Introduction to Applied Math	3
MTH 384 Mathematical Modeling	3
MTH 401 Numerical Analysis I	3

**DEPARTMENT OF NURSING****Bennie L. Marshall, Department Head****(757) 823-9013**

The Department of Nursing offers Associate of Science and Bachelor of Science Degree Programs in Nursing, which are fully accredited by the National League for Nursing Accrediting Commission (61 Broadway-33<sup>rd</sup> Floor, New York City, NY, 10006; 800-669-1656) and approved by the Virginia Board of Nursing. The Associate Degree Program prepares students as technical nurses able to assist individuals with self-care deficits associated with common recurring health problems. This program has two tracks: one for individuals without prior nursing experience and one for qualified licensed practical nurses (LPNs). The traditional track can be completed in two academic years and a summer session. Qualified LPNs can complete the nursing courses within two semesters. The Bachelor of Science (BSN) degree is designed as an upper-level program for individuals who have associate degrees or diplomas in nursing, a second degree BSN track for individuals who possess a non-nursing baccalaureate degree, or for qualified licensed practical nurses desiring the BSN. Graduates are prepared as generalists in the practice of professional nursing. Upon graduation from the pre-licensure programs, individuals are eligible to take the National Council Licensing Examination (NCLEX-RN) for Registered Nurses.

The Virginia Board of Nursing has the authority to deny, revoke, or suspend a license issued, or to otherwise discipline a licensee upon proof that the licensee has violated any of the provisions of a specified Code of Virginia. Individuals with criminal records may be denied licensure and should contact the Virginia Board of Nursing for further information.

**ASSOCIATE DEGREE PROGRAM****Admission Criteria**

Admission to the Associate Degree Nursing sequence is competitive. Recommendations to the Departmental Admissions Committee are based upon completion of the following minimal criteria:

1. Admission to the Department of Nursing is a dual process that begins with official acceptance to the University. After acceptance by the University, the student must apply and be admitted to the Department of Nursing. The application deadline for Fall admission is March 1.
2. Two units of Mathematics, including one unit of algebra and one unit of general mathematics, and two units of science, including one unit of biology and one unit of chemistry at the high school level or higher. A minimum grade of "C" is required in each course.

A copy of high school and/or college transcript(s) must be mailed with application to the Department of Nursing.

Persons applying who received a GED Certificate must provide proof of having obtained a "C" or better in Biology, Chemistry, and Algebra at the high school or college level. Evidence must be provided prior to admission to the nursing program.

3. Maintenance of a cumulative grade point average of "C" (2.50) or better in high school or college work.

**Associate Degree Program Policies**

Specific policies related to grading, promotion, and retention in the program are delineated in the Student Handbook.

**Criteria for Readmission**

Readmission is competitive and is granted on a space available basis. A nursing student may not continue in the program if he/she fails a total of two nursing courses or fails the same nursing course twice. The final decision to grant readmission to the nursing program rests with the Department Chairperson.

**BACHELOR'S DEGREE PROGRAM****BACCALAUREATE DEGREE PROGRAM POLICIES**

Specific policies related to grading, promotion, and retention in the program are delineated in the Student Handbook.

**Criteria for Readmission**

Readmission is competitive and is granted on a space available basis. A nursing student may not continue in the program if he/she fails a total of two nursing courses or fails the same nursing course twice. The final decision to grant readmission to the nursing program rests with the Department Chairperson.

**UPPER-LEVEL BSN PROGRAM**

Admission to the upper-level B.S. Program in Nursing is competitive and open to all qualified applicants. The minimal admission requirements are:

1. Minimum grade point average of 2.5 in college work.
2. A grade of "C" or better in all previous nursing and science courses.
3. Licensure as a registered nurse in the Commonwealth of Virginia.
4. Receipt of transcript(s) from previously attended college(s) or School of Nursing.
5. Completion of prerequisite courses or credit by examination (CLEP, ACT-PEP).



**PREREQUISITE COURSES**

Mathematics (Math 105)	3	Introductory Sociology	3
Computer Concepts	3	Human Anatomy and Physiology	8
English Composition	6	Microbiology	4
General Psychology	3	Lower-Level Nursing Courses	30
Human Growth and Dev or Child Psyc	3	<b>TOTAL</b>	<b>63 cr hrs</b>

**SECOND DEGREE TRACK BACCALAUREATE PROGRAM****Admission Criteria**

Admission to the B.S.N. Program - Second-degree pathway for college graduates is competitive and open to all qualified applicants. The minimal admission requirements are as follows:

1. Completion of undergraduate or higher degree.
2. Admission to the University by December 1 for summer session, and August 1, for January session.
3. A cumulative grade point average of 2.5 in the applicant's prior degree and 2.0 or "C" in the following courses: Anatomy and Physiology, microbiology and pathophysiology.
4. Receipt of transcript(s) from previously attended college(s).
5. Completion of prerequisite courses or credit by examination (CLEP, ACT-PEP).
6. Two units of math, one of which must be algebra. A minimum grade of "C" (2.0) is required.
7. Persons who have not taken Chemistry in high school or college must take a college chemistry course.

**PREREQUISITE COURSES**

Communication Skills	9	Statistics	3		
Foreign Language	3	Computer Concepts	3	SUBTOTAL FROM GEN. ED.:	57
Humanities/Foreign Languages	6	History	3	TRANS MAJOR CREDITS	15
African-American Perspectives	3	General Psychology	3		
Fundamental Pharmacological Skills	3	Human Growth and Development or		SUBTOTAL FROM GEN. ED.	
Anatomy and Physiology	8	Child Psychology	3	AND MAJOR:	72
Microbiology	4	Sociology	3		
Economics of Amer. Pub Policy	3				

**LPN - BSN: AN ACCELERATED CURRICULAR TRACK FOR L.P.N.'s****Admission Criteria**

Admission into the LPN-BSN track is competitive and open to qualified students. The minimal admission criteria are:

1. Completion of 69 semester hours in prerequisite courses or credit by examination (CLEP, ACT-PEP);
2. Admission to the University by December 1 for summer session and August 1 for January session.
3. A cumulative grade point average of 2.5, and 2.0 in the following courses: Anatomy and Physiology, Microbiology and Pathophysiology;
4. Receipt of transcript(s) from previously attended college(s) and practical nursing program;
5. Current license to practice as a licensed practical (vocational) nurse in the Commonwealth of Virginia;
6. Two units of math, one of which must be algebra. A minimum grade of "C" (2.0) is required.
7. Persons who have not taken Chemistry in high school or college must take a college chemistry course.

**PREREQUISITE COURSES**

Communication Skills	9		
Foreign Language/Humanities	6	General Psychology	6
Computer Concepts	3	Human Growth and Development or	
African-American Perspectives	3	Child Psychology	3
University Life	0	Sociology	3
Pathophysiology	3	History	3
Anatomy and Physiology	8	American Public Policy or Economics	3
Microbiology	4	Statistics	3
<b>TOTAL</b>		<b>57 cr hrs</b>	

**NURSING ASSOCIATE DEGREE CURRICULUM**

First Year			Second Year		
1st Semester			1st Semester		
UNI 101	Introduction to University Life	0	BIO 163	Microbiology for Health Sciences	4
BIO 165	Human Anatomy and Physiology	4	NUR 275	Clinical Nursing II	9
ENG 101	Communication Skills I	3	PSY 228/	Developmental Psychology or	
NUR 150	Fundamental Concepts of Nursing*	4	PSY 220	Child Development	3
NUR 150L	Fundamental Concepts of Nursing Lab	3			
NUR 153	Fundamental Pharmacological Skills	3			
TOTAL		17 cr hrs	Total		16
2nd Semester			2nd Semester		
BIO 166	Human Anatomy and Physiology	4	SOC 110	Intro to Sociology	3
NUR 160	Clinical Nursing I**	3	NUR 272	Contemporary Trends in Nursing Practice	1
NUR 160L	Clinical Nursing I Lab	4	NUR 285	Clinical Nursing III	4
PSY 210	General Psychology	3	NUR 285L	Clinical Nursing III Lab	5
ENG 102	Communication Skills II	3	NUR 287	Seminar	2
TOTAL		17 cr hrs	TOTAL		15 cr hrs
Summer Session			* NUR 150 satisfies requirements for HED 100 and PED 100		
NUR 170	Care of the Individual	3	** NUR 160 satisfies requirements for humanities		
CSC	Computer Literacy	3			
TOTAL		6 cr hrs	SUMMARY OF GRADUATION REQUIREMENTS		
			General Education Requirements		
			Major Requirements		

**LPN TO ADN: AN ASSOCIATE DEGREE TRACK FOR LPNs - Option I Curriculum Track**

(Three Semesters and One Summer Session - 16 Months)

Advanced Placement 16 cr hrs

Spring Semester			NUR 275	Clinical Nursing II	4
UNI 101	Introduction to University Life	0	NUR 275L	Clinical Nursing II Lab	5
BIO 165	Human Anatomy and Physiology	4	PSY 228	Human Growth and Dev or PSY 220	3
ENG 101	Communication Skills I	3	TOTAL 15 cr hrs		
PSY 210	General Psychology	3			
SOC 110	Introduction to Sociology	3	Spring Semester		
CSC 150	Computer Literacy	3	BIO 163	Microbiology for Health Sciences	4
TOTAL		16 cr hrs	NUR 272	Contemporary Trends	1
			NUR 285	Clinical Nursing III	4
			NUR 285L	Clinical Nursing III Lab	5
			NUR 287	Seminar	2
			TOTAL 16 cr hrs		
Summer Session					
BIO 166	Human Anatomy and Physiology	4			
NUR 199	LPN-RN Bridge	3			
TOTAL		7 cr hrs			
			SUMMARY OF GRADUATION REQUIREMENTS		
Fall Semester			General Education Requirements 30		
ENG 102	Communication Skills II	3	Major Requirements 40		
			TOTAL 70 cr hrs		

**LPN TO ADN: AN ASSOCIATE DEGREE TRACK FOR LPNs - Option II Curriculum Track**

(Four Semesters 24 Months)

Advanced Placement 16 cr hrs

Spring Semester			Fall Semester		
UNI 101	Introduction to University Life	0	BIO 163	Microbiology for the Health Sciences	4
BIO 165	Human Anatomy and Physiology	4	NUR 275	Clinical Nursing II	4
CSC 150	Computer Literacy	3	NUR 275L	Clinical Nursing II Lab	5
ENG 101	Communication Skills I	3	TOTAL		13 cr hrs
PSY 210	General Psychology	3			
SOC 110	Introduction to Sociology	3			
TOTAL		16 cr hrs	Spring Semester		
Summer			NUR 272	Contemporary Trends	1
BIO 166	Human Anatomy and Physiology	4	NUR 285	Clinical Nursing III	4
ENG 102	Communication Skills II	3	NUR 285L	Clinical Nursing III Lab	5
PSY 228	Human Growth and Development or PSY 220	3	NUR 287	Seminar	2
NUR 199	LPN-RN Bridge	3	TOTAL		12 cr hrs
TOTAL		13 cr hrs	SUMMARY OF GRADUATION REQUIREMENTS		
			Advance Placement		16
			TOTAL		70 cr hrs

**NURSING UPPER LEVEL BACCALAUREATE PROGRAM**

<b>Junior Year</b>			NUR 418	Conceptual Models for Nursing	3
<b>First Semester</b>				Free Elective ( 300 – 400 Level)	3
Foreign Language/Humanities		3	NUR 461	Nursing Research Dimensions	3
BIO 320	Pathophysiology	3	TOTAL		15 cr hrs
			<b>Second Semester</b>		
PSY 270	Statistics or SOC 355	3	NUR 435	Providing Complex Nursing Systems for Families and Groups	3
SCM 285	Principles of Speech	3	NUR 435L	Providing Complex Nursing Systems for Families and Groups Lab	2
TOTAL		12 cr hrs	NUR 462	Nursing Leadership and Management	3
<b>Second Semester</b>			NUR 470	Seminar on Professional Development	3
African-American Perspective		3	NUR 485	Contemporary Topics in Nursing & Health Care	3
Humanities		3	TOTAL		14 cr hrs
ECN 211	Principles of Economics or POS 230	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
HIS 100	History of Civilization or HIS 101, 102, or 103	3	TOTAL		120 cr hrs
TOTAL		12 cr hrs			
<b>Senior Year</b>			*RNs may take NUR 415 and NUR 321 prior to being admitted to the nursing program. If the RN matriculates in the program, the credits will be applied to the degree.		
<b>First Semester</b>			NUR 321	Multicultural/Bio Ethics	3
NUR 415	Health Assessment*	3			

**NURSING SECOND-DEGREE BACCALAUREATE PROGRAM (Full-Time Day)****Summer Session**

NUR 415	Health Assessment	3
NUR 418	Conceptual Models for Nursing	3
NUR 362L	Essentials of Nursing Lab*	2
NUR 362	Essentials of Nursing*	2
<b>TOTAL</b>		<b>10 cr hrs</b>

**Fall Semester**

NUR 321	Multiculturalism/Bio Ethics	3
NUR 419	Providing Nursing Systems for Individuals and Small Groups*	5
NUR 419L	Providing Nursing Systems for Individuals and Small Groups Lab*	5
NUR 444	Planning Nursing Systems for Adults	3
<b>TOTAL</b>		<b>16 cr hrs</b>

**Spring Semester**

NUR 429	Providing Nursing Systems for Individuals and Large Groups*	3
NUR 429L	Providing Nursing Systems for Individuals and Large Groups Lab*	5
NUR 454	Group Interventions	3
NUR 461	Nursing Research Dimensions	3
NUR 462	Nursing Leadership and Management	3
<b>TOTAL</b>		<b>17 cr hrs</b>

**Summer Session**

NUR 470	Seminar on Professional Development	3
NUR 475	Nursing Process Seminar*	3
<b>TOTAL</b>		<b>6</b>
<b>TOTAL SEMESTER HOURS</b>		<b>49 cr hrs</b>
<b>TOTAL DEGREE HOURS</b>		<b>134 cr hrs</b>

**SECOND-DEGREE BACCALAUREATE PROGRAM EVENINGS AND WEEKENDS****Spring Semester**

NUR 418	Conceptual Models for Nursing	3
NUR 415	Health Assessment	3
NUR 362	Nursing Essentials*	2
NUR 362L	Nursing Essentials Lab*	2
<b>TOTAL</b>		<b>10 cr hrs</b>

**Summer Semester**

NUR 419A	Providing Nursing Systems for Individuals and Small Groups*	2
NUR 419C	Providing Nursing Systems for Individuals and Small Groups Lab*	2
NUR 321	Multiculturalism/Bio Ethics	3
<b>TOTAL</b>		<b>7 cr hrs</b>

**Fall Semester**

NUR 419B	Providing Nursing Systems for Individuals and Small Groups*	3
NUR 419D	Providing Nursing Systems for Individuals and Small Groups Lab*	3
NUR 444	Planning Nursing Systems for Adults*	3
NUR 462	Nursing Research Dimension	3
<b>TOTAL</b>		<b>12 cr hrs</b>

**Spring Semester**

NUR 429A	Providing Nursing Systems for Individuals and Large Groups*	2
NUR 429C	Providing Nursing Systems for Individuals and Large Groups Lab*	3
NUR 454	Group Interventions	3
NUR 462	Nursing Leadership Management	3
<b>TOTAL</b>		<b>11 cr hrs</b>

**Summer Session I**

NUR 429B	Providing Nursing Systems for Individuals and Large Groups*	1
NUR 429D	Providing Nursing Systems for Individuals and Large Groups Lab*	2
NUR 470	Seminar on Professional Development	3
<b>TOTAL</b>		<b>6 cr hrs</b>

**Summer Session II**

NUR 475	Nursing Process Seminar*	3
<b>TOTAL SEMESTER HOURS</b>		<b>49 cr hrs</b>
<b>TOTAL HOURS FOR DEGREE</b>		<b>133 cr hrs</b>

**LPN - BSN CURRICULUM****Summer Session**

NUR 418	Conceptual Models for Nursing	3
NUR 415	Health Assessment	3
NUR 362L	Essentials of Nursing Laboratory*	2
NUR 362	Essentials of Nursing Skills and Related Concepts*	2
<b>TOTAL</b>		<b>10 cr hrs</b>

**Fall Semester**

NUR 321	Multiculturalism/Bio Ethics	3
NUR 419	Providing Nursing Systems for Individuals and Small Groups*	5
NUR 419	Providing Nursing Systems for Individuals and Small Groups Lab*	5
NUR 444	Planning Nursing Systems for Adults*	3
<b>TOTAL</b>		<b>16 cr hrs</b>

**Spring Semester**

NUR 429	Providing Nursing Systems for Individuals and Large Groups*	3
NUR 429L	Providing Nursing Systems for Individuals and Large Groups Lab*	5
NUR 454	Group Interventions	3
NUR 461	Research Dimensions in Nursing	3
NUR 462	Nursing Leadership and Management	3
<b>TOTAL</b>		<b>17 cr hrs</b>

**Summer Session**

NUR 475	Nursing Process Seminar*	3
NUR 470	Seminar in Professional Development	3
<b>TOTAL</b>		<b>6 cr hrs</b>
<b>TOTAL SEMESTER HOURS</b>		<b>49 cr hrs</b>
<b>TOTAL HOURS FOR DEGREE</b>		<b>122 cr hrs</b>

\*Courses are to be taken only by students in the second-degree program. All other courses are taken with students enrolled in the upper-level BSN program.

**DEPARTMENT OF PHYSICS**

**Milton W. Ferguson, Department Head**  
**(757) 823-8909**

The Department of Physics provides the instruction necessary for the understanding of physics and earth science for students in this department and for other departments of the University. The Department also provides the research basis for students wishing to contribute to knowledge in the areas mentioned.

The Department offers the B.S. degree in Physics. Its graduates may enter occupations in industry, government, and education. Many graduates continue their education in graduate or professional schools. Students in other departments may elect to minor in either physics or astronomy.

The Minor in Astronomy is an ideal complementary minor primarily for students majoring in mathematics, engineering or the sciences. All science students are invited to complete the astronomy minor. Students majoring in Biology, Chemistry, Computer Science, Mathematics and Physics are the main target for this minor.

The Department also offers graduate study courses leading to the Master of Science degree in Materials Science. An undergraduate student may also elect to pursue a five-year dual degree: B.S. in Physics and M.S. in Materials Science.

The objectives of the Department are:

1. To develop in students an appreciation of the scientific method and its use in the solution of physical problems.
2. To develop the basic training in physics designed to meet the needs of students in pre-professional fields and professional fields.
3. To develop in students those qualities and abilities necessary for success in industry and advanced degree institutions.
4. To offer sufficient specialized training beyond the generally recognized basic courses to enable a graduate with a bachelor's degree to enter directly into a professional career.

**PHYSICS CURRICULUM****First Year**

UNI 101	Introduction to University Life	0
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 10X	Social Science/History Electives	3
MTH 184	Calculus I	4
MTH 251	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
PHY 160	University Physics I	4
PHY 160L	University Physics Lab I	1
PHY 161	University Physics II	4
PHY 161L	University Physics Lab II	1

**TOTAL****30 cr hrs****Third Year**

CHM 221	General Chemistry I	3
CHM 221L	General Chemistry Lab I	1
CHM 222	General Chemistry II	3
CHM 222L	General Chemistry Lab II	1
PHY 365	Mechanics I	3
PHY 366	Mechanics II	3
PHY 375	Electricity and Magnetism I	3
PHY 380	Quantum Mechanics I	3
PHY 399	Advanced Lab	2
PHY 445	Mathematical Methods for Physical Sciences II	3
SCM 285	Principles of Speech	3
SOC 101	Social Science	3

**TOTAL****31 cr hrs****Second Year**

Second Year		
Cultural Elective		3
Humanities Elective from core		3
Elective (unrestricted)		3
CSC 169	Introduction to Computer Science	3
MTH 252	Calculus III	4
MTH 372	Differential Equations	3
PHY 241	Physics Seminar	1
PHY 260	University Physics III	4
PHY 345	Mathematical Methods for Physical Science I	3
PHY 350	Modern Physics	3
PHY 351	Concepts in Modern Physics	1

**TOTAL****31 cr hrs****Fourth Year**

Elective (Unrestricted)	10
Humanities Elective from core	3
PHY 356 Thermodynamics	3
PHY 468 Optics	3
PHY 475 Electricity and Magnetism II	3
PHY 480 Quantum Mechanics II	3
PHY 498 Senior Project I	1
PHY 499 Senior Project II	2
<b>TOTAL</b>	<b>28 cr hrs</b>

**TOTAL****28 cr hrs****SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements	40
Major Requirements	73
Electives	7
<b>TOTAL</b>	<b>120 cr hrs</b>

**Teacher Licensure Endorsement**

Students wishing to pursue a career in teaching must take the following steps:

1. Follow the curriculum for the B.S. degree in Physics.
2. Use the elective hours for professional courses.
3. See the academic advisor in their major department.

4. See the academic advisor in the Department of Secondary Education and School Leadership in the Bozeman Education Building, Room 200.
5. Take the PRAXIS test and make a passing score. (See the School of Education PRAXIS coordinator, JBB 125.)
6. Take the following professional education courses (18 semester hours) plus student teaching (12 semester hours).

SED 201 American Schools and the Teaching Profession  
 SED 233 Seminar in Assessment and Evaluation  
 SED 380 Foundations of Methods in Secondary Schools  
 SED 420 Educational Technology

SED 486 Educational Psychology and Behavior Management  
 SED 488 School/Community Relations  
 SED 499 Directed Teaching and Seminar

### FIVE-YEAR DUAL DEGREE: B.S. PHYSICS/MS. MATERIALS SCIENCE CURRICULUM

#### First Year

UNI 101	Introduction to University Life	0
CSC 169	Intro. To Computer Science	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	3
HIS 10X	Social Science/History Elective	3
MTH 184	Calculus I	3
MTH 251	Calculus II	3
PED 100	Fundamentals of Fitness for Life	1
PHY 160	University Physics I	4
PHY 160L	University Physics I Lab	1
PHY 161	University Physics II	4
PHY 161L	University Physics II Lab	1
<b>TOTAL</b>		<b>32 cr hrs</b>

#### Second Year

CHM 221	General Chemistry I	3
CHM 221L	General Chemistry I Lab	1
CHM 222	General Chemistry II	3
CHM 222L	General Chemistry II Lab	1
EEN 309	Engineering Electronics	3
ENG 203	Advanced Communication Skills	3
ENG 383	African-American Literature	3
MTH 252	Calculus III	3
MTH 372	Differential Equations	3
PHY 241	Physics Seminar	1
PHY 320	Waves	3
PHY 350	Modern Physics	3
PHY 351	Experimental Concepts in Modern Physics	2
<b>TOTAL</b>		<b>32 cr hrs</b>

#### Third Year

Cultural Elective**	3	
Elective (unrestricted)	1	
Restricted Math Elective*	6	
PHY 365	Mechanics I	3
PHY 375	Electricity and Magnetism I	3
PHY 356	Thermodynamics	3
PHY 366	Mechanics II	3
PHY 380	Quantum Mechanics I	3
PHY 399	Advanced Laboratory	2
SCM 285	Principles of Speech	3
SOC 101	Social Science	3
<b>TOTAL</b>		<b>33 cr hrs</b>

#### Summer

PHY 397	Research (to fulfill elective requirement)	3
<b>TOTAL</b>		<b>3</b>

#### Fourth Year

CHM 545	Math Methods	3
MATS 530	Materials Science	3
MATS 533	Polymers and Composites	3
HUM 210	Humanities or HUM 211	3
PHY 468	Optics	3
PHY 475	Electricity and Magnetism II	3
PHY 480	Quantum Mechanics II	3
PHY 497	Research (to fill elective requirement)	3
PHY 498	Senior Project I	1
PHY 499	Senior Project II	2
PHY 580	Quantum Mechanics for Mat Sci	3
<b>TOTAL</b>		<b>30 cr hrs</b>

\*Restricted Math Elective to be selected from the following:  
 MTH 255, 471, 472, 474, 481, 482, 484, or CHM 345

\*\*Cultural Elective to be selected from the following: FIA 170,  
 MUS 234, HIS 335, HIS 336, HIS 370, HIS 371, HIS 377, POS 315,  
 PSY 340, or SOC 237.

#### Summer

MATS 697	Research	3
<b>TOTAL</b>		<b>3 cr hrs</b>

#### Fifth Year

CHM 573	Advanced Inorganic Chemistry	3
MATS 575	Instrumentation	3
CHM 663	Atomic and Molecular Spectroscopy	3
CHPH 600	Seminar	3
MATS 797	Research	3
MATS 710	Special Topics	3
MATS 799	Thesis Preparation	3
PHY 653	Solid State Physics	3
PHY 675	Electricity/Magnetism	3
<b>TOTAL</b>		<b>27 cr hrs</b>
<b>GRAND TOTAL</b>		<b>160 cr hrs</b>

**MINOR IN PHYSICS****CORE REQUIREMENT**

PHY 160	University Physics I	4
PHY 160L	University Physics I Lab	1
PHY 161	University Physics II	4
<b>TOTAL</b>		<b>9 cr hrs</b>

**UPPER DIVISION COURSES:**

PHY 350	Modern Physics	3
<b>TOTAL</b>		<b>3 cr hrs</b>

**And any two of the following:**

PHY 365	Physical Mechanics I	3
PHY 366	Physical Mechanics II	3
PHY 375	Electricity and Magnetisms I	3
PHY 475	Electricity and Magnetisms II	3
PHY 380	Quantum Mechanics I	3
PHY 480	Quantum Mechanics II	3
<b>TOTAL</b>		<b>18 cr hrs</b>

**MINOR IN ASTRONOMY**

The Minor in Astronomy is an ideal complementary minor primarily for students in two general categories.

- Students currently majoring in engineering or the sciences.
- Students who have taken the introductory Math and Physics courses required of engineering and science majors, but have since changed their majors.

While all science students are invited to complete the astronomy minor, students who are not required to complete an introductory sequence of Physics courses as part of their major, may find scheduling more difficult. Students majoring in Biology, Chemistry, Computer Science, Mathematics and Physics are the main target for this minor.

**Requires a minimum number of 18 credits**

PHY 152	General Physics I	3
PHY 153	General Physics II	3
AST 201	Astronomy	3
<b>TOTAL</b>		<b>9 cr hrs</b>

**And at least three from the following courses:**

AST 301	Methods of Observational Astronomy	3
AST 302	Astrobiology	3
AST 303	Intro. To Astrophysics	3
AST 401	Stellar Astrophysics	3
<b>TOTAL</b>		<b>12 cr hrs</b>

**DEPARTMENT OF TECHNOLOGY**

**Carray Banks, Jr., Department Head**  
**(757) 823-8712**

The Department offers degrees in the following program areas: B.S. degree in Building Construction Technology, Computer Technology and Electronics Technology. A.S. Degree in Architectural Drafting, and a certificate in Industrial Management.

The mission of the Department of Technology is to provide programs and services to prepare graduates for a variety of responsible technological and/or technical management positions in industry, business, government, and educational enterprises. The Department commits to the responsibility of preparing students in quality industrial technology programs for careers in architectural drafting, for careers as CAD operators, estimators, and planning officers.

**ARCHITECTURAL DRAFTING**

The Architectural Drafting Curriculum is designed to provide students with a technical education that will prepare them to work as semi-professionals immediately upon completion of the program. Graduates may fill such typical positions as Architectural Draftsman, Mechanical Draftsman, Civil Draftsman, Technical Representative, Technical Salesperson, or CAD Operator.

### ARCHITECTURAL DRAFTING CURRICULUM A. S. DEGREE

<b>First Year</b>			BCT 262	Methods of Building Construction	3
UNI 101	Introduction to University Life	0	BCT 263	Fundamentals of Surveying	3
BCT 162	Materials of Construction	3	BCT 264	Intermediate Surveying	3
CSC 150	Computer Literacy	3	BCT 265	Architectural Details	3
ENG 101	Communication Skills I	3	BCT 266	Architectural Drafting	3
ENG 102	Communication Skills II	3	IMT 205	Industrial Safety/Management	3
HED 100	Personal and Community Health	2	IMT 244	Indus Specifications and Tech Document	3
HIS 100	History or Civilization	3	PHY 152	General Physics	3
BCT 170	Fund of Masonry	3	PHY 152L	General Physics Lab	1
MTH 151	College Algebra	3	<b>TOTAL</b>		<b>31 cr hrs</b>
MTH 153	College Algebra/Trigonometry	3			
PED 100	Fundamentals of Fitness for Life	1	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
TMD 150	Engineering Graphics	3	General Education Requirements		22
TMD 151	Introduction to CAD	3	Major Requirements		24
<b>TOTAL</b>		<b>33 cr hrs</b>	Other Requirements		18
			<b>TOTAL</b>		<b>64 cr hrs</b>
<b>Second Year</b>					
Elective		3	CED 350, 450 Cooperative Education (Optional 3 cr. hrs. each)		
BCT 260	Building Codes and Specification	3			

### BUILDING CONSTRUCTION TECHNOLOGY

The Building Construction Technology program is designed to provide men and women with current technical/management competencies required for technical and supervisory roles in residential, industrial, civil, and commercial construction industries.

### BUILDING CONSTRUCTION TECHNOLOGY CURRICULUM B.S. DEGREE

First Year			Third Year		
UNI 101	Introduction to University Life	0	BCT 363	Methods of Building Construction II	3
BCT 162	Materials of Construction	3	BCT 364	Steel Structures	3
CSC 150	Computer Literacy	3	BCT 370	Cost Estimates	3
ENG 101	Communication Skills I	3	CHM 119	General Chemistry	3
ENG 102	Communication Skills II	3	CHM 119L	General Chemistry Lab	1
HED 100	Personal and Community Health	2	HIS 335	African-American History or Cultural Elective	3
HIS 100	History of Civilization	3	Humanities Electives		3
IMT 205	Industry Safety and Management	3	IMT 244	Indus Specifications and Tech Document	3
MTH 151	College Algebra	3	MTH 184	Calculus	4
MTH 153	College Algebra and Trigonometry	3	TMD 151	Introduction to CAD	3
PED 100	Fundamentals of Fitness for Life	1	TMD 345	Mechanics II: Study of Materials	3
SOC 101	Introduction to Social Science	3	TMD345L	Mechanics Lab: Property of Materials	1
TMD 150	Engineering Graphics	3			
<b>TOTAL</b>		<b>33 cr hrs</b>	<b>TOTAL</b>		<b>33 cr hrs</b>
<b>Second Year</b>			<b>Fourth Year</b>		
Elective		3	BCT 376	Soil Mechanics	3
BCT 260	Building Codes and Specifications	3	Humanities Electives		3
BCT 262	Methods of Building Construction I	3	BCT 462	Problem Analysis and Planning	3
BCT 263	Fundamentals of Surveying	3	BCT 464	Organization and Supervision of Construction	3
BCT 264	Intermediate Surveying	3	BCT 466	Structural Planning and Design	3
BCT 265	Architectural Details	3	Elective		3
BCT 266	Architectural Drafting	3	IMT 420	Labor and Industrial Relations	3
FNC 281	Legal Environment of Business	3	SCM 285	Principles of Speech	3
PHY 152	General Physics	3	<b>TOTAL</b>		<b>24 cr hrs</b>
PHY 152L	General Physics Lab	1	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
TMD 225	Mechanics I: Statistics	3	General Education Requirements		
ENG 299	Writing Competency Exam	0	Major Requirements		
<b>TOTAL</b>		<b>31 cr hrs</b>	Other Requirements		
CED 350, 450, Cooperative Education (Optional 3 cr. hrs. each)			<b>TOTAL</b>		
			<b>121 cr hrs</b>		



**ELECTRONIC TECHNOLOGY**

The Electronic Technology program is designed to provide graduates with technical-management competencies needed for professional careers in science, technology, education and management. These careers often require a thorough understanding of electronic instrumentation, industrial controls, and communications.

**ELECTRONIC TECHNOLOGY CURRICULUM  
B.S. DEGREE**

<b>First Year</b>			<b>Second Year</b>		
UNI 101	Introduction to University Life	0	ELT 212	Circuit Analysis II	3
CSC 150	Computer Literacy	3	ELT 212L	Circuit Analysis II Lab	1
ELT 111	Circuit Analysis I	3	ELT 213	Electronic Devices I	3
ELT 111	Circuit Analysis I Lab	1	ELT 213L	Electronic Devices I Lab	1
ENG 101	Communication Skills I	3	ELT 310	Digital Electronics	3
			ELT 310L	Digital Electronics Lab	1
ENG 102	Communication Skills II	3	ITM 205	Industrial Safety	3
HED 100	Personal and Community Health	2	MTH 184	Calculus I	4
HIS 100	History of Civilization	3	PHY 152	General Physics	3
MTH 151	College Algebra	3	PHY 152L	General Physics Lab	1
MTH 153	College Algebra and Trig.	3	PHY 153	General Physics	3
PED 100	Fundamentals of Fitness for Life	1	PHY 153L	General Physics Lab	1
TED 170	Society and Technology	3	IMT 244	Indus. Specifications & Tech Documentation	3
SOC 101	Introduction to Social Science	3	ENG 299	Writing Competency Exam	0
<b>TOTAL</b>		<b>31 cr hrs</b>	<b>TOTAL</b>		<b>30 cr hrs</b>
<b>Third Year</b>			<b>Fourth Year</b>		
Restricted Elective		3	Elective		6
CHM 221	General Chemistry	3	Humanities Elective		3
CHM 221L	General Chemistry Lab	1	Humanities Elective		3
CIT 315	Microprocessors	3	ELT 413	Digital Communication	3
CSC 170	Computer Programming I	3	ELT 499	Senior Project	3
APS 350	Scientific Instrumentation	3	HIS 335	African American History or other Cultural Elective.	3
ELT 211	Electronic Instruments & Measurements	3	IMT 410	First-Line Supervision	3
ELT 313	Electronic Devices II	3	IMT 445	Statistical Quality Control	3
ELT 313L	Electronic Devices II Lab	1			
ELT 315	Analog Communication Systems	3	<b>TOTAL</b>		<b>27 cr hrs</b>
SCM 285	Principles of Speech	3			
TMD 151	Introduction to CAD	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
<b>TOTAL</b>		<b>32 cr hrs</b>	General Education Requirements		40
			Major Requirements		36
			Other Requirements		44
			<b>TOTAL</b>		<b>120 cr hrs</b>

**TIDEWATER COMMUNITY COLLEGE  
AND NORFOLK STATE UNIVERSITY ARTICULATION AGREEMENT**

**ELECTRONIC TECHNOLOGY CURRICULUM - LEADING TO THE BACHELOR OF SCIENCE DEGREE**

<b>Third Year</b>			<b>Fourth Year</b>		
CHM 221	General Chemistry	3	Cultural Elective		3
CHM 221L	General Chemistry Lab	1	Humanities Elective		3
CSC 170	Computer Programming I	3	Restructured Elective		3
ELT 211	Electronic Instruments and Measurements	3	APS 350	Scientific Instrumentation	3
ELT 313	Industrial Electronics	3	CIT 315	Microprocessors	3
ELT 313L	Industrial Electronics Lab	1	ELT 413	Digital Communication	3
ELT 315	Analog Communication Systems	3	ELT 499	Senior Project	3
IMT 205	Industrial Safety and Management	3	IMT 410	First-Line Supervision	3
IMT 244	Indus. Specifications & Technical Doc	3	IMT 445	Statistical Quality Control	3
HED 100	Personal & Community Health	2	<b>TOTAL</b>		<b>27 cr hrs</b>
SCM 285	Principles of Speech	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
TMD 151	Introduction to CAD	3	General Education Requirements		12
<b>TOTAL</b>		<b>31 cr hrs</b>	Major Requirements		37
			Other Requirements		9
			<b>TOTAL</b>		<b>58 cr hrs</b>

## COMPUTER TECHNOLOGY

The Computer Technology program is designed to provide students with technical management oriented competencies related to electronics and computer hardware-software applications and aspects of industrial management and human relations to cope effectively with industrial problems.

### COMPUTER TECHNOLOGY CURRICULUM B.S. DEGREE

First Year			Second Year		
UNI 101	Introduction to University Life	0	CIT 204	Digital Logic	3
CSC 150	Computer Literacy	3	CIT 204L	Digital Logic Lab	1
CSC 169	Intro to Computer Science	3	PHY 153	General Physics	3
ELT 111	Circuit Analysis I	3	PHY 153L	General Physics Lab	1
ELT 111L	Circuit Analysis I Lab	1	IMT 244	Indus. Specifications & Tech Doc.	3
ENG 101	Communication Skills I	3	ELT 212	Circuit Analysis II	3
ENG 102	Communication Skills II	3	ELT 212L	Circuit Analysis II Lab	1
HED 100	Personal and Community Health	2	ELT 213	Electronic Devices I	3
MTH 151	College Algebra	3	ELT 213L	Electronic Devices I Lab	1
MTH 153	College Algebra and Trigonometry	3	IMT 205	Industrial Safety and Management	3
PED 100	Fundamentals of Fitness for Life	1	PHY 152	General Physics	3
TED 170	Technology and Society	3	PHY 152L	General Physics Lab	1
HIS 100	History Elective	3	MTH 184	Calculus I	4
SOC 101	Introduction to Sociology	3	ENG 299	Writing Competency Exam	0
<b>TOTAL</b>		<b>34 cr hrs</b>	<b>TOTAL</b>		<b>30 cr hrs</b>
Third Year			Fourth Year		
CIT 305	Computer Organization	3	Elective		3
CIT 305L	Computer Organization Lab	1	CIT 432	Computer Interfaces	3
CIT 304	Digital Systems Design	3	CIT 434	Computer Networks, Technology	3
CIT 304L	Digital Systems Design Lab	1	CIT 499	Senior Project/Seminar	3
CIT 315	Microprocessors	3	HIS 335	African American History	3
CSC 160	Visual Basic	3	HUM 211	Humanities Elective	3
ELT 315	Analog Communications Systems	3	HUM 210	Humanities Elective	3
Elective		3	IMT 410	First Line Supervision and Foremanship	3
CSC 170	Computer Programming I	3	IMT 445	Statistical Quality Control	3
TMD 151	Introduction to CAD	3	<b>TOTAL</b>		<b>27 cr hrs</b>
SCM 285	Principles of Speech	3			
<b>TOTAL</b>		<b>29 cr hrs</b>	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
<b>CED 350, 450, Cooperative Education Optional 3 cr hrs. each</b>			General Education Requirements		40
			Major Requirements		56
			Other Requirements		24
			<b>TOTAL</b>		<b>120 cr hrs</b>

## SPECIAL ACADEMIC PROGRAMS

### DOZORETZ NATIONAL INSTITUTE FOR MINORITIES IN APPLIED SCIENCES (757) 823-2511

The Dozoretz National Institute for Mathematics and Applied Sciences (DNIMAS) was established in December 1985. Its goal is to address the severe shortage of minority scientists by producing graduates who are capable of successfully completing graduate studies in the basic and applied sciences, and of entering occupations in industry, government, and education. Graduates of the Institute will also be capable of entering medical or other professional schools. Successful completion of the DNIMAS program results in a Bachelor of Science in Biology, a Bachelor of Science in Chemistry, a Bachelor of Science in Computer Science, a Bachelor of Science in Mathematics, or a Bachelor of Science in Physics.

The DNIMAS program is unique. All of its students are supported by full, four-year scholarship/grant aid. It represents a major commitment by Norfolk State University to provide the best possible education in the sciences for highly qualified and motivated students. The program features a three week, pre-matriculation summer session, intensive science curricula, reserved microcomputer labs available for student use, research internships, field trips, projects, career counseling, and seminars.

## ADMISSION

Students are admitted to the DNIMAS Program from high school for the fall semester of each academic year. Applications are accepted for early decision on or before November 30 of the preceding year. The deadline for applications for regular admission is January 31. Applications to the DNIMAS program may be obtained by writing or calling:

Director of DNIMAS  
Norfolk State University  
700 Park Avenue  
Norfolk, VA 23504

Students in the DNIMAS program may matriculate in one of the following curricula. For details on these curricula and course descriptions, see the departmental descriptions in this catalog.

### BIOLOGY (DNIMAS)

#### First Year

APS 110	Applied Sciences seminar	0
APS 111	Applied Sciences seminar	0
BIO 110H	General Biology	4
BIO 160H	General Zoology	4
CHM 223A	General Chemistry I	4
CHM 221L	General Chemistry I Lab	1
CHM 224A	General Chemistry II	4
CHM 222L	General Chemistry II Lab	1
ENG 101H	Communication Skills I	3
ENG 102H	Communication Skills II	3
MTH 184H	Analytic Geometry/Calculus	4
MTH 251H	Analytic Geometry/Calculus	4
PED 100	Fundamentals of Fitness for Life	1

#### TOTAL

33 cr hrs

#### Second Year

Social Science Elective	
APS 210	Applied Science Seminar
APS 211	Applied Science Seminar
BIO 161	General Botany
BIO 278	Cell Biology
BIO 310	General Microbiology
CHM 321	Organic Chemistry I
CHM 321L	Organic Chemistry I Lab
CHM 322	Organic Chemistry II
CHM 322L	Organic Chemistry II Lab
CSC 169	Introduction to Computer Science
HED 100	Personal & Community Health
SCM 285H	Principles of Speech

#### TOTAL

33 cr hrs

#### Third Year

APS 310	Applied Sciences seminar	0
APS 311	Applied Sciences seminar	0
BIO 270	Comparative Anatomy or BIO 263	4
	Biology Elective	4
BIO 362	Histology and Micro Technique	4
CHM 431	General Biochemistry I	3
CHM 431L	General Biochemistry I Lab	2
CHM 432	General Biochemistry II	3
CHM 432L	General Biochemistry II Lab	2
CSC 200	Advanced Computer Concepts	3
PHY 250A	University Physics	4
PHY 250L	University Physics Lab	1
PHY 251A	University Physics	3
PHY 251L	University Physics Lab	1

#### TOTAL

34 cr hrs

#### Fourth Year

ENG 203/30	Advanced Communication Skills	3
	Biology Elective	4
	Humanities Elective/MUS 301*	3
APS 410	Applied Sciences seminar	0
BIO 351	Principles of Genetics	4
BIO 364	Seminar/Colloquium	1
BIO 459	General Physiology	4
BIO 474	Molecular Biology	3
BIO 495	Biostatistics	4
BIO 497	Introduction to Research	2

#### TOTAL

28 cr hrs

#### SUMMARY OF GRADUATION REQUIREMENTS

#### TOTAL

128 cr hrs

\*Select from HUM 210, MUS 301, FIA 301, ENG 207

### BIOLOGY (PRE-PROFESSIONAL - DNIMAS)

**First Year**

APS 110	Applied Sciences seminar	0
APS 111	Applied Sciences seminar	0
BIO 110H	General Biology	4
BIO 160H	General Zoology	4
CHM 223A	General Chemistry I	4
CHM 221L	General Chemistry I Lab	1
CHM 224A	General Chemistry II	4
CHM 222L	General Chemistry II Lab	1
ENG 101H	Communication Skills I	3
ENG 102H	Communication Skills II	3
MTH 184H	Analytic Geometry/Calculus	4
MTH 251H	Analytic Geometry/Calculus	4
PED 100	Fundamentals of Fitness for Life	1
<b>TOTAL</b>		<b>33 cr hrs</b>

**Second Year**

APS 210	Applied Science Seminar	0
APS 211	Applied Science Seminar	0
Social Science Elective		3
BIO 161	General Botany	4
BIO 310	General Microbiology	4
BIO 278	Cell Biology	4
CHM 321	Organic Chemistry I	3
CHM 321L	Organic Chemistry I Lab	2
CHM 322	Organic Chemistry II	3
CHM 322L	Organic Chemistry II Lab	2
CSC 169	Introduction to Computer Science	3
HED 100	Personal & Community Health	2
SCM 285H	Principles of Speech	3
<b>TOTAL</b>		<b>33 cr hrs</b>

**Third Year**

APS 310	Applied Sciences seminar	0
APS 311	Applied Sciences seminar	0
BIO 253	Human Physiology	3
BIO 272	Human Anatomy	4
BIO 351	Principles of Genetics	4
CHM 431	General Biochemistry I	3
CHM 431L	General Biochemistry Lab	2
CHM 432	General Biochemistry II	3
CHM 432L	General Biochemistry Lab	2
PHY 250A	University Physics	4
PHY 250L	University Physics Lab	1
PHY 251A	University Physics	4
PHY 251L	University Physics Lab	1
<b>TOTAL</b>		<b>31 cr hrs</b>

**Fourth Year**

ENG 203/30	Advanced Communication Skills	3
Humanities Elective*		3
APS 410	Applied Sciences seminar	0
BIO 351	Principles of Genetics	4
BIO 362	Hist/Micro technique	4
BIO 364	Seminar/Colloquium	1
Biology Elective		4
BIO 474	(472) Molecular Biology/Cell Structure	3
BIO 495	Biostatistics	3
BIO 497	Introduction to Research	2
CSC 200	Advanced Computer Concepts	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

<b>TOTAL</b>	<b>127 cr hrs</b>
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**CHEMISTRY (DNIMAS)****First Year**

APS 110	Applied Sciences seminar	0
APS 111	Applied Sciences seminar	0
CHM 223A	General Chemistry I	4
CHM 221L	General Chemistry I Lab	1
CHM 224A	General Chemistry II	4
CHM 222L	General Chemistry II Lab	1
CSC 169	Introduction to Computer Science	3
CSC 200	Advanced Computer Concepts	3
ENG 101H	Communication Skills I	3
ENG 102H	Communication Skills II	3
HED 100	Personal & Community Health	2
MTH 184H	Calculus I	4
MTH 251H	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
<b>TOTAL</b>		<b>33 cr hrs</b>

**Second Year**

Humanities or Social Science Elective		3
APS 210	Applied Science Seminar	0
APS 211	Applied Science Seminar	0
CHM 321	Organic Chemistry I	3
CHM 321L	Organic Chemistry I Lab	2
CHM 322	Organic Chemistry II	3
CHM 331	Analytical Chemistry I	3
CHM 331L	Analytical Chemistry I Lab	2
MTH 252	Calculus III	4
PHY 250A	University Physics I	4
PHY 250L	University Physics I Lab	1
PHY 251A	University Physics II	4
PHY 251L	University Physics II Lab	1
SCM 285H	Principles of Speech	3
<b>TOTAL</b>		<b>33 cr hrs</b>

**Third Year**

Restricted Chemistry Elective*		3
APS 310	Applied Sciences seminar	0
APS 311	Applied Sciences seminar	0
APS 350	Scientific Instrumentation	3
BIO 110H	General Biology	4
CHM 323L	Synth. & Anal. in Organic	2
CHM 332	Analytical Chemistry II	3
CHM 332L	Analytical Chemistry II Lab	2
CHM 345	Math & Logic in the Physical Sciences	3
CHM 351	Seminar or CHM 352	1
CHM 361	Physical Chemistry I	3
CHM 362	Physical Chemistry II	3
CHM 363L	Physical Chemistry Lab	2
CHM 397	Research or CHM 398	1
<b>TOTAL</b>		<b>30 cr hrs</b>

**Fourth Year**

Electives		6
Humanities Elective		3
Restricted Chemistry Elective*		3
Social Science Elective		3
APS 410	Applied Sciences seminar	0
CHM 451	Seminar or CHM 452	1
CHM 473	Advanced Inorganic Chemistry	3
CHM 431	Biochemistry	3
CHM 497	Research or 498	1
ENG 203/303	Advanced Communication Skills	3
<b>TOTAL</b>		<b>26 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

<b>TOTAL</b>	<b>122 cr. hrs</b>
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\* Select 6 hrs from: CHM 397, 398, 473L, 431L, 432, 432L, 461L, 462L, 475, 476, 481, 497, 498 (Max of 1 elective hr. of research)

**CHEMISTRY - PRE-MEDICINE (DNIMAS)****First Year**

APS 110	Applied Sciences seminar	0
APS 111	Applied Sciences seminar	0
CHM 223A	General Chemistry I	4
CHM 221L	General Chemistry I Lab	1
CHM 224A	General Chemistry II	4
CHM 222L	General Chemistry II Lab	1
CSC 169	Introduction to Computer Science	3
CSC 200	Advanced Computer Concepts	3
ENG 101H	Communication Skills I	3
ENG 102H	Communication Skills II	3
HED 100	Personal & Community Health	2
MTH 184H	Calculus I	4
MTH 251H	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
<b>TOTAL</b>		<b>33 cr hrs</b>

**Second Year**

APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
CHM 321	Organic Chemistry I	3
CHM 321L	Organic Chemistry I Lab	2
CHM 322	Organic Chemistry II	3
CHM 331	Analytical Chemistry I	3
CHM 331L	Analytical Chemistry I Lab	2
MTH 252	Calculus III	4
PHY 250A	University Physics	4
PHY 250L	University Physics Lab	1
BIO 110H	General Biology	4
PHY 251A	University Physics	4
PHY 251L	University Physics Lab	1
SCM 285H	Principles of Speech	3
<b>TOTAL</b>		<b>34 cr hrs</b>

**Third Year**

Humanities Elective		3
APS 310	Applied Sciences seminar	0
APS 311	Applied Sciences seminar	0
	Biology Elective	4
CHM 323L	Synth. & Anal. in Organic	2
CHM 332	Analytical Chemistry II	3
CHM 332L	Analytical Chemistry II Lab	2
CHM 345	Math & Logic in the Physical Sciences	3
CHM 351	Seminar or CHM 352	1
CHM 361	Physical Chemistry I	3
CHM 362	Physical Chemistry II	3
CHM 363L	Physical Chemistry Lab	2
CHM 397	Research or CHM 398	1
CHM 473	Advanced Inorganic Chemistry	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**Fourth Year**

Biology Electives		3
ENG 203/303Advanced Communication Skills		3
Social Science Elective/Humanities		6
APS 410	Applied Sciences seminar	0
CHM 431	Biochemistry I	3
CHM 431L	Biochemistry I Lab	2
CHM 432	Biochemistry II	3
CHM 432L	Biochemistry II Lab	2
CHM 451	Seminar or CHM 452	1
CHM 497	Research or CHM 498	1
<b>TOTAL</b>		<b>24 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

<b>TOTAL</b>	<b>121 cr hrs</b>
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**COMPUTER SCIENCE (DNIMAS)****First Year**

APS 110	Applied Sciences seminar	0
APS 111	Applied Sciences seminar	0
CHM 223A	General Chemistry I	4
CHM 221L	General Chemistry I Lab	1
CHM 224A	General Chemistry II	4
CHM 222L	General Chemistry II Lab	1
CSC 101	Intro to the Comp Sci Profession	1
CSC 170	Computer Programming I	3
CSC 170L	Computer Programming I Lab	1
ENG 101H	Communication Skills I	3
ENG 102H	Communication Skills II	3
MTH 184H	Calculus I	4
MTH 251H	Calculus II	4
CSC 260	Computer Programming II	3
CSC 260L	Computer Programming II Lab	1
<b>TOTAL</b>		<b>33 cr hrs</b>

**Second Year**

APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
CSC 268	Computer Organization and Assembly Language Programming	3
CSC 292	Unix and C Programming	3
MTH 252H	Calculus III	4
MTH 371	Discrete Mathematical Structures	4
PHY 160A	University Physics I	4
PHY 160L	University Physics I Lab	1
PHY 161A	University Physics II	4
PHY 161L	University Physics II Lab	1
HED 100	Personal and Community Health	2
PED 100	Fundamentals of Fitness for Life	1
<b>TOTAL</b>		<b>27 cr hrs</b>

**Third Year**

Humanities Elective	3	
Foreign Language Elective	3	
Cultural Elective	3	
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
CSC 372	Data Structures	3
CSC 295	Java Applications Programming	3
CSC 361	Survey of Programming Language	3
CSC 380	Software Engineering	3
ENG 303	Technical Writing	3
SCM 285H	Principles of Speech	3
MTH 351	Probability & Statistics I	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**Fourth Year**

CSC or Math Electives (300 level or above)	6	
Social Science Electives	6	
Computer Science Elective (300 level or above)	6	
APS 410	Applied Sciences seminar	0
CSC 430	Data Communication	3
CSC 464	Operating Systems	3
CSC 468	Computer Architecture	3
CSC 498	Computer Science Seminar	1
CSC 499	Computer Science Seminar	2
<b>TOTAL</b>		<b>30 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

<b>TOTAL</b>	<b>120 cr hrs</b>
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**COMPUTER SCIENCE/ENGINEERING (DNIMAS)**

<b>First Year</b>			CSC 361	Survey of Programming Language	3
APS 110	Applied Science Seminar	0	CSC 380	Software Engineering or CSC 360 or CSC 480	3
APS 111	Applied Science Seminar	0	CSC 372	Data Structures	3
CHM 223A/	224A General Chemistry I, II	8	MTH 351	Probability and Statistics	3
CHM 221L/	222L General Chemistry Lab	2	ECN 211	Principles of Economics	3
CSC 169	Introduction to Computer Science	3	EEN 230	Electrical Network Theory	3
CSC 170	Computer Programming I	3	EEN 231	Electrical Network Theory Lab	1
ENG 101H/	102H Communication Skills I, II	6	EEN 309	Engineering Electronics I	3
MTH 184H	Calculus I	4	EEN 311	Engineering Electronics I Lab	1
MTH 251H	Calculus II	4		Cultural Elective	3
HED 100	Personal and Community Health	2	ENG 203/	303 Advanced Communication Skills	3
PED 100	Fund. of Fitness for Life	1	<b>TOTAL</b>		<b>32 cr hrs</b>
<b>TOTAL</b>		<b>33 cr hrs</b>			
<b>Second Year</b>			<b>Fourth Year</b>		
APS 210	Applied Science Seminar	0	APS 410	Applied Science Seminar	0
APS 211	Applied Science Seminar	0	EEN 455	Control Systems Analysis or EEN 452	
CSC 260	Computer Programming II	3		Communications Systems II, or	
CSC 270	Discrete Structures	3		EEN 480	6
CSC 268	Computer Organization and Assembly Language	3	CSC 468	Computer Architecture	3
MTH 252H	Calculus III	4	CSC 470	Artificial Intelligence or	
MTH 300	Linear Algebra	3	CSC 369	Theory of Computation or CSC 496	
PHY 250A/	251A University Physics	8		Compile Construction	3
PHY 250L/	251L University Physics Laboratory	2	CSC 430	Data Communications	3
SCM 285H	Speech/Scientific Communication	3	CSC 498	Computer Science Seminar I	1
Humanities Elective		3	CSC 499	Computer Science Seminar II	2
<b>TOTAL</b>		<b>32 cr hrs</b>	EEN 444	Digital Electronics Logic Design	3
			EEN 445	Digital Electronics Logic Design	1
				Restricted Business or Economics Elective	
				(ACC 201 or ECN 3XX or DSC 3XX or ENT 3XX)	3
				Social Science Elective	3
			<b>TOTAL</b>		<b>28 cr hrs</b>
<b>Third Year</b>			<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
APS 310	Applied Science Seminar	0	<b>TOTAL</b>		<b>125 cr hrs</b>
APS 311	Applied Science Seminar	0			
CSC 295	Java Applications Programming	3			

**APPLIED MATHEMATICS (DNIMAS)**

<b>First Year</b>			<b>Third Year</b>		
APS 110	Applied Sciences seminar	0		Mathematics Elective (MTH 311 or higher)	3
APS 111	Applied Sciences seminar	0		Mathematics Elective (MTH 431 or higher)	3
CHM 223A	General Chemistry I	4		Social Sciences Elective	3
CHM 221L	General Chemistry I Lab	1	APS 310	Applied Sciences seminar	0
CHM 224A	General Chemistry II	4	APS 311	Applied Sciences seminar	0
CHM 222L	General Chemistry I Lab	1	APS 350	Scientific Instrumentation	3
CSC 169	Introduction to Computer Science	3	ENG 303	Professional & Technical Writing	3
CSC 200	Advanced Computer Concepts	3	MTH 351	Probability & Stats. I	3
ENG 101H	Communication Skills I	3	MTH 352	Probability & Stats. II	3
ENG 102H	Communication Skills II	3	MTH 471	Advanced Calculus I	3
HED 100	Personal & Community Health	2	MTH 472	Advanced Calculus II	3
MTH 184H	Calculus I	4	SCM 285H	Speech/Scientific Community	3
MTH 251H	Calculus II	4	<b>TOTAL</b>		<b>30 cr hrs</b>
PED 100	Fundamentals of Fitness for Life	1			
<b>TOTAL</b>		<b>33 cr hrs</b>	<b>Fourth Year</b>		
<b>Second Year</b>				Free Electives	3
	Foreign Language Electives	6		Mathematics Electives	
	Free Electives	3		(MTH 431 or higher)	6
APS 210	Applied Sciences Seminar	0		Social Science Electives	3
APS 211	Applied Sciences Seminar	0	APS 410	Applied Sciences Seminar	0
MTH 252H	Calculus III	4	MTH 382	Introduction to Applied Mathematics	3
MTH 300	Linear Algebra	3	MTH 401	Numerical Analysis I	3
MTH 372	Differential Equations	3	MTH 402	Numerical Analysis II	3
MTH 384	Math Modeling and Simulation	3	MTH 484	Topics in Applied Mathematics	3
PHY 250A	University Physics	4	MTH 496	Mathematics seminar	2
PHY 250L	University Physics Lab	1	MTH 497	Mathematics seminar	2
PHY 251A	University Physics	4	<b>TOTAL</b>		<b>28 cr hrs</b>
PHY 251L	University Physics Lab	1	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
<b>TOTAL</b>		<b>32 cr hrs</b>	<b>TOTAL</b>		<b>123 cr hrs</b>

**ELECTRONICS ENGINEERING (DNIMAS)**

<b>First Year</b>			<b>Third Year</b>		
APS 110	Applied Sciences Seminar	0	Humanities Elective		3
APS 111	Applied Sciences Seminar	0	APS 310	Applied Science Seminar	0
EEN 100	Introductio to Engineering	3	APS 311	Applied Science Seminar	0
EEN 102	Engineering Use of Computers	3	EEN 301	Engineering Electronics I	3
ENG 101H	Communication Skills I	3	EEN 301L	Engineering Electronics I Lab	1
ENG 102H	Communication Skills II	3	EEN 302	Engineering Electronics II	3
MTH 184H	Calculus I	4	EEN 302L	Engineering Electronics II Lab	1
MTH 251H	Calculus II	4	EEN 305	Signals and Systems I	3
PED 100	Fundamentals of Fitness for Life	1	EEN 312	Probability and Statistics	3
PHY 250A	University Physics I	4	EEN 321	Electromagnetic Field Theory	3
PHY 250L	University Physics I Lab	1	EEN 331	Microprocessors	3
PHY 251A	University Physics II	4	EEN 331L	Microprocessors Lab	1
PHY 251L	University Physics II Lab	1	EEN 333	Digital Integrated Circuits	3
<b>TOTAL</b>		<b>31 cr hrs</b>	EEN 333L	Digital Integrated Circuits Lab	1
			EEN 351	Communication Engineering	3
			MTH 300	Linear Algebra	3
			<b>TOTAL</b>		<b>34 cr hrs</b>
<b>Second Year</b>			<b>Fourth Year</b>		
APS 210	Applied Sciences Seminar	0	Cultural Elective		3
APS 211	Applied Sciences Seminar	0	Engineering Elective		3
CHM 223H	General Chemistry	4	Social Sciences Elective		6
CHM 221L	General Chemistry Lab	1	<b>Unrestricted Elective</b>		<b>3</b>
EEN 201	Electronic Network Theory	3	APS 410	Applied Sciences Seminar	0
EEN 201L	Electronic Network Theory Lab	1	EEN 401	Engineering Seminar	1
EEN 202	Electronic Network Theory	3	EEN 411	Engineering Economics	3
EEN 202L	Electronic Network Theory Lab	1	EEN 471	Control Systems Analysis	3
EEN 211	Material Science	3	EEN 498	Senior Project I	3
EEN 231	Digital Logic Design	3	EEN 499	Senior Project II	3
HED 100	Personal and Community Health	2	<b>TOTAL</b>		<b>28 cr hrs</b>
MTH 252	Calculus III	4			
MTH 300	Linear Algebra	3	<b>SUMMARY OF GRADUATION REQUIREMENTS</b>		
MTH 372	Differential Equations	3	<b>TOTAL</b>		<b>127 cr hrs</b>
SCM 285H	Principles of Speech	3			
<b>TOTAL</b>		<b>34 cr hrs</b>			

**OPTICAL ENGINEERING (DNIMAS)****First Year**

APS 110	Applied Sciences seminar	0
APS 111	Applied Sciences seminar	0
EEN 100	Introduction to Engineering	3
EEN 102	Engineering Use of Computers	3
ENG 101H	Communication Skills I	3
ENG 102H	Communication Skills II	3
MTH 184H	Calculus I	4
MTH 251H	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
PHY 250A	University Physics I	4
PHY 250L	University Physics I Lab	1
PHY 251A	University Physics II	4
PHY 251L	University Physics II Lab	1
<b>TOTAL</b>		<b>31 cr hrs</b>

**Third Year**

Humanities Elective		3
APS 310	Applied Science Seminar	0
APS 311	Applied Science Seminar	0
EEN 321	Electromagnetic Field Theory	3
OEN 320	Optical Systems Analysis	3
OEN 340	Lasers and Photonics	3
OEN 340L	Lasers and Photonics Lab	1
OEN 360	Introduction to Optical Materials	3
OEN 380	Introduction to Quantum Mechanics	3
MTH 300	Linear Algebra	3
MTH 373	Advanced Vector Calculus	3
MTH 384	Math Modeling	3
<b>TOTAL</b>		<b>28 cr hrs</b>

**Second Year**

APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
CHM 223H	General Chemistry	4
CHM 221L	General Chemistry Lab	1
EEN 200	Introduction to Electronics	3
EEN 200L	Introduction to Electronics Lab	1
EEN 211	Material Science	3
OEN 200	Geometrics & Instrumentation Optics I	3
OEN 200L	Geometrics & Instrumentation Optics I Lab	1
OEN 201	Geometrics & Instrumentation Optics II	3
PHY 305	Waves	3
HED 100	Personal and Community Health	2
MTH 252	Calculus III	4
MTH 372	Differential Equations	3
SCM 285H	Principles of Speech	3
<b>TOTAL</b>		<b>34 cr hrs</b>

**Fourth Year**

Cultural Elective		3
Social Sciences Elective		6
Humanities Elective		3
Unrestrictive Elective		3
APS 410	Applied Science Seminar	0
EEN 411	Engineering Economics	3
OEN 460	Optical Communications I	3
OEN 460L	Optical Communications I Lab	1
OEN 461	Optical Communications II	3
OEN 490	Senior Seminar	1
OEN 498	Senior Project I	3
OEN 499	Senior Project II	3
<b>TOTAL</b>		<b>32 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

<b>TOTAL</b>	<b>125 cr hrs</b>
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**PHYSICS (DNIMAS)****First Year**

APS 110	Applied Sciences seminar	0
APS 111	Applied Sciences seminar	0
CSC 169	Introduction to Computer Science	3
ENG 101H	Communication Skills I	3
ENG 102H	Communication Skills II	3
MTH 184H	Calculus I	4
MTH 251H	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
PHY 160	University Physics I	4
PHY 160L	University Physics I Lab	1
PHY 161	University Physics II	4
PHY 161L	University Physics II Lab	1
HED 100	Personal and Community Health	2
<b>TOTAL</b>		<b>30 cr hrs</b>

**Third Year**

Social Science Elective		3
APS 310	Applied Sciences seminar	0
APS 311	Applied Sciences seminar	0
CHM 223A	General Chemistry I	4
CHM 221L	General Chemistry I Lab	1
CHM 224A	General Chemistry II	4
CHM 222L	General Chemistry II Lab	1
PHY 365	Mechanics I	3
PHY 366	Mechanics II	3
PHY 375	Electricity & Magnetism I	3
PHY 380	Quantum Mechanics I	3
PHY 399	Advanced Lab	2
PHY 445	Math Methods for Phy Sci II	3
<b>TOTAL</b>		<b>30 cr hrs</b>

**Second Year**

CSC 170	Computer Programming I	3
Humanities Elective		3
APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
Compupter Science Elective		3
MTH 252	Calculus III	4
MTH 372	Differential Equations	3
PHY 241	Physics Seminar	1
PHY 320	Waves	3
PHY 350	Modern Physics	3
PHY 351	Experimental Concepts in Modern Physics	2
PHY 345	Math Methods for Phy Sci I	3
SCM 285H	Speech/Scientific Communication	3
<b>TOTAL</b>		<b>31 cr hrs</b>

**Fourth Year**

Free Electives		5
Humanities Elective		3
Cultural Elective		3
Social Science Elective		3
APS 410	Applied Sciences Seminar	0
APS 411	Applied Sciences Seminar	0
PHY 356	Thermodynamics	3
PHY 468	Optics	3
PHY 475	Electricity & Magnetism II	3
PHY 480	Quantum Mechanics II	3
PHY 498	Senior Project I	1
PHY 499	Senior Project II	2
<b>TOTAL</b>		<b>29 cr hrs</b>

**SUMMARY OF GRADUATION REQUIREMENTS**

<b>TOTAL</b>	<b>120 cr hrs</b>
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**NAVAL SCIENCE****Captain John Brown****Naval Reserve Officer Training Corps****(757) 823-8895**

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 Marine Corps. Participation in the NROTC Program is voluntary, and any student who meets the qualifications is eligible to participate.

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 program is divided into a two-year basic course and a two- year advanced course. The basic course (NSC 101, 102, 201, 202 and accompanying naval laboratory sessions) is normally pursued by NROTC midshipmen during their freshman and sophomore years. While most freshmen begin the basic course during the fall semester, it is possible to enter the program at the beginning of the spring semester. The advanced course (NSC 301, 302, 401, 402 and accompanying naval laboratory sessions) is normally pursued during the junior and senior years. Students seeking a commission in the Marine Corps or Marine Corps Reserve substitute NSC 310, 410, and two approved elective courses for NSC 301, 302, 401, and 402.

Scholarship recipients supplement classroom instruction with at-sea training the summer between their junior and senior years. Similarly, Marine Corps option students attend the six-week Marine Officer Candidate School at Quantico, Virginia, the summer between their junior and senior years.

The two-year NROTC Program is extended to students who do not participate in NROTC during their freshman and sophomore years and who meet the program requirements. Applications to join must be submitted early in the spring semester of the sophomore year. For students accepted into this program, a six-week summer training period at the Naval Science Institute (NSI) in Newport, Rhode Island, following their sophomore year, replaces the Basic course segment of the four-year program. Students successfully completing summer training enroll in the Advanced course for their junior and senior years.

**REQUIREMENTS FOR FORMAL ENROLLMENT IN NROTC**

1. Be a citizen of the United States.
2. Be physically qualified under standards prescribed by the Department of the Navy.
3. Be accepted by the University as a full-time enrolled student.
4. Be at least 17 years of age and not have reached 27 years of age by 30 June of the year you graduate. (Scholarship)
5. Be at least 17 years of age and not have reached 27 years of age by 30 June of the year you graduate. (College Program)
6. Possess a satisfactory record of moral integrity, maintain high standards of performance in academic and extracurricular activities, and manifest potential officer characteristics.
7. Have no moral obligation or personal convictions that prevent you from conscientiously bearing arms and supporting and defending the Constitution of the United States against all enemies, foreign and domestic.

**PARTICIPATION REQUIREMENTS**

Students enrolling in the Basic course of instruction during their freshman year incur no military obligation. Those in the Advanced course must agree to serve a specific active duty period.

All College Program students may compete for three and two-year NROTC scholarships. NROTC scholarships pay for tuition, books, laboratory fees, and other required fees, except room and board. Additionally, scholarship students receive a monthly stipend of \$200 (tax free). For specific information and requirements, contact the Department of Naval Science.

Advanced course students in the College Program (non-scholarship) are entitled to subsistence pay at the rate of \$250 FR SO, \$300 JR and \$350 SR per month for each month of the school year, not to exceed 20 months maximum. While engaged in summer cruise training, all students receive one half of the basic pay of an Ensign.

Nursing program students participate in NROTC drill labs, classes as indicated below, and summer training. Those who complete the nursing program and naval science requirements are commissioned as Ensigns in the Navy Nurse Corps.

<b>First Year</b>			NSC 310	Evolution of Warfare (Marine Option Only)	3
NSC 101*	Naval Orientation	2			
NSC 111	Naval Laboratory I	1	NSC 311	Naval Laboratory V	1
NSC 112	Naval Laboratory II	1	NSC 312	Naval Laboratory VI	1
NSC 102*	Seapower & Maritime Affairs/HIS 380	3	<b>TOTAL</b>		<b>11 cr hrs</b>
<b>TOTAL</b>		<b>7 cr hrs</b>			
<b>Second Year</b>			<b>Fourth Year</b>		
NSC 201	Naval Ship Systems I (Engineering)	3	NSC 401*	Leadership & Management	3
NSC 202	Naval Ship Systems II (Weapons)	3	NSC 402*	Leadership and Ethics	3
NSC 211	Naval Laboratory III	1	NSC 410	Amphibious Warfare (Marine Option Only)	3
NSC 212	Naval Laboratory IV	1	NSC 411	Naval Laboratory VII	1
<b>TOTAL</b>		<b>8 cr hrs</b>	NSC 412	Naval Laboratory VIII	1
			<b>TOTAL</b>		<b>11 cr hrs</b>
<b>Third Year</b>					
NSC 301	Navigation and Naval Operations I	3			
NSC 302	Navigation and Naval Operations II	3			

This Department does not offer a major course program.  
 \*Indicates courses required for NROTC nursing college program  
 and scholarship students.

## THE ETHELYN R. STRONG SCHOOL OF SOCIAL WORK

Marvin D. Feit, Dean

Margaret D. Kerekes, Assistant Dean

(757) 823-8668

The Ethelyn R. Strong School of Social Work provides social work education through its Baccalaureate Social Work (BSW) Program, Master of Social Work (MSW) Program, Doctoral (Ph.D.) Program, and continuing education programs.

The School's mission is to provide social work education programs which prepare students with competence to develop and deliver services that strengthen and/or empower individuals, families, groups, organizations, and communities. The School and its program emphasize the values of social justice, social responsibility and respect for human rights, dignity and diversity. The School is especially committed to address the strengths and challenges for an ethnically and culturally diverse client population in an evolving global community.

The focus at the BSW level is on the preparation of all students for a generalist approach to the first level of professional practice. Beginning level practitioners with a generalist perspective and knowledge of social systems recognize that the target for change may not only be the individual, but may be one or more of the social systems that comprise the individual's environment.

## ACCREDITATION

The School of Social Work is accredited by the Council on Social Work Education which accredits programs at the BSW and MSW levels.

## ORGANIZATION OF THE SCHOOL

The School is administered by the Dean. The Assistant Dean is responsible for administrative matters. The BSW Program Director is responsible for the BSW Program. The MSW Program Director is responsible for the MSW Program Curriculum. The Director of the Ph.D. Program is responsible for the Ph.D. Program.

## DEGREES OFFERED

BSW, MSW, and Ph.D.

## OFF CAMPUS SITE

### COMMUNITY AND OUTREACH SERVICES (FORMERLY KNOWN AS BRAMBLETON COMMUNITY OUTREACH CENTER)

(757) 823-8743

The Community and Outreach Center provides educational, recreational, social and health needs of students and residents in the adjacent neighborhoods. It is the operational center for the University's Community Outreach Program. University resources are used to supplement, improve and increase the effectiveness of services normally provided by community constituents. The Community and Outreach Services Program is administratively responsible to the Ethelyn R. Strong School of Social Work. The Center serves children, families, adults and seniors with programs which include technology training, curriculum, recreation, family management and counseling, health maintenance, educational support, volunteer service, internships and community services.

## ADMISSION REQUIREMENTS

BSW applicants must meet University requirements for admission. After successfully completing the first two years of pre-social work course requirements, students may apply to the Professional Program for the BSW degree. This is the official application process for admission to the professional phase of the Social Work Program. Professional Program requirements are:

1. Student must have completed the first two years of basic core requirements and pre-social work requirements. Student must have a minimum cumulative grade point average of 2.0 on the 4.0 scale (an overall average of C or better).
2. Student must complete and submit all Professional Program application materials to the Director of the Baccalaureate Social Work Program.
3. Continued matriculation at the professional level of the Baccalaureate Program requires that the student:
  - a) Maintain an overall GPA of 2.0 or better.
  - b) Maintain an average of 2.5 GPA in major courses.
  - c) Must have earned a grade of C or better in designated courses as enumerated in the Social Work curriculum.
  - d) Complete degree requirements in accordance with the University Catalog and School of Social Work Field Manual.

### GENERAL EDUCATION REQUIREMENTS

The School follows University requirements for the general education core of 40 hours.

### ASSESSMENT REQUIREMENT

Social Work majors are required to complete the competency based assessment requirements, as set forth by the Social Work Program and the University. Also, students are required to meet state competency mandates.

### BACCALAUREATE SOCIAL WORK

**Carrie R. Waites, Baccalaureate Program Director**  
(757) 823-8122

The Baccalaureate Social Work (BSW) Program comprises two phases: Pre-Social Work Education and Professional Social Work Education. The professional social work phase begins in the junior year and combines academic course work and field practicum. The baccalaureate social work (BSW) degree is conferred on undergraduates who complete all of the academic requirements of the program and of Norfolk State University. This degree is recognized as the first professional level of social work practice. Certain criteria are, therefore, established for admission to and continued matriculation in the professional program.

### BSW PROGRAM MISSION

The Baccalaureate Social Work Program develops students capable of delivering social work services at the first professional level of practice using a generalist approach. The program emphasizes social justice and responsibility, and respect for human rights, dignity, and diversity.

### GOALS

The goals of the BSW Program are:

1. To prepare the student for employment as a beginning professional social work practitioner utilizing a generalist approach.
2. To prepare student to work differentially with diverse populations with a special commitment to the affirmation of the unique characteristics and needs of populations.
3. To teach students to competently develop and deliver direct services that strengthen and/or empower individuals, families, groups, organizations, and communities.
4. To provide students with a foundation of values and ethics which guide professional practice, and enhance life long professional development.

### SOCIAL WORK CURRICULUM

#### PRE SOCIAL WORK REQUIREMENTS

First Year			Second Year		
FRS 100	Freshman Seminar	0	SWK 200	Introduction to Social Work	3
PED 100	Fundamentals of Fitness for Life	1	HUM 210	Humanities**	3
HED 100	Personal and Community Health	2	HUM 211	Humanities**	3
ENG 101	Communication Skills I***	3	XXX XXX	Restricted Elective (Natural Science) *****	3
ENG 102	Communication Skills II***	3	ECN 211	Principles of Economics	3
BIO 105/105L	or BIO 165/165L	4	SWK 220	Human Behavior & Social Environment I	3
MTH 105	Intermediate Algebra	3	PSY 280	Abnormal Psychology***	3
CSC 150	Computer Literacy***	3	POS 231	American State & Local Government***	3
PSY 210	Introduction to Psychology***	3	SCM 285	Principles of Speech	3
SOC 110	or SOC 101 ***	3	SWK 207	Social Welfare Policies & Services I	3
HIS 100	or HIS 101 HIS 102, or HIS 103	3	<b>TOTAL</b>		<b>30 cr hrs</b>
Restrictive Elective *		2			
<b>TOTAL</b>		<b>30 cr hrs</b>			

**PROFESSIONAL SOCIAL WORK REQUIREMENTS****Third Year**

Cultural Perspective \*\*\*\*

SWK 309 Human Behavior and Social Environment II

SWK 312 Introduction to Generalist Practice

SWK 300 Social Welfare Policy and Services II

SWK 313 Generalist Practice: Individuals  
& Families

SWK 319 Human Behavior and Social Environment III

SOC 331 Social Psychology

SOC 344 Methods of Social Research\*\*\*

SOC 355 Elementary Social Statistics\*\*\*

SWK XXX Social Work Elective

**Total**

3

3

3

3

3

3

3

3

3

3

**30**

SWK 498B BSW Field Practicum Orientation

**TOTAL**\*Logic, Philosophy, Problem Solving Cluster (i.e. LOG 210,  
Logic: Critical Thinking)\*\*FIA 201, Basic Art Appreciation or MUS 301, Music  
Appreciation\*\*\*Minimum grade of C required in all Social Work courses  
and those with \*\*\* beside them.\*\*\*\*Cultural Perspective (Select one) - HIS 335, HIS 336  
HIS 371, PSY 340, SOC 237**0****30 cr hrs****Fourth Year**

Optional Electives

Social Work Electives

Generalist Practice: Groups, Organizations  
and Communities

SWK 318 Generalist Practice: Evaluation

SWK 416 Practicum Seminar I

SWK 490 Practicum Seminar II

SWK 491 Practicum in Social Work I

SWK 495 Practicum in Social Work II

SWK 496 BSW Field Practicum Orientation

6

6

3

3

1

1

5

5

0

\*\*\*\*\*Restricted Elective (Natural Sciences) - CHM 100,  
PHY 100, SCI 100, Astronomy, Geology, Oceanography,  
Meteorology**SUMMARY OF GRADUATION REQUIREMENTS**

General Education Requirements

Major Requirements

Electives

**TOTAL**

40

72

8

**120 cr hrs**

## COURSE DESCRIPTIONS

Course descriptions are notated with the following abbreviations and can be found on the subsequent pages listed in alphabetical order.

Accounting (ACC)	p. 144	Humanities (HUM)	p. 164
Astronomy (AST)	p. 144	Industrial Education (IED)	p. 164
Biology (BIO)	p. 144-146	Industrial Management Technology (IMT)	p. 164-165
Building Construction/Technology (BCT)	p. 146-147	Interdisciplinary Studies (INT)	p. 165
Business Administration (BUS)	p. 147	Japanese (JPN)	p. 165
Chemistry (CHM)	p. 147-148	Journalism (JRN)	p. 165
Communication Sciences and Disorders (CSD)	p. 148-149	Latin (LAT)	p. 166
Computer Information Technology (CIT)	p. 149	Management (MGT)	p. 166
Computer Science (CSC)	p. 149-151	Management Information Systems (ISM)	p. 166
Cooperative Education (CED)	p. 151	Manufacturing Technology (ITM)	p. 166-167
Criminal Justice (CJS)	p. 151	Marketing (MKG)	p. 167
Decision Sciences (DSC)	p. 151	Mass Communications (MCM)	p. 167-168
Design Technology - Mechanical (TMD)	p. 151	Mathematics (MTH)	p. 168-169
Economics (ECN)	p. 152	Medical Technology (MDT)	p. 169-170
Electronics Technology (ELT)	p. 152	Military Science (MLS)	p. 170
Elementary Education (EED/ECE)	p. 152-153	Music (MUS)	p. 170-173
Engineering (EEN)	p. 153-154	Naval Science (NSC)	p. 173
English (ENG)	p. 154-155	Nursing (NUR)	p. 173-174
Entrepreneurial Studies (ENT)	p. 155	Optical Engineering (OEN)	p. 174-175
Exercise Science (EXS)	p. 155-156	Physical Education (PED)	p. 175-176
Fashion Design/Merchandising (FDM)	p. 156	Physics (PHY)	p. 176-177
Finance (FNC)	p. 156-157	Political Science (POS)	p. 177-178
Fine Arts (FIA)	p. 157-158	Psychology (PSY)	p. 178-179
Food Science and Nutrition (FSN)	p. 159	Religion (REL)	p. 179
French (FRN)	p. 159-160	Earth Science (SCI)	p. 179
Funeral Services (FNS)	p. 160	Secondary Education and Leadership (SED)	p. 179
General Studies (GST/UNI)	p. 160	Social Work (SWK)	p. 180
Geography (GEO)	p. 160	Sociology (SOC)	p. 180-181
German (GRM)	p. 160	Spanish (SPN)	p. 181-182
Health Education (HED)	p. 161	Special Education (SPE)	p. 182-183
Health Information Management (HIM)	p. 161	Speech Communication (SCM)	p. 183
Health Related Professions (HRP)	p. 161	Swahili (SWA)	p. 183
Health Services Management (HSM)	p. 161-162	Technology Education (TED)	p. 184
History (HIS)	p. 162-163	Theatre (DRM)	p. 184-185
Hotel and Restaurant Management (HRM)	p. 163-164	Urban Planning (URP)	p. 185

## VARIATION CODES

CODE	TITLE
SS	Summer School Only
FO	Fall Semester Only
SO	Spring Semester Only
E	Each Semester including Summer
EE	Each Semester excluding Summer
FS	Fall and Summer Only
SI	Sufficient Student Interest
SU	Spring and Summer Only
O	Offered Every Other Year

## ACCOUNTING - ACC

**201** **Three Credits**  
**PRINCIPLES OF FINANCIAL ACCOUNTING (E)**  
**PREREQUISITE: Sophomore Standing**  
 Study of the fundamental principles and concepts of accounting used in the preparation of financial statements. Emphasis on service and merchandising companies.

**202** **Three Credits**  
**PRINCIPLES OF MANAGERIAL ACCOUNTING (E)**  
**PREREQUISITE: ACC 201**  
 Continuation of ACC 201. Emphasis on accounting for partnerships and corporations, long-term debt, analysis of financial statements, statement of cash flows, and introduction to management accounting.

**301** **Three Credits**  
**INTERMEDIATE ACCOUNTING I (EE)**  
**PREREQUISITE: ACC 202**  
 Rigorous study of the methodology and underlying theory of financial accounting. In-depth analysis of valuation alternatives and their effect on income measurement.

**302** **Three Credits**  
**INTERMEDIATE ACCOUNTING II (EE)**  
**PREREQUISITE: ACC 301**  
 Continuation of ACC 301. In-depth study of the accounting theory and principles surrounding the valuation of accounts in the financial statement.

**315** **Three Credits**  
**FEDERAL INCOME TAX I (E)**  
**PREREQUISITE: ACC 202**  
 Study of the basic concepts of federal income taxation and related reporting requirements. Emphasis on the taxation of individuals.

**316** **Three Credits**  
**FEDERAL INCOME TAX II (SO)**  
**PREREQUISITE: ACC 315**  
 Study of the basic concepts of federal income taxation and related reporting requirements as they apply to partnerships and corporations. Emphasis on the formation, operation, dissolution and reorganization of corporations.

**325** **Three Credits**  
**INTERMEDIATE MANAGERIAL ACCOUNTING (SI)**  
**PREREQUISITES: ACC 202; ISM 284**  
 Focuses on the uses of accounting information in industry, government, and not-for-profit organizations. Topics concentrate on the underlying conceptual framework of management accounting, the role of accounting in management planning and control, and the usefulness of accounting data for evaluating the results of operations and in the various decision making processes. (Not available for credit for accounting majors).

**330** **Three Credits**  
**ACCOUNTING SYSTEMS (EE)**  
**PREREQUISITES: ACC 301; ISM 284**  
 Study of the analysis, design, and implementation of computerized accounting systems. Emphasis on internal control and reporting. Design issues will be explored through an integrated computerized accounting system.

**361** **Three Credits**  
**FINANCIAL STATEMENT ANALYSIS (SO)**  
**PREREQUISITES: FNC 360; ACC 202; ISM 284**  
 Study of the methods and tools of analysis and interpretation of financial statements. Emphasis on financial analysis techniques.

**411** **Three Credits**  
**INTERMEDIATE ACCOUNTING III (FO)**  
**PREREQUISITE: ACC 302**  
 Continuation of ACC 302. Emphasis on the accounting literature and the concepts of accounting theory.

**412** **Three Credits**  
**ADVANCED ACCOUNTING (SI)**  
**PREREQUISITE: ACC 411**  
 Accounting for partnerships, home offices, branches, combinations, and consolidations. Emphasis on foreign currency translation and other aspects of international accounting.

**413** **Three Credits**  
**COST ACCOUNTING (EE)**  
**PREREQUISITES: ACC 202; ISM 284**  
 Study of cost accounting systems, product costing, and inventory valuation. Emphasis on the uses of accounting data as an aid in managerial planning and control.

**414** **Three Credits**  
**AUDITING (EE)**  
**PREREQUISITES: ACC 302; ISM 284**  
 Rigorous study of the examination of financial statements by independent auditors within the framework of generally accepted accounting principles using generally accepted auditing standards.

**418** **Three Credits**  
**GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING (SI)**  
**PREREQUISITE: ACC 302**  
 Theory and application of accounting within governmental and not-for-profit organizations, including fund allocations.

**420** **Three Credits**  
**SELECTED TOPICS IN ACCOUNTING (SI)**  
**PREREQUISITE: ACC 302**  
 Topics covered give additional consideration to selected accounting problems. Current accounting issues are examined.

**455** **Three Credits**  
**THEORY OF ACCOUNTING**  
**PREREQUISITE: ACC 302**  
 Thorough study and review of accounting literature and pronouncements of rule-making organizations. Financial Accounting Standards Board Statements explored in depth. Current issues and developments are also studied.

## ASTRONOMY - AST

**201** **Three Credits**  
**GENERAL ASTRONOMY**  
**PREREQUISITE: PHY 152**  
 General overview of the astronomical sciences at the college physics level. The night sky, the Earth-Moon system, the solar system, the Milky Way galaxy, the system of galaxies and Cosmology. Instructional methods include lectures, multi-media presentations and exercises.

**301** **Three Credits**  
**METHODS IN OBSERVATIONAL ASTRONOMY**  
**PREREQUISITE: AST 201**  
 Observational techniques of optical astronomy. The celestial sphere, naked-eyed observation and celestial system of coordinates. The use of the telescope and its auxiliary equipment. Observation of the sun, moon, planets and deep-sky objects. Astrometry, photometry and spectrography using CCD cameras.

**302** **Three Credits**  
**ASTROBIOLOGY**  
**PREREQUISITE: AST 201**  
 Study of origin and evolution of life on earth, exploration of the solar system, and probability of life in the solar system, in the universe, and communication with extra-terrestrial life.

**303** **Three Credits**  
**INTRODUCTION TO ASTROPHYSICS**  
**PREREQUISITES: PHY 153; AST 201 or equivalents**  
 Overview of physical fundamentals of astrophysics. Introduction to modern physics: special relativity, quantum mechanics, nuclear physics and statistical mechanics. Covers the context of practical application into introductory astrophysics topics. Instructional methods will include lectures, multi-media presentations and exercises.

**401** **Three Credits**  
**STELLAR ASTROPHYSICS**  
**PREREQUISITE: AST 303**  
 Intermediate level study of the physics of stars, the sun, stellar models, origin and evolution, nucleosynthesis, and last stages in stellar evolution. Formulates a simplified computer model of a star.

## BIOLOGY - BIO

**100** **Three Credits**  
**BIOLOGICAL SCIENCE (E)**  
**PREREQUISITES: ENG 101; MTH 103**  
**COREQUISITE: BIO 100L**  
 Study of the general principles and problems of biology, with special emphasis on the human organism, including anatomy, physiology, growth, reproduction, and inheritance. The evolution and diversity among living things are discussed from an ecological perspective.

**100L** **One Credit**  
**BIOLOGICAL SCIENCE LABORATORY (E)**  
**COREQUISITE: BIO 100**

Practical approach to understanding the nature of science. The exercises on cells, tissues, and organ systems are designed to help students understand the human systems.

**105** **Three Credits**  
**HUMAN BIOLOGY (E)**  
**COREQUISITE: BIO 105L**  
 Survey of the structure and function of the human body and the human life cycle with particular focus on reproduction, growth, and development.

**105L** **One Credit**  
**HUMAN BIOLOGY LABORATORY (E)**  
**COREQUISITE: BIO 105**  
 Laboratory includes dissection of preserved animals/structures, models and microscopic observations, slide/videotapes, computer-simulated dissections and experiments, and hands-on experiments.

**110** **Three Credits**  
**GENERAL BIOLOGY (E)**  
**COREQUISITE: BIO 110L or Consent of Chair**  
 Survey of basic concepts and principles with emphasis at the molecular and cellular levels of biological systems. Includes contemporary genetics, metabolism, and organ systems of representative plants and animals.

**110L** **One Credit**  
**GENERAL BIOLOGY LABORATORY (E)**  
**COREQUISITE: BIO 110 or Consent of Chair**  
 Survey of basic concepts and principles with emphasis at the molecular and cellular levels of biological systems. Includes contemporary genetics, metabolism, and organ systems of representative plants and animals.

**160** **Three Credits**  
**GENERAL ZOOLOGY (E)**  
**PREREQUISITE: BIO 110**  
**COREQUISITE: BIO 110L or Consent of Chair**  
 Biological concepts of animal life, including morphology, taxonomy, life histories, reproduction and distribution.

**160L** **One Credit**  
**GENERAL ZOOLOGY LABORATORY (E)**  
**PREREQUISITE: BIO 110**  
**COREQUISITE: BIO 160 or Consent of Chair**  
 Biological concepts of animal life, including morphology, taxonomy, life histories, reproduction and distribution.

**161** **Three Credits**  
**GENERAL BOTANY (E)**  
**PREREQUISITE: BIO 110**  
**COREQUISITE: BIO 161L or Consent of Chair**  
 Introductory study of the basic principles of botany, including comparative studies on morphology, physiology, genetics, ecology, and economic uses of major plants.

**161L** **One Credit**  
**GENERAL BOTANY LABORATORY (E)**  
**PREREQUISITE: BIO 110**  
**COREQUISITE: BIO 161 or Consent of Chair**  
 Introductory study of the basic principles of botany, including comparative studies on morphology, physiology, genetics, ecology, and economic uses of major plants.

**163** **Three Credits**  
**MICROBIOLOGY FOR THE HEALTH SCIENCES (E)**  
**COREQUISITE: BIO 163L or Consent of Chair**  
 General survey of microorganisms that cause human diseases. The mechanisms of body defense and immunity to infectious agents are discussed.

**163L** **One Credit**  
**MICROBIOLOGY FOR THE HEALTH SCIENCES LABORATORY (E)**  
**COREQUISITE: BIO 163 or Consent of Chair**  
 Study of culture methods, microscopic sterilization, and aseptic techniques.

**165, 166** **Three Credits Each**  
**HUMAN ANATOMY AND PHYSIOLOGY (E)**  
**COREQUISITES: BIO 165L, 166L**  
 One-year course consisting of an integrated study of the structure and function of the human body: BIO 165 is a lecture series on cells through the four major tissues, and BIO 166 presents lecture topics on the structure and function of organs and organ systems. (Must be taken in sequence).

**165L, 166L** **One Credit Each**  
**HUMAN ANATOMY AND PHYSIOLOGY LABORATORY (E)**  
**PREREQUISITES: BIO 165; 166 or Concurrent**  
 Emphasis on teaching aids such as computed managed instructions and hands-on experience with animal tissues.

<b>253</b> <b>HUMAN PHYSIOLOGY (E)</b> <b>PREREQUISITE: BIO 272 or Consent of the Instructor</b> Survey of the integration of functions in the human body, noting their structural relationships.	<b>Three Credits</b>	environment with application to current environmental problems.	<b>320</b> <b>PATHOPHYSIOLOGY (E)</b> <b>PREREQUISITES: BIO 165 and 166</b> Introduction to the study of the normal physiology of various systems of the human body and how alterations in structure and function can initiate the onset of disease. Inherent in this course is a study of the adaptive capacity of the human body.
<b>258</b> <b>GENERAL ENTOMOLOGY (SI)</b> <b>PREREQUISITE: BIO 160</b> <b>COREQUISITE: BIO 258L or Consent of Chair</b> Study of the basic morphology, physiology, ecology, and economic importance of insects.	<b>Three Credits</b>	<b>271L</b> <b>ECOLOGY LABORATORY (FO)</b> <b>PREREQUISITES: BIO 160; 161</b> <b>COREQUISITE: BIO 271 or Consent of Chair</b> Composition and distribution of biotic communities, emphasizing interrelationships of organisms and their physical environment with application to current environmental problems.	<b>330</b> <b>REVIEW OF HUMAN ANATOMY, PHYSIOLOGY AND MICROBIOLOGY FOR HEALTH PROFESSIONS (SI)</b> <b>PREREQUISITES: BIO 166 and 163</b> <b>COREQUISITE: BIO 330L or Consent of Chair</b> Study of the structure and function of the human body.
<b>258L</b> <b>GENERAL ENTOMOLOGY LABORATORY (SI)</b> <b>PREREQUISITE: BIO 160</b> <b>COREQUISITE: BIO 258 or Consent of Chair</b> Demonstrates the basic morphology, physiology, ecology, and economic importance of insects.	<b>One Credit</b>	<b>272</b> <b>HUMAN ANATOMY (EE)</b> <b>PREREQUISITE: BIO 110</b> <b>COREQUISITE: BIO 272L or Consent of Chair</b> Study of the basic structure of organs and organ systems of the body.	<b>330L</b> <b>REVIEW OF HUMAN ANATOMY, PHYSIOLOGY AND MICROBIOLOGY FOR HEALTH PROFESSIONS LABORATORY (SI)</b> <b>PREREQUISITES: BIO 166 and 163</b> <b>COREQUISITE: BIO 330 or Consent of Chair</b> Current practices of sterilization, aseptic techniques, cultural methods, principles of host defense mechanisms, and infectious disease processes.
<b>260</b> <b>TAXONOMY OF THE VASCULAR PLANTS (SI)</b> <b>PREREQUISITE: BIO 161</b> <b>COREQUISITE: BIO 260L or Consent of Chair</b> Study of nomenclature, identification, and phylogenetic relationship of vascular plants. Field trip requirements: development of a project for preserving and identifying vascular plants.	<b>Three Credits</b>	<b>272L</b> <b>HUMAN ANATOMY LABORATORY (EE)</b> <b>PREREQUISITE: BIO 110</b> <b>COREQUISITE: BIO 272 or Consent of Chair</b> Study of the basic structure of organs and organ systems of the body.	<b>350</b> <b>PARASITOLOGY (SO)</b> <b>PREREQUISITE: BIO 110</b> <b>COREQUISITE: BIO 350L or Consent of Chair</b> Study of symbiotic relationships between representatives that are dependent upon a symbiont and the clinical and pathological implications inherent in such a relationship.
<b>260L</b> <b>TAXONOMY OF THE VASCULAR PLANTS LABORATORY (SI)</b> <b>PREREQUISITE: BIO 161</b> <b>COREQUISITE: BIO 260 or Consent of Chair</b> Identification of local plants and plant preservation techniques.	<b>One Credit</b>	<b>274</b> <b>PLANT MORPHOLOGY (SI)</b> <b>PREREQUISITE: BIO 161</b> <b>COREQUISITE: BIO 274L or Consent of Chair</b> Comparative survey of typical representatives of the plant kingdom with description of form and structure, reproductive processes (normal life cycles), and phylogenetic relationships of the principal plant groups.	<b>350L</b> <b>PARASITOLOGY LABORATORY (SO)</b> <b>PREREQUISITE: BIO 110</b> <b>COREQUISITE: BIO 350 or Consent of Chair</b> Inquiry-based application of the clinical and pathological implications of inherent relationships established between symbionts.
<b>262</b> <b>NATURAL HISTORY (SI)</b> <b>COREQUISITE: BIO 262L or Consent of Chair</b> Survey of the principal plant and animal kingdom representatives with emphasis on recognition of some common types, their ecological association, classification, and distribution. (Requirements: field trips, a paper, and development of a project on identification of organisms collected).	<b>One Credit</b>	<b>274L</b> <b>PLANT MORPHOLOGY LABORATORY (SI)</b> <b>PREREQUISITE: BIO 161</b> <b>COREQUISITE: BIO 274 or Consent of Chair</b> Laboratory focuses on comparative surveys of typical representatives of the plant kingdom with description of form and structure, reproductive processes (normal life cycles), and phylogenetic relationships of the principal plant groups.	<b>351</b> <b>PRINCIPLES OF GENETICS (EE)</b> <b>PREREQUISITES: BIO 160 and 161; CHM 222</b> <b>COREQUISITE: BIO 351L or Consent of Chair</b> Introductory course dealing with the principles of heredity and variation in plants and animals, including man.
<b>262L</b> <b>NATURAL HISTORY LABORATORY (SI)</b> <b>COREQUISITE: BIO 262 or Consent of Chair</b> Survey of the principal plant and animal kingdom representatives with emphasis on recognition of some common types, their ecological association, classification, and distribution. (Requirements: field trips, a paper, and development of a project on identification of organisms collected).	<b>Two Credits</b>	<b>276</b> <b>INVERTEBRATE ZOOLOGY (SI)</b> <b>PREREQUISITE: BIO 160</b> <b>COREQUISITE: BIO 276L or Consent of Chair</b> Development, morphology, comparative anatomy, phylogeny, classification and physiology of invertebrates.	<b>351L</b> <b>PRINCIPLES OF GENETICS LABORATORY (EE)</b> <b>PREREQUISITES: BIO 160 and 161; CHM 222</b> <b>COREQUISITE: BIO 351 or Consent of Chair</b> Introductory genetic labs are designed to provide exercises that deal with the principles of heredity and variation in plants and animals, including man.
<b>263</b> <b>VERTEBRATE EMBRYOLOGY (SO)</b> <b>PREREQUISITE: BIO 160</b> <b>COREQUISITE: BIO 263L or Consent of Chair</b> Study of the mechanics of development, including the origin of gametes, fertilization, organogenesis, and morphogenesis of early development of the frog, chick, pig, and man.	<b>Three Credits</b>	<b>278</b> <b>CELL BIOLOGY (SU)</b> <b>PREREQUISITES: BIO 160; 161; CHM 222; 222L</b> <b>COREQUISITE: BIO 278L or Consent of Chair</b> Study of intracellular mechanisms and the influence of such processes on the cell and its extracellular environment.	<b>362</b> <b>HISTOLOGY AND MICRO TECHNIQUE (SI)</b> <b>PREREQUISITES: BIO 160 and 161</b> <b>COREQUISITE: BIO 362L or Consent of Instructor</b> Study of the structure and properties of cells, the cellular relationships to the main type of tissues and histology of organs; the principles and methods of preparation of plant and animal tissues; and some techniques in histochemistry.
<b>263L</b> <b>VERTEBRATE EMBRYOLOGY LABORATORY (SO)</b> <b>PREREQUISITE: BIO 160</b> <b>COREQUISITE: BIO 263 or Consent of Chair</b> Laboratory study of the mechanics of development, including the origin of gametes, fertilization, organogenesis, and morphogenesis of early development of the frog, chick, pig, and man.	<b>One Credit</b>	<b>278L</b> <b>CELL BIOLOGY LABORATORY (SU)</b> <b>PREREQUISITES: BIO 160; 161; CHM 221/ 221L; CHM 222/ 222L</b> <b>COREQUISITE: BIO 278 or Consent of Chair</b> Study of intracellular mechanisms and the influence of such processes on the cell and its extracellular environment.	<b>362L</b> <b>HISTOLOGY AND MICRO TECHNIQUE LABORATORY (SI)</b> <b>PREREQUISITES: BIO 160 and 161</b> <b>COREQUISITE: BIO 362 or Consent of Instructor</b> Study of the structure and properties of cells; the cellular relationships to the main type of tissues and histology of organs; the principles and methods of preparation of plant and animal tissues; and some techniques in histochemistry.
<b>270</b> <b>COMPARATIVE ANATOMY OF VERTEBRATES (FO)</b> <b>PREREQUISITE: BIO 160</b> <b>COREQUISITE: BIO 270L or Consent of Chair</b> Study of the classification, morphology, and anatomy of vertebrates, including the functions of their organs and organ systems.	<b>Three Credits</b>	<b>310</b> <b>GENERAL MICROBIOLOGY (E)</b> <b>PREREQUISITES: BIO 160 or BIO 161; CHM 221/ 221L and CHM 222/ 222L</b> <b>COREQUISITE: BIO 310L or Consent of Chair</b> Introduction to the microbes, including bacteria, molds, yeasts, and viruses. Investigation of fundamental concepts of microorganisms, including nutrition, ecology, and physiology; principles of sterilization and methods of control of microorganisms; their economic importance.	<b>364</b> <b>SEMINAR AND COLLOQUIUM IN BIOLOGY (EE)</b> <b>PREREQUISITE: Junior or Senior Standing or Consent of Instructor</b> Consideration of current research and development in biology, including reviews, reports, and discussions of investigations reported in scientific journals.
<b>270L</b> <b>COMPARATIVE ANATOMY OF VERTEBRATES LABORATORY (FO)</b> <b>PREREQUISITE: BIO 160</b> <b>COREQUISITE: BIO 270 or Consent of Chair</b> Study of the classification, morphology, and anatomy of vertebrates, including the functions of their organs and organ systems.	<b>One Credit</b>	<b>310L</b> <b>GENERAL MICROBIOLOGY LABORATORY (E)</b> <b>PREREQUISITES: BIO 160 or 161; CHM 221/ 221L and CHM 222/ 222L</b> <b>COREQUISITE: BIO 310 or Consent of Chair</b> Introduction to the microbes, including bacteria, molds, yeasts, and viruses. Investigation of fundamental concepts of microorganisms, including nutrition, ecology, and physiology; principles of sterilization and methods of control of microorganisms; their economic importance.	<b>400</b> <b>FORENSIC MOLECULAR BIOLOGY (EE)</b> <b>PREREQUISITE: Junior or Senior Standing or Consent of Instructor</b> Designed to provide students with the scientific background and hands-on experience on the molecular aspects of DNA forensics. Protocols and procedures currently used in DNA forensic tests will be performed, including DNA isolation from various sample sources, gel electrophoresis, PCR, STR analysis, and data interpretation. Relevant scientific journals will be consulted and articles discussed.
<b>271</b> <b>ECOLOGY (FO)</b> <b>PREREQUISITES: BIO 160; 161</b> <b>COREQUISITE: BIO 271L or Consent of Chair</b> Composition and distribution of biotic communities, emphasizing interrelationships of organisms and their physical	<b>Three Credits</b>		

<b>400L</b> <b>FORENSIC MOLECULAR BIOLOGY LAB (EE)</b> Experiment of DNA forensic tests on current protocols and procedures, including DNA isolation from various sample sources, gel electrophoresis, PCR, STR analysis, and data interpretation.	<b>One Credit</b>
<b>452</b> <b>BIOLOGICAL INSTRUMENTAL TECHNIQUES (EE)</b> <b>PREREQUISITES:</b> CHM 221/ 221L and CHM 222/ 222L Training and practice in various bio-instrumental techniques, including statistical analysis of data, respirometry, photo microscopy, spectrophotometry, chromatography, electrophoresis, and physiological measurements.	<b>Two Credits</b>
<b>457</b> <b>EVOLUTION (SI)</b> <b>PREREQUISITE:</b> BIO 351 or Consent of Instructor Discussion and lectures on the organic evolution of plants and animals.	<b>Two Credits</b>
<b>459</b> <b>GENERAL PHYSIOLOGY (E)</b> <b>PREREQUISITES:</b> 16 semester hours of Biology and Organic Chemistry <b>COREQUISITE:</b> BIO 459L or Consent of Chair Discusses fundamental principles and properties of physiological processes common to animals.	<b>Three Credits</b>
<b>459L</b> <b>GENERAL PHYSIOLOGY LABORATORY (E)</b> <b>PREREQUISITES:</b> 16 semester hours of Biology and Organic Chemistry <b>COREQUISITE:</b> BIO 459L or Consent of Chair Demonstrates fundamental principles and properties of physiological processes common to animals.	<b>One Credit</b>
<b>461</b> <b>PLANT PHYSIOLOGY (SI)</b> <b>PREREQUISITES:</b> BIO 161; CHM 322, 322L <b>COREQUISITE:</b> BIO 461L or Consent of Instructor Consideration of the physicochemical factors involved in plant growth with special emphasis on synthesis, water economy, transpiration, energy transfers, mineral nutrition, regulation, and the red, far-red reactions of phytochrome of seed plants.	<b>Three Credits</b>
<b>461L</b> <b>PLANT PHYSIOLOGY LABORATORY (SI)</b> <b>PREREQUISITES:</b> BIO 161; CHM 322, 322L <b>COREQUISITE:</b> BIO 461 or Consent of Instructor Consideration of the physicochemical factors involved in plant growth with special emphasis on synthesis, water economy, transpiration, energy transfers, mineral nutrition, regulation, and the red, far-red reactions of phytochrome of seed plants.	<b>One Credit</b>
<b>469</b> <b>BIOCHEMISTRY (SI)</b> <b>PREREQUISITES:</b> CHM 222 or equivalent <b>COREQUISITE:</b> BIO 461 or Consent of Instructor Biochemical analysis of cellular function and consideration of the implications of the properties of cells, including the cell and its organization, protein structure and specificity; biochemistry of lipids, carbohydrates, and nucleic acids; regulation of cell metabolism; cellular basis of hormone cation; and biochemical aspects of synthesis.	<b>Three Credits</b>
<b>469L</b> <b>BIOCHEMISTRY LABORATORY (SI)</b> <b>PREREQUISITE:</b> CHM 222 or equivalent <b>COREQUISITE:</b> BIO 461L or Consent of Instructor Designed to analyze biochemical properties of protein structure and specificity; biochemistry of lipids, carbohydrates, and nucleic acids; regulation of cell metabolism; cellular basis of hormone cation; and biochemical aspects of synthesis.	<b>One Credit</b>
<b>472</b> <b>CELL STRUCTURE AND FUNCTION (SI)</b> <b>PREREQUISITES:</b> BIO 160, 161; CHM 222, 222L Introduction to biochemistry, cellular metabolism, and cellular ultrastructure as they relate to cell function.	<b>Three Credits</b>
<b>474</b> <b>MOLECULAR BIOLOGY (EE)</b> <b>PREREQUISITES:</b> BIO 310; CHM 222 and 222L Semi-quantitative introduction to chemical, physical or molecular aspects of biology. It is believed that through an interdisciplinary approach, science majors in general are given a firm background on which to build, and the course also enables students to acquire a fairly detailed understanding of biological phenomena.	<b>Three Credits</b>
<b>474L</b> <b>MOLECULAR BIOLOGY LABORATORY (EE)</b> <b>PREREQUISITE:</b> Consent of the Instructor Introduction to the basic techniques in Recombinant DNA which encompasses the principles and practical aspects of	<b>Two Credits</b>

molecular techniques through discussions, demonstrations, and hands-on experience, covering isolation of DNA, restriction of endonuclease digestion, gel-electrophoresis, transformation of competent cells, nick translation, southern and northern blots, and DNA sequencing.

<b>480</b> <b>INTRODUCTION TO ENVIRONMENTAL TOXICOLOGY (SO)</b> <b>PREREQUISITES:</b> CHM 322, 322L Multi-disciplinary course designed to focus on the importance of the electric approach to environmental toxicological studies. Examine the sources and types of environmental toxicant, the levels and modes of exposure, and their significant toxic hazard in the work place, the household, and the general environment.	<b>Four Credits</b>
<b>482</b> <b>EPIDEMIOLOGY (FO)</b> <b>PREREQUISITE:</b> BIO 310 Basic principles and methods of Epidemiology and the application to communicable and noncommunicable diseases, community health, and health services research. Reviews observational and experimental study design; methods and data analysis; and various indices of assessing morbidity, mortality, and population dynamics.	<b>Four Credits</b>
<b>487</b> <b>ECOLOGICAL TOXICOLOGY</b> <b>PREREQUISITE:</b> BIO 271 <b>COREQUISITE:</b> BIO 487L or Consent of Chair Study of the commonly used pesticides, their toxicity and implications for man and environment.	<b>Three Credits</b>
<b>487L</b> <b>ECOLOGICAL TOXICOLOGY LABORATORY</b> <b>PREREQUISITE:</b> BIO 271 <b>COREQUISITE:</b> BIO 487 or Consent of Chair Studies the use of pesticides, their toxicity and implications for man and environment.	<b>One Credit</b>
<b>490</b> <b>IMMUNOLOGY OF TOXINS</b> <b>PREREQUISITE:</b> BIO 310 <b>COREQUISITE:</b> BIO 490L or Consent of Chair Introduction to the specific and non-specific host mechanisms of defense as well as the humoral and cellular reactions.	<b>Three Credits</b>
<b>490L</b> <b>IMMUNOLOGY OF TOXINS LABORATORY</b> <b>PREREQUISITE:</b> BIO 310 <b>COREQUISITE:</b> BIO 490 or Consent of Chair Special emphasis on the immune response of animals to infectious agents, microbial toxins, and environmental toxins.	<b>One Credit</b>
<b>492</b> <b>PRINCIPLES OF GENETIC TOXICOLOGY (SI)</b> <b>PREREQUISITES:</b> BIO 351; CHM 322 and 322L General principles of toxicology as they relate to adverse genetic effects of environmental agents. Basic mechanism of action, including the molecular and chemical basis for mutagenic effects. Techniques for the detection and characterization of chemical mutagen will be included in the laboratory demonstrations.	<b>Four Credits</b>
<b>494</b> <b>MEDICAL ENTOMOLOGY (SI)</b> <b>PREREQUISITE:</b> BIO 160 <b>COREQUISITE:</b> BIO 494L or Consent of Chair Study of the taxonomy, morphology, behavior, and relationships of arthropods of medical importance, and arthropod-borne human diseases.	<b>Three Credits</b>
<b>494L</b> <b>MEDICAL ENTOMOLOGY LABORATORY (SI)</b> <b>PREREQUISITE:</b> BIO 160 <b>COREQUISITE:</b> BIO 494 or Consent of Chair Emphasis on the epidemiological aspects of the disease and the biological, chemical, and integrated methods of control of the arthropods.	<b>One Credit</b>
<b>495</b> <b>BIOSTATISTICS (FO)</b> <b>PREREQUISITESS:</b> BIO 110; MTH 153 Introduction to statistical methods of health sciences. The principles underlying basic methods of statistical analysis are examined, including elementary concepts of probability, descriptive statistics, and statistical estimation and testing. Special emphasis on the problems of interpreting data from experimental and observation studies.	<b>Four Credits</b>
<b>496</b> <b>SPECIAL PROBLEMS IN TOXICOLOGY (SI)</b> <b>PREREQUISITES:</b> BIO 495; CHM 322 and 322L Discussion and practical work sessions concerning the development of ideas and activities for specific experimental	<b>Four Credits</b>

studies. The specific features include conversance with current methodology, initiation of independent and original protocols as a toxicological tool.

<b>497</b> <b>INTRODUCTION TO RESEARCH (EE)</b> <b>PREREQUISITE:</b> Junior or Senior Standing Introduction to independent experimental work under the guidance of staff members. Provisions for Honors and undergraduate research participation projects and investigations.	<b>Two Credits</b>
<b>499</b> <b>TISSUE AND CELL CULTURE (SI)</b> <b>PREREQUISITE:</b> Consent of Instructor <b>COREQUISITE:</b> BIO 499L Study of the basic protocols currently employed in the initiation and maintenance of cell lines for in vitro studies, including cell structure, cell types and tissues, behavior of cells in culture, and environmental factors that modulate cell growth.	<b>Three Credits</b>
<b>499L</b> <b>TISSUE AND CELL CULTURE LABORATORY (SI)</b> <b>PREREQUISITE:</b> Consent of Instructor <b>COREQUISITE:</b> BIO 499 Experience in fundamental aspects of handling cell lines.	<b>One Credit</b>
<b>162</b> <b>MATERIALS OF CONSTRUCTION (FO)</b> Survey on construction materials, their characteristics, advantages, and limitations. Emphasis on the use of these materials in various building systems, including costs and durability.	<b>Three Credits</b>
<b>260</b> <b>BUILDING CODES AND SPECIFICATIONS (FO)</b> Emphasis on regional and national building codes, history of building regulations, zoning and its influence on construction and business, including specifications and acceptance on costs and durability.	<b>Three Credits</b>
<b>262</b> <b>METHODS OF BUILDING CONSTRUCTION I (SO)</b> Emphasis on the design, planning and methods of sewage and electrical systems, as well as local and national building codes and techniques.	<b>Three Credits</b>
<b>263</b> <b>FUNDAMENTALS OF SURVEYING (FO)</b> Principles and practices of using basic surveying instruments, error analysis, and note keeping. (Meets 4 hrs. per week.)	<b>Three Credits</b>
<b>264</b> <b>INTERMEDIATE SURVEYING (SO)</b> <b>PREREQUISITE:</b> BCT 263 Practice of obtaining horizontal, vertical, and angular measurements; azimuths and bearing; traverse surveys and computations; triangulation of ordinary precision; stadia; land area calculation, and construction surveys. (Meets 4 hrs. per week.)	<b>Three Credits</b>
<b>265</b> <b>ARCHITECTURAL DETAILS (FO)</b> <b>PREREQUISITE:</b> TMD 150 Study of building construction components for residential buildings and light commercial construction. (Meets 6 hrs. per week.)	<b>Three Credits</b>
<b>266</b> <b>ARCHITECTURAL DRAFTING (SO)</b> Study of building construction drawings for residential buildings and light commercial construction. (Meets 6 hrs. per week.)	<b>Three Credits</b>
<b>363</b> <b>METHODS OF BUILDING CONSTRUCTION II (FO)</b> <b>PREREQUISITE:</b> BCT 262 Comprehensive study of building construction techniques in the construction industry. Emphasis on residential and commercial type structures. Field trips are included.	<b>Three Credits</b>
<b>364</b> <b>STEEL STRUCTURES (E)</b> <b>PREREQUISITES:</b> TMD 345 and 345L Theory and practice in the design and fabrication of structural steel in conformance with current codes and practices. (Meets 4 hrs. per week.)	<b>Three Credits</b>



**367** **CONCRETE STRUCTURES (SI)** **Three Credits**  
**PREREQUISITES:** TMD 345 and 345L  
 Theory and practice in the design of concrete structures in conformance with current codes and practices

**368** **TIMBER STRUCTURES** **Three Credits**  
**PREREQUISITES:** TMD 345 and 345L  
 Theory and practice in the design and fabrication of structural timber in conformance with current codes and practices.

**370** **COST ESTIMATES AND QUALITY CONTROL I (SO)** **Three Credits**  
**PREREQUISITE:** BCT 266  
 Surveys methods of taking quantities from plans, preparation of unit price and lump sum estimates for structural units, including material, expediting, job supervision, site selection, and progress charts and graphs.

**372** **BUILDING CONSTRUCTION PRACTICES (SI)** **Three Credits**  
 Designed to provide practical experiences using the latest techniques in working with masonry, wood, electrical, plumbing, steel and concrete structures.

**376** **SOIL MECHANICS (SO)** **Three Credits**  
**COREQUISITE:** BCT 376L  
 Study of the engineering properties of soil and how those properties affect behavior, such as the movement of water through soil, including ground water contamination, stresses in a soil mass, volume change, shear strength, subsurface investigations and lateral earth pressure.

**376L** **SOIL MECHANICS LABORATORY (SO)** **One Credit**  
**COREQUISITE:** BCT 376  
 Study of the skills necessary to perform soils testing.

**462** **PROBLEM ANALYSIS AND PLANNING (FO)** **Three Credits**  
**PREREQUISITES:** BCT 260 and 370  
 Consideration given to individual problem solving and analysis in specialized areas.

**464** **ORGANIZATION AND SUPERVISION OF CONSTRUCTION (FO)** **Three Credits**  
**PREREQUISITE:** BCT 462  
 Study of construction methods and organization; layout and planning; material requisitioning and progress scheduling, including basic training in estimating quantities of materials from plans and specifications, approximate cost data, fixed and operating cost in major construction works.

**466** **STRUCTURAL PLANNING AND DESIGN (SO)** **Three Credits**  
**PREREQUISITE:** BCT 462  
 Comprehensive study of construction documents for group project, including preparation of working drawings, specifications, scheduling and cost estimates for project. (Meets 6 hrs. per week.)

## BUSINESS ADMINISTRATION - BUS

**175** **INTRODUCTION TO BUSINESS AND ENTREPRENEURSHIP (E)** **Three Credits**  
 Introduction to the world of business and the integrative nature of business activities, business topics germane to both corporate and entrepreneurial environment, including the impact of globalization. Emphasis on the decision-making process in various inter-departments and business functional areas.

**281** **LEGAL ENVIRONMENT FOR BUSINESS (EE)** **Three Credits**  
**PREREQUISITE:** BAD 175  
 Survey of the Anglo-American legal system, the American court system, criminal law, tort law, contracts, property law, the law governing business organizations, and governmental regulation of business. Emphasis on the legal, ethical, social, and political environment in which business and government operate.

**300** **INTERNSHIP (SI)** **Three Credits**  
**PREREQUISITE:** Consent of an Instructor and a Manager in the workplace  
 Supervised work experience in an approved business environment. Students will submit a proposed work plan to

the start of the experience and a paper detailing the experience after its completion.

**330** **BUSINESS COMMUNICATIONS (EE)** **Three Credits**  
 Techniques for writing management-oriented internal and external communications. Emphasis on theory, planning, oral and written presentations, audience perceptions, data organization, media selection, preparation techniques for business letters, and an overview of reports. Includes hands-on experience with the Internet and presentation software.

**382** **COMMERCIAL LAW (SS)** **Three Credits**  
**PREREQUISITE:** FNC 281  
 Introduction to commercial law with emphasis on sales of goods, credit, secured transactions affecting both real estate and personal property, negotiable instruments, rules of bankruptcy, negotiable documents of title, legal aspects of the bidding process, and liability of accounts to clients and non-clients.

**400** **INDEPENDENT STUDY (SI)** **Three Credits**  
**PREREQUISITE:** Consent of the Instructor  
 Supervised independent project designed to explore a single topic in a one-to-one learning relationship with a faculty member.

## CHEMISTRY - CHM

**100** **CHEMISTRY: MAN AND ENVIRONMENT (E)** **Three Credits**  
**PREREQUISITES:** ENG 101; MATH 103  
**COREQUISITE:** CHM 100L  
 Survey of the principles and application of chemistry, designed for non-science majors with limited background in science and mathematics. Includes topics in general, organic, and biochemistry designed to aid the student in understanding the chemical factors in our technological society.

**100L** **CHEMISTRY: MAN AND ENVIRONMENT LABORATORY (E)** **One Credit**  
**COREQUISITE:** CHM 100  
 Introduction to laboratory techniques in chemistry For the non science majors.

**110** **BASIC CONCEPTS IN CHEMISTRY (SI)** **Three Credits**  
 Introduction to the basic concepts necessary for an understanding of chemistry. These fundamental concepts are the foundation for this course and are more fully developed in later chemistry courses. Designed for students with no chemistry background.

**119, 120** **GENERAL CHEMISTRY FOR NON-SCIENCE MAJORS (SI)** **Three Credits**  
**COREQUISITES:** CHM 119L, 120L  
 Development of the principles of chemistry in such a way that delivers the important role of chemistry in daily living. Must be taken in sequence. (For non-science majors).

**119L, 120L** **GENERAL CHEMISTRY LABORATORY (SI)** **One Credit Each**  
**COREQUISITES:** CHM 119, 120  
 Study of the basic laboratory methodology in the form of experiments which relate to technology and daily experiences. Must be taken in sequence.

**200** **CHEMISTRY FOR LIFE (SI)** **Three Credits**  
**PREREQUISITE:** High School Chemistry or CHM 100  
**COREQUISITE:** CHM 200L  
 Survey of the principles and applications of chemistry designed to emphasize the relationship of chemistry to life. Includes a brief review of general chemistry, a survey of organic and biochemistry, and applications of chemistry to life processes and environmental studies.

**200L** **CHEMISTRY FOR LIFE LABORATORY (SI)** **One Credit**  
**COREQUISITE:** CHM 200  
 Laboratory demonstrates concrete examples of the concepts.

**215, 216** **CHEMISTRY (FO) (SI)** **Three Credits Each**  
**COREQUISITE:** CHM 215L, 216L  
 Study of the main concepts of general, organic, and biological chemistry. Designed for health science students whose curricula require only one year of chemistry.

**215L, 216L** **CHEMISTRY LABORATORY (FO) (SI)** **One Credit Each**  
**COREQUISITE:** CHM 215, 216  
 Introduction to laboratory techniques in chemistry. For the Health Science/Exercise Science Majors.

**221, 222** **GENERAL CHEMISTRY I, II (EE)** **Three Credits Each**  
**COREQUISITES:** MTH 153; CHM 221L, 222L  
 Emphasis on theoretical principles necessary for an understanding of the nature of matter and the physical and chemical changes which it undergoes. High school chemistry not required but desirable. Good understanding of algebra desirable. Must be taken in sequence.

**221L, 222L** **GENERAL CHEMISTRY LABORATORY I, II (EE)** **One Credit Each**  
**COREQUISITES:** CHM 221, 222, 223, and 224  
 Experimental chemistry utilizing methods of separation, identification, and purification of mixtures. Emphasis on thermochemical and chemical equilibrium concepts through analysis of experimental data. Must be taken in sequence.

**223, 224** **GENERAL CHEMISTRY I, II (EE)** **Four Credits Each**  
**PREREQUISITE/COREQUISITE:** MTH 153  
 General Chemistry for chemistry majors, emphasizing theoretical principles necessary for understanding the nature of matter and the changes it undergoes. High school chemistry or its equivalent is desirable. Good algebra skills are required because of the quantitative nature of much of the work. Includes problem-solving practice and inclusion of special chemistry topics.

**312** **INTRODUCTION TO ORGANIC CHEMISTRY (O)** **Three Credits**  
**PREREQUISITE:** CHM 222 or 120  
 Study of organic nomenclature, structure of organic compounds, the classes of organic compounds, and the reactions of organic molecules. A one semester organic chemistry for Health Science Majors.

**312L** **ORGANIC CHEMISTRY LABORATORY (O)** **One Credit**  
**PREREQUISITE:** CHM 222L or 120L  
**COREQUISITE:** CHM 312  
 Introduction to the techniques of purification, synthesis, and analysis used in the study of organic chemical reactions. Material is chosen to illustrate reactions and theoretical material presented in CHM 312.

**313** **INTRODUCTION TO BIOCHEMISTRY (O)** **Three Credits**  
**PREREQUISITE:** CHM 312  
**COREQUISITE:** CHM 313L  
 Introduction to the structure of molecules in biochemical systems and the reactions involved in their metabolism.. For Health Science Majors.

**313L** **BIOCHEMISTRY LABORATORY (O)** **One Credit**  
**PREREQUISITE:** CHM 312L  
**COREQUISITE:** CHM 313  
 Introduction to biochemical techniques, including spectroscopic analysis, study of enzyme activity, and isolation and characterization of classes of biomolecules.

**321, 322** **ORGANIC CHEMISTRY I, II (EE) (E)** **Three Credits Each**  
**PREREQUISITE:** CHM 222 or 224  
**COREQUISITES:** CHM 321L, 322L  
 Introduction to the chemistry of carbon-containing compounds, with emphasis on the relationship between the structure of organic molecules and their chemical reactions. Designed for science majors, including pre-medicine. Must be taken in sequence.

**321L, 322L** **ORGANIC CHEMISTRY LABORATORY I, II (EE)** **Two Credits Each**  
**PREREQUISITE:** CHM 222L  
**COREQUISITE:** CHM 321, 322  
 Laboratory course designed to teach modern laboratory procedures and techniques and to illustrate the reactions and theoretical material presented in CHM 321, 322. Must be taken in sequence.

**323L** **SYNTHESIS AND ANALYSIS IN ORGANIC CHEMISTRY (SO)** **Two Credits**  
**PREREQUISITE:** CHM 321L  
**COREQUISITE:** CHM 322  
 Study of techniques of modern organic synthesis and the analysis of reactions and reaction products with emphasis on modern laboratory techniques, including chromatography and spectroscopic analysis. For chemistry majors (others by permission of the instructor).

- 331** **ANALYTICAL CHEMISTRY I (SO)** **Three Credits**  
**PREREQUISITES:** CHM 222 or 224; MTH 153  
**COREQUISITE:** CHM 331L  
 Study of volumetric and gravimetric methods of analysis with emphasis on chemical equilibrium, including acid-base, precipitation, oxidation-reduction, and complex metric methods of analysis.
- 331L** **ANALYTICAL CHEMISTRY I LABORATORY (SO)** **Two Credits**  
**COREQUISITE:** CHM 331  
 Practice of volumetric and gravimetric methods of analysis, including the use of instruments such as pH meters and electroanalyzers.
- 332** **ANALYTICAL CHEMISTRY II (FO)** **Three Credits**  
**PREREQUISITE:** CHM 331; PHY 152  
**COREQUISITE:** CHM 322L  
 Study of instrumental methods of analysis, including electrochemical, spectroscopic, chromatographic, thermal, and kinetic methods.
- 332L** **ANALYTICAL CHEMISTRY II LABORATORY (FO)** **Two Credits**  
**PREREQUISITE:** CHM 331L  
**COREQUISITE:** CHM 332  
 Methods of analysis employing electrochemical techniques, spectrophotometer, chromatograph, microprocessor analyzers, and thermal analyzers.
- 345** **MATHEMATICAL METHODS & LOGIC FOR THE PHYSICAL SCIENCES (FO)** **Three Credits**  
**PREREQUISITE:** MTH 252  
 Application of differential equations, vector analysis, determinants and functions to problems encountered in the physical sciences. Emphasis on practical problem-solving skills.
- 351, 352** **SEMINAR (EE)** **One Credit Each**  
 Presentation and discussion of current topics in all areas of chemistry. Required of junior chemistry majors.
- 361, 362** **PHYSICAL CHEMISTRY I, II (FO) (SO)** **Three Credits Each**  
**PREREQUISITES:** MTH 251; PHY 153 for CHM 361; MTH 252 for CHM 362  
**COREQUISITES:** CHM 331, 345; MTH 252  
 Quantitative study of the structure and physical properties of matter including study of the laws governing chemical interaction and the foundations upon which these laws rests. Covers energy changes accompanying physical and chemical changes. Must be taken in sequence.
- 363L** **PHYSICAL CHEMISTRY LABORATORY (SO)** **Two Credits**  
**COREQUISITE:** CHM 361, 362  
 Typical physicochemical measurements which seek to refine computational skills and experimental techniques. Instrumentation associated with spectroscopy, kinetics, and macromolecular characterization regularly employed.
- 370** **INDUSTRIAL CHEMISTRY (SI)** **Three Credits**  
**PREREQUISITE:** Approval of the Chemistry Department  
 Seminars supervised by visiting industrial chemists as well as the departmental faculty, including internship for cooperative training at an industrial chemical company with co-op assignment opportunities.
- 397, 398** **INTRODUCTION TO RESEARCH (EE)** **One Credit Each**  
**PREREQUISITE:** Approval of the Instructor  
 Investigation of current problems in chemistry, supervised by one of the members of the Chemistry Department. (5 hours lab per week required for one semester credit hour.)
- 431, 432** **BIOCHEMISTRY I, II (FO) (SO)** **Three Credits Each**  
**PREREQUISITES:** CHM 322, 362  
 In-depth study of the reactions occurring in living systems, designed for science majors (especially students intending advanced study in the health sciences). Topics include molecular architecture, molecular energetics, interactions of biomolecules, intermediary metabolism, mass transport in biological systems, and molecular genetics.
- 431L, 432L** **BIOCHEMISTRY LABORATORY I, II (FO) (SO)** **Two Credits Each**  
**PREREQUISITE:** CHM 322L or CHM 323L  
 Emphasis on the procedures and operations of modern instrumentation used for isolation, purification, and study of biomolecules including modern chromatography techniques,

gel and paper electrophoreses, ultra centrifugation, spectroscopic techniques, etc. Techniques are applied to isolation of enzymes, other proteins, nucleic acids, and the study of enzyme kinetics and enzyme-catalyzed reactions in several systems.

- 433** **PATHOLOGICAL BIOCHEMISTRY (SI)** **Three Credits**  
**PREREQUISITE:** CHM 432  
 Study of the biochemical principles and mechanisms as they apply to the disease state.

- 451, 452** **SEMINAR (EE)** **One Credit Each**  
 Presentation and discussion of current topics in all areas of chemistry. Required of all senior chemistry majors.

- 461L** **CHROMATOGRAPHY** **Two Credits**  
**PREREQUISITE:** CHM 332L  
 Problem solving in separation of mixtures using gas, liquid, column and thin-layer chromatography.

- 462L** **SPECTROSCOPY** **Two Credits**  
**PREREQUISITE:** CHM 332L  
 Problem solving in molecular spectroscopy using common techniques in infrared spectroscopy, nuclear magnetic spectroscopy, and ultraviolet-visible spectroscopy.

- 471** **TOXICOLOGY** **Three Credits**  
**PREREQUISITE:** CHM 322 or Permission of the Instructor  
 Survey of effects of poisons, including study of dose-response phenomena, the nature of toxic effects, and the absorption, distribution, metabolism, and excretion of toxic materials.

- 473** **ADVANCED INORGANIC CHEMISTRY (SO)** **Three Credits**  
**PREREQUISITE/ COREQUISITE:** CHM 362  
 Study of chemical bonding, molecular structure, coordination compounds, and descriptive inorganic chemistry.

- 473L** **ADVANCED INORGANIC CHEMISTRY LABORATORY (SO)** **Two Credits**  
**PREREQUISITE:** CHM 332L  
 Techniques for synthesis and characterization of transition metal coordination complexes. Utilize methods such as ion exchange chromatography, molar conductivity, electronic absorption, infrared, and nuclear magnetic resonance spectroscopy. The format is that of a unified project rather than a series of separate, unrelated experiments.

- 475** **ADVANCED ORGANIC CHEMISTRY (SI)** **Three Credits**  
**PREREQUISITE:** CHM 322  
 In-depth study of organic reaction mechanisms with emphasis on physical measurements as a means of determining structure and mechanisms. The course is designed for students planning advanced study in chemistry, biology, or medical sciences.

- 476** **QUALITATIVE ORGANIC ANALYSIS** **Three Credits**  
**PREREQUISITE:** CHM 322L or CHM 332L  
 Introduction to a wider range of laboratory techniques and consideration of classical wet analysis.

- 477** **SCIENTIFIC COMMUNICATION** **Three Credits**  
 Comprehensive survey of scientific literature with emphasis on personal record-keeping, writing strategies, and appropriate writing styles for scientific writing. This class is open to all seniors interested in improving their writing skills.

- 478** **INTRODUCTION TO INORGANIC SPECTROSCOPY (SI)** **Three Credits**  
 Introduction to the basic theories of structural methods (spectroscopy) in Inorganic Chemistry. Topics include Nuclear Magnetic Resonance Spectroscopy; Electron Spin and Nuclear Quadrupole Resonance Spectroscopy; Mossbauer Spectroscopy; Mass Spectroscopy; and Diffraction Methods.

- 481/482** **SPECIAL TOPICS IN CHEMISTRY (SI)** **Three Credits**  
**PREREQUISITE:** Approval of Chemistry Department  
 Emphasis on modular topics including modern chemical bonding, stereochemistry, spectroscopy, ionization equilibrium, macromolecule, acid-base chemistry, organic and inorganic nomenclature, kinetics, advanced analytical techniques, etc.
- 497, 498** **INTRODUCTION TO RESEARCH (EE)** **One Credit Each**  
**PREREQUISITE:** Approval of the Instructor Involved

Investigation of current problems in chemistry supervised by one of the Chemistry Department instructors. (5 hours per week).

## COMMUNICATION SCIENCES AND DISORDERS PROGRAM - CSD

- 101** **ORAL COMMUNICATION ENHANCEMENT (E)** **Three Credits**  
 Orientation course introduces students to various methods and techniques for improving their oral communication (speech) and listening skills. Emphasis on reading and writing skills. Students' speech- language patterns and hearing acuity are professionally assessed by certified speech-language pathologists and audiologists.

- 116** **ORIENTATION TO COMMUNICATION SCIENCES AND DISORDERS (E)** **One Credit**  
 Introduction to the professions of speech-language pathology and audiology with emphasis on the role of the American Speech-Language-Hearing Association and its code of ethics; certification procedures and professional nomenclature. Study of various speech-language and hearing disorders, including a discussion of academic and research aspects of speech-language pathology and audiology. (web-based course).

- 211** **PHONETICS (SO)** **Three Credits**  
**PREREQUISITES:** ENG 101, 102 (with grades of C or better)  
 Scientific study of English speech sounds, production, reception and symbolic use, including transcribing words and sentences with use of phonetics.

- 212** **SPEECH AND LANGUAGE DEVELOPMENT (SO)** **Three Credits**  
**PREREQUISITES:** ENG 101, 102  
 Study of the normal processes of speech and language development with emphasis on language universals and the linguistic systems of sound patterns, word combining, meanings and intentionality. Examines relationship between cognition and language. The latter portion of the course introduces students to some aspects of disordered speech and language development.

- 213** **USE OF COMPUTERS AND OTHER INSTRUMENTATION IN COMMUNICATION SCIENCES AND DISORDERS (FO)** **One Credit**  
**PREREQUISITES:** CSC 150 (or equivalent course) and CSD 116 (with grades of C or better).  
 Study of basic electronics, computer hardware design and software programs germane to the fields of speech-language pathology and audiology.

- 218** **ANATOMY AND PHYSIOLOGY OF THE SPEECH MECHANISM (FO)** **Three Credits**  
**PREREQUISITE:** BIO 105, or 165 (with grade of C or better)  
 Study of the basic structure of the organs that function in the production of speech with emphasis on the processes of respiration, phonation, resonance, and articulation, including neurological aspects of speech and language production. (web-based course).

- 311** **METHODS AND MATERIALS IN COMMUNICATION SCIENCES AND DISORDERS (FO)** **Three Credits**  
**PREREQUISITES:** CSD 116, 212 (with grades of C or better).  
 Introduction to contemporary diagnostic and therapeutic methods and materials used by speech-language pathologists and audiologists in schools, hospitals, clinics and rehabilitation settings. Requirements include construction of a "functional workbook (kit)" consisting of diagnostic and therapy materials, clinical activities, and tests, and demonstration of the use of these materials in clinical practicum activities.

- 312** **PHONOLOGICAL, ARTICULATORY AND RELATED LANGUAGE DISORDERS (FO)** **Three Credits**  
**PREREQUISITES:** CSD 116, 211 and 212 (with grades of C or better).  
 Comprehensive study of the phonological and articulatory processes of speech, and associative disorders of oral language. Students are required to administer and interpret the results of various tests (i.e., phonological, articulation, oral language, etc.). In addition, students observe diagnostic and therapy procedures conducted by certified speech-language

pathologists working with speech-impaired children and adults.

**313** **INTRODUCTION TO AUDIOLOGY AND HEARING SCIENCES (FO)** **Three Credits**  
**PREREQUISITES:** MTH 105; BIO 105 or 165 (with grades of C or better).

Emphasis on the anatomy and physiology of the hearing mechanism and the disorders that can affect it. Basic audiometric techniques and procedures are taught, as well as the interpretation of hearing test results.

**315** **NEUROGENIC AND OTHER ORGANIC COMMUNICATIONS DISORDERS (SO)** **Three Credits**  
**PREREQUISITES:** CSD 116, 218, 312 (with grades of C or better).

Introduction to the basics of neurology as they pertain to the communication processes. Overview of common neurogenic disorders of communication, including aphasia, apraxia, dysarthria, dementia and other linguistic disorders associated with traumatic brain injury, aging, substance abuse, etc.

**320** **VOICE AND SPEECH SCIENCES (SO)** **Three Credits**  
**PREREQUISITES:** MTH 105; BIO 105 or 165; CSD 116, 218 (with grades of C or better)

Study of the human voice and speech production processes. The physics of sound are explored, as well as the respiratory, laryngeal, resonatory and articulatory aspects of voice and speech. Diagnostic and treatment procedures for voices and speech disorders are also reviewed. Opportunities to conduct supervised field research activities are provided.

**413** **RESEARCH METHODS IN COMMUNICATION SCIENCES AND DISORDERS (FO)** **Three Credits**  
**PREREQUISITES:** MTH 250; ENG 303 (with grades of C or better).

Independent research on a topic selected by the student and approved by the student's departmental advisor and completed under the guidance of that advisor. Study of the appropriate methods and procedures for data collection, analysis, interpretation and reporting. Students are expected to approach this course with the intention of formally presenting (e.g., professional conference) and/or publishing (e.g., professional publication) their research findings.

**414** **VOICE AND FLUENCY DISORDERS (FO)** **Three Credits**  
**PREREQUISITES:** CSD 116, 212, 320 (with grades of C or better).  
 Introduction to the etiological, evaluative or diagnostic, and therapeutic procedures used with persons with voice disorders and various types of verbal dysfluency behaviors.

**415** **CLINICAL PROCEDURES IN COMMUNICATION SCIENCES AND DISORDERS (E)** **Three Credits**  
**PREREQUISITES:** CSD 116, 312, 311, and 313 (with grades of C or better)

Study of the philosophy underlying clinical procedures for speech-language pathology. Current methods used in speech-language pathology for observing communication behaviors, recording data, establishing effective reinforcement techniques, and therapeutic routines are explored. Students are expected to accumulate 15-20 hours of supervised clinical observations to satisfy the preliminary requirements for ASHA certification.

**416** **REHABILITATION OF HEARING DISORDERS (SO)** **Three Credits**  
**PREREQUISITE:** CSD 313 (with grades of C or better)  
 Current procedures in aural rehabilitation, including speech reading, hearing conservation, hearing aid selection and auditory training are studied for both the hard of hearing and deaf populations from both habilitative and rehabilitative perspectives. (web-based course.)

**417** **CLINICAL PRACTICUM IN COMMUNICATION SCIENCES AND DISORDERS (E)** **Three Credits**  
**PREREQUISITES:** CSD 315, 414, and 415 (with grades of C or better)

Clinical Practicum provides majors who have satisfactorily completed all academic prerequisites experience in offering direct supervised clinical services to persons with speech, language and/or hearing disorders. These services are rendered primarily through the NSU Speech, Language and Hearing Center located on campus, although external practicum experiences may also be available. Majors refine their therapeutic skills, as well as report writing skills for diagnostic reports, initial therapy plans, daily therapy plans, and progress reports. Interviewing and counseling

procedures are reviewed. Students are expected to accumulate 20-30 hours of supervised clinical observations to satisfy the preliminary requirements for ASHA certification.

**418** **SEMINAR TOPICS IN COMMUNICATION SCIENCES AND DISORDERS (E)** **One Credit**  
**PREREQUISITES:** CSD 116 and 415 (with grades of C or better).

Seminars on subjects pertaining to current issues facing speech-language pathologists and/or audiologists are presented. Subjects for discussion and presentation are introduced through collaboration between students and instructors. (web-based course.)

## COMPUTER INFORMATION TECHNOLOGY - CIT

**204** **DIGITAL LOGIC (SO)** **Three Credits**  
**PREREQUISITES:** ELT 212, 212L  
**COREQUISITE:** CIT 204L

Study of combinational logic and sequential logic. Combinational logic includes number systems, Boolean algebra, Karnaugh maps, truth tables, coding, switching circuits analysis and design; sequential logic portion includes flip flops, latches, sequential circuit analysis and design, counters, and shift registers.

**204L** **DIGITAL LOGIC LAB (SO)** **One Credit**  
**PREREQUISITES:** ELT 212, 212L  
**COREQUISITE:** CIT 204  
 Practical experience in designing, building, and testing digital circuits and methods.

**304** **DIGITAL SYSTEM DESIGN (SO)** **Three Credits**  
**PREREQUISITES:** CIT 204, 204L  
**COREQUISITE:** CIT 304L

Study of the building blocks of digital system design: encoders, decoders, comparators, multiplexers, demultiplexers, adders, subtractors, arithmetic logic unit, programmable logic devices and an introduction to microprocessors.

**304L** **DIGITAL SYSTEM DESIGN (SO)** **One Credit**  
**PREREQUISITES:** CIT 204, 204L  
**COREQUISITE:** CIT 304  
 Practical experience in building and testing digital systems and methods with emphasis on programmable logic devices, programming and applications.

**305** **COMPUTER ORGANIZATION (FO)** **Three Credits**  
**PREREQUISITES:** CSC 150; CIT 204, 204L  
 Study of microcomputer operating systems with emphasis on MS-DOS, utility and diagnostic software, virus protection, preventative maintenance data protection and recovery, computer architecture and design.

**305L** **COMPUTER ORGANIZATION LAB (FO)** **One Credit**  
**PREREQUISITES:** CSC 150; CIT 204, 204L  
 Practical experience in DOS commands, windows, utility and diagnostic software and data protection and recovery.

**315** **MICROPROCESSORS (SO)** **Three Credits**  
**PREREQUISITES:** CIT 204, 204L; CIT305  
 Study of the microprocessor as a programmable device. The 80286, 80386 and 80486 microprocessors will be examined with primary emphasis on the 80286. Examination of the instruction set to program the microprocessor is covered, and applications using the assembler program will be studied.

**334** **ELECTRO-MECHANICAL COMPONENTS** **Three Credits**  
**PREREQUISITES:** CIT 150; ELT 113  
 Introduction to drive relays, cam-operated switchers, electro-mechanical clutches, feeding mechanisms, recording- writing mechanisms, accumulating mechanisms, control and timing of electro-mechanical systems.

**335** **PROGRAMMABLE LOGIC CONTROLLERS (PLC's) (FO)** **Three Credits**  
**PREREQUISITE:** MTH 153  
 Introduction to electrical control devices, control diagrams, and programmable logic controllers (PLC's) with emphasis on PLC programming and analysis.

**432** **COMPUTER INTERFACES AND PERIPHERAL DEVICES (FO)** **Three Credits**  
**PREREQUISITES:** CIT 304, 304L, 315  
 Study of computer interfaces and peripheral devices, the programming, operation, and interfacing of the microprocessor, and the programming/operation of the numeric co-processor, which provide an understanding of applications such as control systems, video graphics, and computer-aided design (CAD) with emphasis on The Advanced Intel Microprocessor Family.

**434** **COMPUTER NETWORKS TECHNOLOGY (SO)** **Three Credits**  
**PREREQUISITE:** CIT 305 or Instructor's approval  
 Introduction to the administration of local area networks with emphasis on management users of workstation and other system resources, including the Internet and internets using other techniques.

**499** **SENIOR PROJECT (SO)** **Three Credits**  
**PREREQUISITES:** CIT 314, 314L; Senior standing  
 Selection and completion of a project under faculty supervision conducted as an individual or small-group design project, including determining customer requirements, considering design alternatives, issuing a formal project proposal, and implementing the proposal. Software scheduling tools are used extensively. The course concludes with a report and demonstration of functionality of individual hardware and software design blocks. Projects are common problems graduates must solve in their field of employment.

## COMPUTER SCIENCE - CSC

**101** **INTRODUCTION TO THE COMPUTER SCIENCE PROFESSION (FO)** **One Credit**  
 An introduction to career opportunities for computer scientists and strategies to improve academic performance in the discipline. Course topics include lectures by computer science professionals and seminars on active coping, collaborative learning, pair programming, and the development of inclusive relationships.

**150** **COMPUTER CONCEPTS AND APPLICATIONS (E)** **Three Credits**  
 Introduction to computers and information processing. Primary emphasis is placed on three standard applications: Word Processing, Spreadsheet, and Data Base. Extensive laboratory assignments and hands-on exercises using the microcomputer laboratory are mandatory.

**151** **INTERNETWORKING I (SI)** **Four Credits**  
**PREREQUISITE:** Basic computer literacy, and awareness of the Internet. (Network Certification Course)  
 Study of network terminology and protocols, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards.

**152** **INTERNETWORKING II (SI)** **Four Credits**  
**PREREQUISITE:** CSC 151 (Network Certification Course)  
 Study of initial router configuration, Cisco IOS Software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Develop skills on how to configure a router, managing Cisco IOS Software, configuring routing protocol on routers, and set the access lists to control the access to routers.

**160** **VISUAL BASIC PROGRAMMING (SI)** **Three Credits**  
**PREREQUISITE:** High School Algebra  
 Introduction to problem analysis and Visual Basic Programming. Emphasis on the orderly analysis of a problem and the programming and testing of that problem.

**169** **INTRODUCTION TO COMPUTER SCIENCE (EE)** **Three Credits**  
**PREREQUISITE:** High School Algebra  
 Study of the fundamental concepts of the discipline with emphasis on information representation, algorithms and problem solving, computer hardware and software, data representation and the impact of computers in society.

**170** **COMPUTER PROGRAMMING I (E)** **Three Credits**  
**PREREQUISITES:** MTH 151 or equivalents; CSC 169  
 Introduction to programming and problem solving in an object-oriented language with emphasis on basic programming

constructs, arrays, debugging, software engineering practices, and the fundamentals of file handling.

**170L** **COMPUTER PROGRAMMING I LAB (E)** **One Credit**  
**COREQUISITE: CSC 170**  
**PREREQUISITE: MTH 151**  
 Supplementary course to CSC 170 structured as a closed computer laboratory to complete specific programming tasks within a fixed time.

**192** **INTRODUCTION TO THE INTERNET (SI)** **One Credit**  
**PREREQUISITE: Any computer literacy course**  
 Introduction to the concepts, software, data, and issues associated with the use of networked information. Internet topics include local network access, electronic mail, transferring files from other network sites, network news, and network hypermedia (World Wide Web and Netscape).

**195** **INTERNET PROGRAMMING WITH JAVA (SI)** **Three Credits**  
**PREREQUISITES: CSC 192**  
 Introduction to high level internet programming techniques and Java with emphasis on internet programming basics for creating static Web pages and dynamic Web pages in HTML and XML through the addition of scripts. Utilize the latest Java Development Kit to create Java applets and stand alone Java applications for the Internet deployment.

**200** **ADVANCED COMPUTER CONCEPTS (E)** **Three Credits**  
**PREREQUISITE: Any computer literacy course**  
 Advanced study of electronic research and presentations, utilizing the Internet and World Wide Web. Primary emphasis on E-Mail, Search Engines, News Groups, and Presentation Tools. Extensive laboratory assignments and hands-on exercises using the microcomputer laboratory are mandatory. A formal presentation using presentation tools is required.

**251** **INTERNETWORKING III (SI)** **Four Credits**  
**PREREQUISITE: CSC 152**  
 Study of advanced IP addressing techniques (Variable Length Subnet Masking [VLSM]), intermediate routing protocols (RIP v2, single-area OSPF, EIGRP), command-line interface configuration of switches, Ethernet switching, Virtual LANs (VLANs), Spanning Tree Protocol (STP), and VLAN Trunking Protocol (VTP).

**252** **INTERNETWORKING IV (SI)** **Four Credits**  
**PREREQUISITE: CSC 251**  
 Introduction to advanced IP addressing techniques (Network Address Translation [NAT], Port Address Translation [PAT], and DHCP), WAN technology and terminology, PPP, ISDN, DDR, Frame Relay, network management, and introduction to optical networking.

**260** **COMPUTER PROGRAMMING II (EE)** **Three Credits**  
**PREREQUISITE: CSC 170**  
 Introduction to data structures, algorithms and building objects. Topics include linked lists, stacks and queues, recursion and binary trees.

**260L** **COMPUTER PROGRAMMING II LAB (EE)** **One Credit**  
**COREQUISITE: CSC 260**  
**PREREQUISITE: MTH 151**  
 Supplementary course to CSC 260 structured as a closed computer laboratory to complete specific programming tasks within a fixed time.

**268** **COMPUTER ORGANIZATION & ASSEMBLY (EE)** **Three Credits**  
**LANGUAGE PROGRAMMING**  
**PREREQUISITE: CSC 260**  
 Study of transistor concepts, leading to digital logic circuits, emphasizing combinational logic, sequential logic and design of functions based on specifications. Different logic families such as Bi-polar, TTL and ECL, and Memory and Ports in Microcomputer Systems will also be covered. Simulation packages are used in digital circuit design.

**270** **DISCRETE STRUCTURES (EE)** **Three Credits**  
**PREREQUISITE: CSC 260; MTH 251**  
 Introduction to the areas of discrete mathematics that are important for computer science. Topics include logic, sets, functions, relations, algorithms, counting methods, and graph theory.

**292** **UNIX AND C PROGRAMMING (EE)** **Three Credits**  
**PREREQUISITE: CSC 260**

Introduction to C programming in a UNIX environment, including the UNIX command interpreter, Shell; how Shell scripts can be used as powerful tools and applications and the development of application and systems programs using C.

**295** **JAVA APPLICATIONS PROGRAMMING (EE)** **Three Credits**  
**PREREQUISITE: CSC 260**  
 Introduction to the core JAVA language with emphasis on applications development using the latest JAVA class libraries such as Swing, JavaBeans, Java2D, Java3D. This course is designed for students who are familiar with object-oriented programming in C++ and the fundamentals of the World Wide Web.

**360** **INTERFACE DESIGN AND IMPLEMENTATION (SO)** **Three Credits**  
**PREREQUISITE: CSC 260**  
 Introduction to the techniques used for designing, implementing, and testing human/computer interfaces, including methods of user-centered interface design, implementing user interfaces, techniques and tools for event driven programming, testing and evaluation of user interfaces.

**361** **SURVEY OF PROGRAMMING LANGUAGES (EE)** **Three Credits**  
**PREREQUISITE: CSC 260**  
 Survey of programming languages such as FORTRAN, PL/1, AGOL, Pascal, APL, SNOBOL, Ada, Prolog, C, and LISP with emphasis on data structures and storage, control structures, execution environment, input/output, and the syntax and semantics of the languages.

**369** **THEORY OF COMPUTATION (SO)** **Three Credits**  
**PREREQUISITE: CSC 270**  
 Introduction to sequential machines, finite state automata, formal languages and turning machines, computable, and non-computable functions.

**372** **DATA STRUCTURES (SI)** **Three Credits**  
**PREREQUISITE: CSC 260**  
 Analysis of data structures and algorithms using C++ as the implementation language. Detailed examination of lists, heaps, trees, graphs, file structures, and the use of formal methods with emphasis on the development and analysis of efficient algorithms.

**375** **FILE MANAGEMENT (SI)** **Three Credits**  
**PREREQUISITE: CSC 372**  
 Introduction to the use and maintenance of sequential and non-sequential files with emphasis on mechanisms for maximizing storage utilization and minimizing file processing time.

**380** **SOFTWARE ENGINEERING (EE)** **Three Credits**  
**PREREQUISITE: CSC 260**  
 Introduction to the design of software projects with the analysis, design, implementation, testing and maintenance of the software life cycle with emphasis on significant and varied writing components, including group projects paralleling realistic software development projects.

**420/ 521** **DATA BASE PRINCIPLES AND DESIGN (FO)** **Three Credits**  
**PREREQUISITE: CSC 260**  
 An introductory course emphasizing the basic concepts and principles of database systems. Topics include introduction to database systems and databases, different database system models, basic systems and language support for database systems; relational modes, relational algebra and introduction to relational database design as well as overview of common database system issues.

**422** **DATABASE IMPLEMENTATION (SO)** **Three Credits**  
**PREREQUISITES: CSC 372, 292, 420**  
 Introduction to database design methodology and tools, designing and building of forms and reports, database programming using embedded SQL, Internet/Web database and database administration.

**430/ 530** **DATA COMMUNICATIONS (EE)** **Three Credits**  
**PREREQUISITE: CSC 372**  
 Study of principles of computer communication as well as hardware and software designs, including transmission media, data encoding, transmission techniques, protocols, switching networks, broadcast networks, and local area networks.

**432** **WIRELESS DATA NETWORKING (FO)** **Three Credits**  
**PREREQUISITE: CSC 260**

An introduction to various wireless data network standards at a technical level. Emphasis will be on learning wireless network architectures for wireless LANs, wireless PANs, broadband wireless access (BWA) and cellular data networks (3G and beyond).

**435/ 535** **COMPUTER SECURITY I (FO)** **Three Credits**  
**PREREQUISITE: Permission of Instructor**  
 Introduction to Information Assurance concepts, in addition to logging, encryption and decryption, effects on operating systems and machine architecture, countermeasures, risk analysis, security administration, legality and ethics, and computer forensics.

**445** **COMPUTER NETWORK DEFENSE (SO)** **Three Credits**  
**PREREQUISITE: CSC 260 or Permission of Instructor**  
 Students will have hands-on analysis of defending computer networks against the common methods and tools used to harm them. Topics covered include the weaknesses of current network topologies, passive and active information gathering and common attack methods including viruses, worms, denial of service attacks, e-mail bombs, and buffer overflow attacks. Ethics and legal implications are also discussed.

**450** **ELECTRONIC PUBLISHING (SI)** **Three Credits**  
**PREREQUISITES: CSC 192, 260**  
 Survey of information published via electronic means. Electronic publishing is an interdisciplinary field and many technologies are integrated, including Internet and document standards.

**464/ 564** **OPERATING SYSTEMS (E)** **Three Credits**  
**PREREQUISITE: CSC 372**  
 Introduction to the history and evolution of operating systems, the concepts behind and structure of various operating systems, process scheduling, interprocess communication, input and output, multiprogramming, memory management and file systems. Concepts of distributed operating systems are also introduced.

**465** **MICROCOMPUTERS (SI)** **Three Credits**  
**PREREQUISITE: CSC 268**  
 In-depth study of the hardware and software in microcomputer systems with emphasis on the analysis of system architecture and programming with the instruction set of the system processor.

**466/ 566, 467/ 567** **ADVANCED COMPUTER TOPICS I and II (SI)** **Three Credits**  
**PREREQUISITE: Consent of the Instructor**  
 Elective course for Computer Science.

**468** **COMPUTER ARCHITECTURE (EE)** **Three Credits**  
**PREREQUISITE: CSC 268**  
 Study of computer organization and architecture that deals with processors, their architectures, memory, input, output, the micro architectural level, instruction set architectural level and the operating system machine level.

**470/ 570** **ARTIFICIAL INTELLIGENCE (FO)** **Three Credits**  
**PREREQUISITE: CSC 372**  
 In-depth study of concepts and problem solving techniques of artificial intelligence, including knowledge representation, functional and logic programming, machine learning, natural language understanding, computer vision, robotics, and societal impact.

**476/ 576, 477/ 577** **ADVANCED COMPUTER TOPICS III and IV (SI)** **Three Credits**  
**PREREQUISITE: Consent of the Instructor**  
 Advanced computer topics not generally covered in the curriculum. Designed as a Computer Science elective, not as a replacement for any specific required course.

**480/ 580** **COMPUTER GRAPHICS (SO)** **Three Credits**  
**PREREQUISITE: CSC 372**  
 Study of interactive computer graphics hardware and software: display devices, 2D and 3D geometric transformations, raster algorithms, representation of curves and surfaces, hidden line removal and surfaces, shading algorithms, and color graphics.

**492** **INDEPENDENT STUDY (E)** **Three Credits**  
**PREREQUISITE: Consent of the Instructor**

Supervised independent project designed to explore a single topic in a one-to-one learning relationship with a faculty member.

**493/ 593** **Three Credits**  
**SYSTEMS PROGRAMMING (SO)**  
**PREREQUISITE: CSC 464/ 564**  
 Fundamentals of system and network programming methodology, techniques, system calls and library calls.

**496/ 596** **Three Credits**  
**COMPILER CONSTRUCTION (SI)**  
**PREREQUISITE: CSC 372**  
 An introduction to the fundamentals of compiler construction and language translation. Topics include lexical analysis, specifications of syntax, algorithms for syntactic analysis, code generation, and optimization techniques.

**498/ 499** **One/Two Credits**  
**COMPUTER SCIENCE SEMINAR I and II (FO) (SO)**  
**PREREQUISITES: Senior Standing and CSC 380**  
 Culminating course designed to synthesize computer science knowledge and experiences through participation in a research project of the student's choice. Results of the research are presented to peers and other interested members of the computer science community.

## COOPERATIVE EDUCATION – CED

**250** **One Credit**  
**CAREER DEVELOPMENT AND LEADERSHIP SEMINAR (EE)**  
 Study of resume writing, interviewing, goal setting (Visioning), leadership and job search strategies for internship, co-op and permanent placement. Upon completion, the student is equipped with all the necessary tools required to obtain professional and personal success.

**350** **One Credit**  
**COOPERATIVE EDUCATION (ACTUAL CO-OP ASSIGNMENT) (E)**  
 Required for all students who have secured a cooperative work assignment on their own, through the department or through the Cooperative Education office to complete the appropriate forms. At this time, the student receives the criteria that must be met to receive academic credit.

**450** **One Credit**  
**COOPERATIVE EDUCATION (ACTUAL CO-OP ASSIGNMENT) (E)**  
 Required for all students doing their second co-op assignment. Continuation of the previous assignment or a more advanced work experience. The student must also register for this course and come to the Cooperative Education office to complete the appropriate forms. At this time, the student receives the criteria that must be met to receive academic credit.

## CRIMINAL JUSTICE - CJS

**200** **Three Credits**  
**INTRODUCTION TO CRIMINAL JUSTICE**  
 Study of systematic analysis of the functions of the police, courts, and corrections in dealing with lawbreakers with emphasis on basic theories and empirical research findings.

**220** **Three Credits**  
**JUVENILE DELINQUENCY**  
 Systematic analysis of juvenile delinquency as a major social problem in American society with emphasis on the prevention and control of delinquency, the cause of delinquency, and the treatment of juveniles in the juvenile justice system. Introduces and analyzes classical works and empirical findings.

**225** **Three Credits**  
**LAW ENFORCEMENT**  
 Focuses on the police as an official societal agency of social control. Provides understanding of the role of the police in reducing and promoting crime. Surveys the organization of police departments, as well as the recruitment and socialization of police officers.

**230** **Three Credits**  
**INTRODUCTION TO CORRECTIONS**  
 Examines various attempts to control crime and delinquency by diverting the potential and actual offender into law-abiding activities. Provides a better understanding of contemporary correctional activities in the United States through historical and cross-cultural information about formal and informal, legal

and extra-legal, and institutional and community-based programs.

**310** **Three Credits**  
**CRIMINOLOGY**  
 Focuses on the scientific study of criminal behavior in contemporary industrial-urban societies. Systematic attention is given to social, economic, and cultural factors associated with the causes of crime, prevention and control of crimes, and treatment of criminals. Presents a systematic analysis of classical theories, innovative strategies, and empirical studies.

**313** **Three Credits**  
**AMERICAN COURT SYSTEMS**  
 Introduction to the operation of the judicial court system with emphasis on the police, agents of the Federal Bureau of Investigation, the Treasury Department, and other agencies, the prosecutor, the courts, and institutions, special treatment programs, and probation and parole offices. Analysis of problems in the administration of justice, such as overcrowding, delays, discrimination, and the role of negotiations in the sentencing process.

**315** **Three Credits**  
**SOCIOLOGY OF DRUG USAGE**  
 Examines facts and theories of drug usage in different cultures, focuses primary attention on contemporary United States. Includes medical aspects of different kinds of drugs and physiological effects; legal aspects of the origins of criminal drug laws and the consequences of drug use; epidemiological aspects of the socio-psychological factors as to why persons use and abuse drugs; and control aspects including prevention and rehabilitation programs.

**492** **Three Credits**  
**TOPICS IN CRIMINAL JUSTICE**  
**PREREQUISITE: Senior Standing and Consent of Instructor**  
 Introduction to a contemporary criminal justice subject with emphasis on a specific criminal justice issue or a combination of issues in greater depth.

## DECISION SCIENCES - DSC

**270** **Three Credits**  
**BUSINESS STATISTICS (E)**  
**PREREQUISITE: MTH 132**  
 Methods of collecting, tabulating, graphing and interpreting statistical data, measures of central tendency and variability. Elementary probability with emphasis on binomial and normal distributions, sampling methods, estimating and hypotheses testing.

**376** **Three Credits**  
**STATISTICS AND QUANTITATIVE METHODS (E)**  
**PREREQUISITES: MTH 132; DSC 270; Junior Standing**  
 Introduction to regression techniques and analysis of variance in decision-making; contingency tables, decision analysis, management science models, decision-making process, linear programming, transportation, assignment and network models; simple waiting line problems and use of simulation.

## DESIGN TECHNOLOGY - MECHANICAL - TMD

**145** **Three Credits**  
**ENGINEERING MATERIALS TECHNOLOGY**  
 Introduction to basics of materials science through individualized and group instruction, relating the basic nature and properties of polymer, ceramic, metallic, composite, and electronic materials to processing and design requirements.

**150** **Three Credits**  
**ENGINEERING GRAPHICS**  
 Introduction to theories of projection and the concepts of engineering drawing, including geometric construction, multi-view drawing, auxiliary views as well as techniques of lettering and sketching. Hands-on sessions provide practice to reinforce the concepts and to provide practical experience.

**151** **Three Credits**  
**INTRODUCTION TO CAD**  
**PREREQUISITE: TMD 150**  
 Awareness of computers in engineering design and problem solving, with emphasis on AutoCAD program on microcomputers for engineering graphics.

**225** **Three Credits**  
**MECHANICS I: STATICS**  
**PREREQUISITE: MTH 153**

Develops analytic abilities of various types of force, with emphasis on systems using algebra and trigonometry, including vectors, centroids, moments and friction.

**227** **Three Credits**  
**DYNAMICS**  
**PREREQUISITE: MTH 184**  
 Introduction to a vector treatment of the kinematics and laws of motion of particles and rigid bodies, including acceleration, momentum, work, energy and power.

**251** **Three Credits**  
**ADVANCED CAD**  
**PREREQUISITE: TMD 151**  
 Advanced aspects of CAD using AutoCAD, with emphasis on 3-D techniques, solid modeling, and rendering.

**252** **Three Credits**  
**TOOL DESIGN**  
**PREREQUISITE: TMD 225**  
 Study of function of a manufacturing environment to design production tools such as fixtures, gauges, dies, and clamping devices. Use of microcomputer provides experience in computer-aided design and other types of software for engineering problem solving.

**345** **Three Credits**  
**MECHANICS II: STRENGTH OF MATERIALS**  
**PREREQUISITE: TMD 225**  
**COREQUISITE: TMD 345L**  
 Analysis of structures, utilizing principles of Hook's Law; Passions Ratio; shear and moment diagrams, including statically determinate and some statically indeterminate structures.

**345L** **One Credit**  
**MECHANICS II LAB: PROPERTIES OF MATERIALS**  
**PREREQUISITE: TMD 225**  
**COREQUISITE: TMD 345**  
 Experimentation with properties of materials, fabrication characteristics, testing, and inspection. (Meets 2 hrs. per week.)

**348** **Three Credits**  
**FLUID MECHANICS**  
**PREREQUISITE: MTH 184**  
 Introduction to the principles of hydraulics, fluid properties, hydrodynamics, and methods of fluid circuit analysis with applications directed toward various piping systems. Study of the principles for compressible flows, ideal gas, real gas, nozzle design and kinetic theory.

**355** **Three Credits**  
**MACHINE DESIGN**  
**PREREQUISITE: TMD 345**  
 Study of designing screws, fasteners, joints, springs, bearings, and rigid machine components.

**380** **Three Credits**  
**MATERIALS SCIENCE**  
**PREREQUISITE: TMD 145 or Equivalent**  
 Investigation of physics and chemistry of materials as related to their properties and process ability. Incorporates the study of metallurgy, polymers, composites, ceramics, and materials evaluation. Basic competencies developed in use of laboratory equipment used to evaluate structure, properties, and processing of engineering materials.

**448** **Three Credits**  
**THERMODYNAMICS**  
**PREREQUISITE: MTH 184**  
 Study of working ability with first and second laws of thermodynamics, including working fluids and heat engines' cycles.

**450** **Three Credits**  
**INSTRUMENTATION**  
 Introduction to a familiarity with the latest developments in measurement, control, calibrations and analysis of instrumentation from basic theory to its applications, with emphasis on operation, procedure, and principles.

**455** **Three Credits**  
**MECHANICAL DESIGN**  
**PREREQUISITE: TMD 355**  
 Study of design and selection of beams, gears, clutches, brakes, couplings, flexible mechanical elements, including utilization of basic concepts of kinematics.

**470** **Three Credits**  
**SPECIAL PROBLEMS**  
 Individual problem solving of special problems relating to design, electromechanical and manufacturing technology.

## ECONOMICS - ECN

**211 Three Credits**  
**PRINCIPLES OF MICROECONOMICS (E)**  
**PREREQUISITE: Sophomore Standing**

Introduction to microeconomic principles relative to an economic system including supply and demand analysis; types of business organizations; theories of the firm and market models; resource allocation, and factorial distribution.

**212 Three Credits**  
**PRINCIPLES OF MACROECONOMICS (E)**  
**PREREQUISITE: Sophomore Standing**

Introduction to macroeconomic principles relative to an economic system, including economic functions of households, business and government; national income accounting; business cycles; monetary and fiscal institutions and policy as they apply to national economic growth, stabilization goals, and international trade.

## ELECTRONICS TECHNOLOGY - ELT

**111 Three Credits**  
**CIRCUIT ANALYSIS I (EE)**  
**PREREQUISITE: MTH 151**  
**COREQUISITE: ELT 111L**

Introduction to direct current circuits with emphasis on voltage, current, resistance, Ohm's Law, energy and power. Series, parallel, and series-parallel circuits, voltage and current dividers, and Kirchhoff's Law are studied, as well as DC network analysis, network theorem and magnetism circuits.

**111L One Credit**  
**CIRCUIT ANALYSIS I LAB (EE)**  
**PREREQUISITE: MTH 151**  
**COREQUISITE: ELT 111**

Introduction to "live" and computer simulated experiments in DC theory with emphasis on breadboarding electric circuits, using meters, and using electronic simulation software. (Meets 3 hrs. per week..)

**212 Three Credits**  
**CIRCUIT ANALYSIS II (EE)**  
**PREREQUISITES: MTH 153; ELT 111, 111L**  
**COREQUISITE: ELT 212L**

Study of alternating current circuits, with emphasis on alternating current and voltage, capacitors, RC circuits, Inductors, RL circuits, RLC circuits, resonance, AC network analysis, network theorem, and transformers..

**212L One Credit**  
**CIRCUIT ANALYSIS II LAB (EE)**  
**PREREQUISITES: MTH 153; ELT 111, 111L**  
**COREQUISITE: ELT 212**

Introduction to "live" and computer simulated experiments in AC theory with emphasis on breadboarding electric circuits, using meters, and using electronic simulation software. Develops skills in measuring AC circuit parameters. (Meets 3 hrs. per week.)

**211 Three Credits**  
**ELECTRONIC INSTRUMENTS AND MEASUREMENTS (SO)**  
**PREREQUISITES: ELT 113, 113L**

Study of the characteristics, capabilities, limitations, and application of such basic electronic instruments as the Volt-ohm Milliammeter, the digital voltmeter, D-Arsonval meter movement, the general oscilloscope, the audio generator, the resistance bridge, the tube tester, and others.

**211L One Credit**  
**ELECTRONIC INSTRUMENTS AND MEASUREMENTS LAB (SO)**  
**PREREQUISITES: ELT 113, 113L**

Analysis of the characteristics of various electronic test instruments. Develops skills in calculation, metering, signal tracing, waveform analysis. (Meets 3 hrs. per week.)

**213 Three Credits**  
**ELECTRONIC DEVICES I (EE)**  
**PREREQUISITES: ELT 212, 212L; PHY 152, 152L**  
**COREQUISITE: ELT 213L**

Examination of semiconductor junction devices, with emphasis on characteristics and operation of diodes, bipolar junction transistors and field-effect transistors; DC characteristics, biasing, and DC stability.

**213L One Credit**  
**ELECTRONIC DEVICES I LAB (EE)**  
**PREREQUISITES: ELT 212, 212L; PHY 152, 152L**

**COREQUISITE: ELT 213**

Experiments with semiconductor junction devices, with emphasis on characteristics and operation of diodes, bipolar junction transistors and field-effect transistors; DC characteristics, biasing, and DC stability.

**215 Three Credits**  
**CIRCUIT ANALYSIS (SO)**  
**PREREQUISITES: ELT 213, 213L**

Study of systematic analysis of selected alternating current and direct current circuits including audio amplifiers, radio frequency amplifiers, oscillators, detectors, mixers, multivibrators, and power supply circuits.

**310 Three Credits**  
**DIGITAL ELECTRONICS (SO)**  
**PREREQUISITES: ELT 213, 213L**  
**COREQUISITE: ELT 310L**

Study of digital devices and circuits, logic devices, integrated circuits, microprocessor circuits, binary, octal, and hexadecimal.

**310L One Credit**  
**DIGITAL ELECTRONICS LAB (SO)**  
**PREREQUISITES: ELT 213, 213L**  
**COREQUISITE: ELT 310**

Experiments on logic circuits, integrated circuits and microprocessors, circuit and device troubleshooting and analysis. (Meets 3 hrs. per week.)

**313 Three Credits**  
**ELECTRONIC DEVICES II (FO)**  
**PREREQUISITES: ELT 213, 213L**  
**COREQUISITE: ELT 313L**

Examination of power amplifiers, operational amplifiers, active filters, oscillators, communications circuits, voltage regulators, and other semiconductor devices.

**313L One Credit**  
**ELECTRONIC DEVICES II LAB (FO)**  
**PREREQUISITES: ELT 213, 213L**  
**COREQUISITE: ELT 313**

Experiments with power amplifiers, operational amplifiers, active filters, oscillators, communications circuits, voltage regulators, and other semiconductor devices.

**315 Three Credits**  
**ANALOG COMMUNICATION SYSTEMS (FO)**  
**PREREQUISITES: ELT 213, 213L**  
**COREQUISITE: ELT 315L**

Introduction to analog communications technology, with emphasis on theory, operation, design of radio frequency amplifiers and receivers, mixers, oscillators, coupling circuits, transmitters, propagation, antennas and sidebands.

**315L One Credit**  
**ANALOG COMMUNICATION SYSTEMS LAB (FO)**  
**PREREQUISITES: ELT 213, 213L**  
**COREQUISITE: ELT 315**

Construction and testing of analog communications circuits using simulation software; course ends with a hardware design project.

**413 Three Credits**  
**DIGITAL COMMUNICATION SYSTEMS (SO)**  
**PREREQUISITES: ELT 310, 315**

Theory of communications systems utilizing digital signals. Includes coding, multiplexing, digital modulation, information codes, and error detection codes.

**499 Three Credits**  
**SENIOR PROJECT (SO)**  
**PREREQUISITES: ELT 313, 313L**  
**COREQUISITE: ELT 499L**

Selection and completion of a project under faculty supervision conducted as an individual or small-group design project, including determining customer requirements, considering design alternatives, issuing a formal project proposal, and then implementing the proposal. The course concludes with a report and demonstration of functionality of individual hardware and software design. Projects are typical of problems which graduates must solve in their field of employment.

**499L One Credit**  
**SENIOR PROJECT LAB (SO)**  
**PREREQUISITES: ELT 313, 313L**  
**COREQUISITE: ELT 499**

Individual or small group electronic design projects.

## ELEMENTARY EDUCATION – EED/ECE

**110 Two Credits**  
**INTRODUCTION TO THE PROFESSION (FO) (SO)**

Introduction to the various fields of education thought and practice with some emphasis on the historical influences on our present system of education. Study includes the role and place of education in a democracy and principles and practices in elementary and secondary schools. Lectures, discussions, demonstrations, films, field trips, observation and participation in elementary and secondary school classrooms are provided. Conducted as a career decision seminar.

**201 Three Credits**  
**THE AMERICAN SCHOOLS AND THE TEACHING PROFESSION (FO) (SO)**

Orientation to contemporary elementary and secondary schools in America with on-site experiences in diverse classrooms in local schools. Emphasis on issues raised in current reform movements, and upon the changing nature of the teaching profession.

**233 Three Credits**  
**CRITICAL THINKING AND ASSESSMENT SKILLS (FO) (SO)**

Study and application of theories, methods, and materials used in acquiring critical thinking skills, with emphasis on areas of development and reinforcement; include writing, schema concept mapping, and multiple-stimulus reinforcement.

**274 Three Credits**  
**THE STUDY OF YOUNG CHILDREN (FO) (SO)**

Comprehensive introduction to the development of children from conception to nine years, with emphasis on the major theories of development with an examination of physical, cognitive, language and social-emotional development for each chronological period. Requirements are twenty scheduled hours observing and participating in programs for children ages three to nine years (Nursery/Kindergarten through grade four), with emphasis on techniques and strategies.

**324 Three Credits**  
**CHILDREN'S LITERATURE FOR EARLY CHILDHOOD EDUCATION (FO) (SO)**

Study of children's literature (prose and poetry), and an appraisal of its value in meeting the basic needs of the preschool, kindergarten, and primary children. Emphasis on reading aloud, story telling, and choral speaking. Practical experiences with children provided.

**\*360 Three Credits**  
**CURRICULUM AND INSTRUCTION FOR PRIMARY GRADES (Pre-K – 3<sup>rd</sup> Grade) (FO) (SO)**

Preparation for teaching preschool and kindergarten-aged children, with emphasis on three major components: Goal Setting, Content and Methodology. Requirements are twenty scheduled hours observation in a preschool, kindergarten or primary classroom, including planning, designing and implementing activities while video-taping lessons, demonstrations, and classroom simulations.

**362 Three Credits**  
**METHODS AND MATERIALS OF INSTRUCTION IN MATH FOR YOUNG CHILDREN (FO)**

Methods and techniques of teaching mathematics to elementary school children. Includes preparation and practice with materials in classroom situations. Designed especially to meet the needs of elementary school teachers in grades K-6.

**450 Three Credits**  
**TEACHING LITERACY IN THE ELEMENTARY SCHOOL**

Preparation for a lifetime of literacy appreciation, and to diagnose, correct and remediate mild to moderately severe reading difficulties among children between the grades of kindergarten through grade six, providing competencies in teaching phonemic awareness, sound-symbol relationships, phonics instruction, decoding skills, work attack skills, and literature appreciation. Study of basic knowledge of ways to utilize various media to support literacy in the classroom, including technological media instruction (i.e. books, software, Internet sites, audio-tapes and other multimedia methodology).

**\*461 Three Credits**  
**CURRICULUM AND INSTRUCTION FOR EARLY SCHOOL (Grades 4-6) (FO) (SO)**  
**PREREQUISITES: EED 461**

Introduction to first, second, third, and fourth grade curriculum with emphasis on three major components: Goal Setting, Content, and Methodology. Requirements are twenty scheduled hours observation in a first, second, third, or fourth grade classroom, including planning, designing and implementing activities while video-taping lessons, demonstrations, and classroom simulations.

**465** **Three Credits**  
**METHODS AND MATERIALS FOR TEACHING SCIENCE, MATHEMATICS AND TECHNOLOGY (FO)**  
 Study of methods and techniques of teaching mathematics, science and technology to elementary school children, including preparation and practice with materials in classroom situations; designed especially to meet the needs of primary and elementary school teachers in grades NK-G.

**470** **Three Credits**  
**METHODS OF TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL (FO) (SO)**  
 Study of activities, plans, programs and methods that help pre-service teachers prepare children to accept their roles in the community and in the nation. History, geography, economics, psychology, sociology, and values are to be discussed, with emphasis on multisensory, multicultural approach.

**490** **Three Credits**  
**DIAGNOSTIC READING (FO) (SO)**  
**PREREQUISITES: EED 450**  
 Preparation for elementary school student teachers to diagnose and correct mild to moderately severe reading difficulties. Perceptual skills, decoding skills, experiences, language background, mind set, and the reasoning ability of the readers influence comprehension of written symbols. Elementary school students anticipate meaning on the basis of what they have just read. Serious flaw in any major function or part may prevent adequate performance. Emphasis on investigating nature and causes of reading difficulties. Formal and informal instruments and procedures used for early detection and correction of reading problems are investigated.

**495** **Nine Credits**  
**PRACTICUM (E)**  
 Emphasis on designing and implementing developmentally appropriate learning experiences for children ages 2 to 5 in a child-care setting. Study of the role of the child-care director, with an emphasis on administrative tasks.

**499** **Twelve Credits**  
**DIRECTED TEACHING AND SEMINAR (FO) (SO)**  
 Combination of discipline-specific methods course work and actual student teaching. Extensive seminars dealing with the methods in each of the subject areas during the two weeks preceding student teaching, which continue throughout the student teaching experience on a weekly basis. Student teaching is a sixteen-week course.

\* Enrollment requires completion of requirements for admission to teacher education.

## ENGINEERING - EEN

**100** **One Credit**  
**INTRODUCTION TO ELECTRICAL ENGINEERING (FO)**  
 Introduction to basic concepts of electrical engineering, including use of variety of electrical engineering instruments, with emphasis on engineering ethics, elementary design problems.

**102** **Three Credits**  
**ENGINEERING USE OF COMPUTERS (SO)**  
**PREREQUISITE: MTH 184**  
**COREQUISITE: MTH 251**  
 Introduction to use of computers to model systems and to solve engineering problems, including electrical and interdisciplinary problems. Emphasis on numerical models and methods using FORTRAN as well as roots of equations, matrix operations, integration, etc.

**140** **Three Credits**  
**ENGINEERING DRAWING**  
 Study of orthographic, isometric, and perspective drawing, detail and assembly drawing.

**200** **Three Credits**  
**INTRODUCTION TO ELECTRONICS (FO)**  
**PREREQUISITE: MTH 251**  
**COREQUISITE: MTH 252; EEN 200L**  
 Discussions of basic principles of electronics, diodes and transistors, analog circuits and op-amps, digital logic and circuits, electronic instruments, transducer interfaces, data acquisition systems, filtering and processing statistical treatment of data.

**200L** **One Credit**  
**INTRODUCTION TO ELECTRONICS LABORATORY (FO)**  
**COREQUISITE: EEN 200**  
 Laboratory experience of basic principles of electronics.

**201** **Three Credits**  
**ELECTRICAL NETWORK THEORY I (EE)**  
**PREREQUISITE: PHY 251**  
**COREQUISITE: MTH 251**  
 Analysis of electrical networks in terms of the forced response and the natural response. Methods include nodal and mesh analysis, superposition and Thevenin's theorem, from DC to steady state sinusoidal responses, and phasor analysis. SPICE. Design project required.

**201L** **One Credit**  
**ELECTRICAL NETWORK LAB I (EE)**  
**COREQUISITE: EEN 230**  
 Familiarization with oscilloscope, other instruments and test equipment in the experimental verification of basic electric circuit theory. Modeling and validation of models, documentation of experimental work, report preparation. Introductory design project.

**202** **Three Credits**  
**ELECTRICAL NETWORK THEORY II (EE)**  
**PREREQUISITE: EEN 230**  
 Introduction to the application of unit-step as forcing function, power and energy, polyphase circuits, complex frequency and frequency responses, transformers and other two-part networks, linear network analysis using Laplace transform methods, and Fourier analysis, etc., and SPICE. Design project required.

**202L** **One Credit**  
**ELECTRICAL NETWORK LAB II (EE)**  
**COREQUISITE: EEN 232**  
 Familiarization with AC measurements, AC transient circuit experiments, use of good measurement and data collection techniques. Design procedures are developed as appropriate.

**211** **Three Credits**  
**MATERIAL SCIENCE (SO)**  
**PREREQUISITE: CHM 221, PHY 251**  
 Introduction to mechanics of materials design project with emphasis on following topics: atomic order and disorder in solids; single phase materials; molecular phases; ceramic composites, conductors and semiconductors, magnetic, dielectric and optical materials.

**212** **Three Credits**  
**ENGINEERING PROBABILITY & STATISTICS**  
**PREREQUISITE: MTH 252**  
 Applications of random variables and random processes to engineering analysis and design. Cumulative and probability density functions; error function; central limit theorem; finite samples; auto correlation; power spectral density; effect of filters on digital data. Probabilistic and statistical design of systems required.

**231** **Three Credits**  
**DIGITAL ELECTRONICS LOGIC DESIGN (EE)**  
 Study of number systems, binary arithmetic and codes, Boolean algebraic simplification, Quine-McCluskey method, and Karnaugh Maps, Diode and transistor logic flip-flops, sequential networks, state tables, state assignments, etc.

**301** **Three Credits**  
**ENGINEERING ELECTRONICS I (EE)**  
**PREREQUISITE: EEN 232**  
 Introduction to the theory and application of electronic devices; linear equivalent circuits, amplifier and bias considerations, frequency response of amplifiers, and integrated circuits, as well as the concept of electronic circuit design to meet prescribed specifications. Computer modeling of this employing SPICE or its equivalent.

**301L** **One Credit**  
**ENGINEERING ELECTRONICS LAB I (EE)**  
**COREQUISITE: EEN 309**  
 Laboratory practical examination, project, report preparation, and oral presentation required. Major emphasis is directed toward electronic circuit design.

**302** **Three Credits**  
**ENGINEERING ELECTRONICS II (SO)**  
**PREREQUISITE: EEN 309**  
 Equivalent circuits of devices, "H" parameters, frequency and transient response of small signal amplifiers, multistage amplifiers, feedback in electronic circuits, power amplifiers and a more advanced treatment of linear integrated circuits. Computer modeling of electronic systems using SPICE or its equivalent; project required.

**302L** **One Credit**  
**ENGINEERING ELECTRONICS LAB II (SO)**  
**COREQUISITE: EEN 310**  
 Frequency and transient response of amplifiers, feedback amplifiers, oscillators, power amplifiers, and linear integrated circuits, including operational amplifiers, with emphasis on

electronic design. Laboratory practical examination, project, report preparations, and oral presentation required.

**305** **Three Credits**  
**SIGNALS & SYSTEMS I (FO)**  
**PREREQUISITES: EEN 232; MTH 372**  
 Introduction to system representations and analysis; representation of signals, methods of linear system analysis using convolution, Fourier series and transforms, and Z-transforms. Formulation and solution of state-variable equations as well as introduction to amplitude and analog pulse modulation. Design project required.

**331** **Three Credits**  
**MICROPROCESSORS (FO)**  
**PREREQUISITES: EEN 141, 444; Permission of the Instructor**  
 Introduction to the structure of microprocessors and microcomputers. Representation of information in the computer logic and storage devices. Processor structure registers, transfer of information, and control programming in microcomputers. I/O structure and auxiliary electronics. Interrupt structures, direct memory access. LSI and its implication for microcomputers. Arithmetic operations. Different microcomputer architectures.

**331L** **One Credit**  
**MICROPROCESSORS LAB (FO)**  
**COREQUISITE: EEN 448**  
 Procedures for reliable digital microcomputer design; understanding manufacturer's specifications, use of special test equipment; characteristics of consumer SSI, MSI, and LSI devices; assembling, testing, and simulation of design, construction procedures, several single-period laboratory exercises, several design projects, and application of microprocessor in digital design.

**334** **Three Credits**  
**DIGITAL INTEGRATED CIRCUITS**  
**PREREQUISITES: EEN 231, EEN 301**  
**COREQUISITE: EEN 302**  
 Study of digital CMOS circuits; MOSFET transistor; combinational circuits; sequential circuits; design simple digital gates and circuits at the transistor level; simulate designed circuits to verify performance.

**342** **Three Credits**  
**ELECTROMAGNETIC FIELD THEORY**  
**PREREQUISITES: MTH 372; EEN 232; PHY 250, 251**  
 Study of static, electric, and magnetic fields as well as introduction to Maxwell's equation and applications.

**351** **Three Credits**  
**COMMUNICATIONS ENGINEERING I (SO)**  
**PREREQUISITE: EEN 384**  
 Study of amplitude, frequency, and phase, including modulation, sampling and pulse modulation; time division, multiplexing detection and frequency mixing, filters, receivers, transmitters and noise analysis.

**411** **Three Credits**  
**ENGINEERING ECONOMICS (EE)**  
**PREREQUISITE: MTH 251**  
 Introduction to economic principles and techniques used in making decisions about the acquisition and retirement of capital goods by government and industry. Special emphasis on methods of analysis based on the mathematics of compound interest. Study of time value of money, annual cost, present worth, future value, capitalized cost along with break-even analysis, valuation, and depreciation, and ethics in economics.

**441** **One Credit**  
**ELECTRONICS ENGINEERING SEMINAR**  
**PREREQUISITE: Senior Standing in Electronics Engineering or Approval of the Instructor**  
 Introduction to various aspects of engineering practice and engineering ethics.

**443** **Three credits**  
**PULSE AND WAVE SHAPING ELECTRONICS DESIGN**  
**PREREQUISITE: EEN 312**  
 Study of linear and non-linear wave shaping techniques, and logic families and their traits, such as fanout, power dissipation, noise immunity and speed, bipolar multivibrators, negative resistance devices, sweep waveforms and D/A and A/D converters. Active filters. Design project required.

**471** **Three Credits**  
**CONTROL SYSTEMS ANALYSIS (FO)**  
**PREREQUISITES: EEN 302, 302L**  
 Introduction to control systems; mathematical models; feedback control systems characteristics and stability, root locus, frequency responses; stability in the frequency domain analysis.

**490** **Three Credits**  
**ADVANCED TOPICS IN ELECTRONICS ENGINEERING**  
**PREREQUISITE:** Senior Status and Approval of Instructor  
 Introduction to advanced topics in any area of electronics engineering. Project or research paper may be required.

**498** **One Credit**  
**SENIOR PROJECT (FO)**  
**PREREQUISITE:** Senior Standing in Electronic Engineering, Consent of the Instructor  
 Planning, designing, and executing various experimental projects. Emphasis on use of computer simulation to aid in the design process. Preparation of report and oral presentation is required. Formal design topics covered.

**499** **Two Credits**  
**SENIOR PROJECT STAGE II (SO)**  
**PREREQUISITE:** EEN 498  
 Final hardware, software of design project completed. Presentation and final report required.

## ENGLISH - ENG

**100** **Four Credits**  
**INTRODUCTION TO COLLEGE COMMUNICATION (SI)**  
 Focus on reading comprehension, vocabulary development, sentence structure, standard usage and punctuation, paragraph and essay development. Course designed for the student whose SAT scores and high-school GPA results indicate a need for skills enhancement in reading, writing or concomitant literacy skills.

**100E** **Three Credits**  
**ENGLISH AS A SECOND LANGUAGE (SI)**  
 Preparation for foreign students to attain freshman entry-level writing proficiency. Students who score less than 500 on the TOEFL must enroll in this course. Offered in lieu of ENG 100.

**101** **Three Credits**  
**COMMUNICATION SKILLS I (E)**  
**PREREQUISITE:** Satisfactory Scoring on Placement Examination or Promotion from ENG 100  
 Experiences in multiple-draft writing of expository themes through the writing-process approach. Focus on thesis analysis and development, and analyses of audience, purpose, tone, style, and diction. Selected readings included.

**102** **Three Credits**  
**COMMUNICATION SKILLS II (E)**  
**PREREQUISITE:** ENG 101  
 Development of critical and analytical skills in communication which provides experience in argumentative reading and writing and in techniques of research.

**108** **Three Credits**  
**ANALYTICAL REASONING, WRITING AND COMPREHENSION I (SI)**  
**PREREQUISITE:** Restricted to AROTC Cadets or students enrolled in a military science course.  
 Introduction to vocabulary building, literal and inferential comprehension, reading, writing and the development of critical reading and cognitive skills.

**109** **Three Credits**  
**ANALYTICAL REASONING, WRITING AND COMPREHENSION II (SI)**  
**PREREQUISITE:** Restricted to AROTC Cadets or students enrolled in a military science course.  
 Emphasis on the application of comprehension and cognitive skills.

**111** **Two Credits**  
**INTRODUCTION TO LANGUAGE STUDIES (SI)**  
 Orientation for various facets of written and oral language studies or to students' respective sequences of study, and to some related professional positions.

**114** **Two Credits**  
**TECHNIQUES OF VOCABULARY BUILDING (EE)**  
 Introduction to the study of language with emphasis on processes of vocabulary building and some techniques of vocabulary expansion.

**NOTE: PREREQUISITES TO ALL COURSES ABOVE THE ENG 114 LEVEL, UNLESS OTHERWISE INDICATED, ARE ENG 101 AND ENG 102.**

**203** **Three Credits**  
**ADVANCED COMMUNICATION SKILLS (E)**  
**PREREQUISITE:** ENG 102  
 Emphasis on the writing of analytical essays based on selected readings. Researched, documented exposition stressed.

**207** **Three Credits**  
**INTRODUCTION TO WORLD LITERATURE (E)**  
 Close attention to works selected from world literature for their exemplary literary qualities and their bearing upon our cultural heritage.

**210** **Three Credits**  
**PRACTICAL ENGLISH GRAMMAR (E)**  
 Structure of the English language and the principles underlying both sentence construction and standard English usage, establishing the connection between grammar and writing.

**214** **Two/Three Credits**  
**INTRODUCTION TO CREATIVE WRITING (FO)**  
 Introduction to the process and practice of imaginative writing in the various genres. Brief study of the marketing of manuscripts. Practical experience in both writing and editing.

**215** **Three Credits**  
**WRITING SHORT STORIES (SI)**  
 Introduction to the art of short story writing with emphasis on the elements of a story as well as models of classic literature. Students are expected to understand the construction of short fiction.

**218** **Three Credits**  
**WRITING POETRY I (O)**  
 Introduction to the art of poetry writing with emphasis on the elements of poetry as well as models of classic literature. Students are expected to understand the construction of poems.

**286** **Three Credits**  
**ADVANCED COMPOSITION (E)**  
 Principles and techniques of grammar, rhetoric and logic with emphasis on writing about literature and the nature and function of the English language. . Required of all English majors in lieu of ENG 203.

**303** **Three Credits**  
**PROFESSIONAL AND TECHNICAL WRITING (E)**  
 Discipline-specific course designed to provide writing experiences across the curriculum.

**306** **Three Credits**  
**INTRODUCTION TO LITERARY CRITICISM (E)**  
 Survey of various critical approaches (biographical, sociological, mythical, structural, psychological, etc.) and their application to specific works and genres.

**310** **Three Credits**  
**LITERATURE OF THE RENAISSANCE PERIOD**  
 Poetry and prose of the English Renaissance with emphasis on Spenser, Sidney, and the non-dramatic poetry of Shakespeare.

**312** **Three Credits**  
**WRITING IN A GENRE (FO)**  
 Introduction to the process and practice of imaginative writing in a specific genre or genres to be determined by the instructor. Study of works by important genre authors and poets. Practical experience in writing, editing, manuscript preparation, and marketing.

**313** **Three Credits**  
**WRITING AUTOBIOGRAPHY AND MEMOIR (SI)**  
 Introduction to the genres of autobiography and memoir. Experience in reading and writing samples of each genre as well as demonstrating critiques in a workshop atmosphere. Emphasis on organizing and shaping perceptions of students' lives into coherent form, both for self-expression and for publication.

**315** **Three Credits**  
**SURVEY OF ENGLISH LITERATURE I (FO)**  
 Study of the major authors and major works in English literature from the Anglo-Saxon period through the Eighteenth Century.

**316** **Three Credits**  
**SURVEY OF ENGLISH LITERATURE II (SO)**  
 Study of the major authors and major works in English literature from the Romantic period through the Modern Age.

**317** **Three Credits**  
**THE BIBLE AS LITERATURE (FO)**  
 Reading selections from the Old and New Testaments and the Apocrypha with emphasis on their literary aspects.

**318** **Three Credits**  
**WRITING POETRY II (O)**  
**PREREQUISITE:** ENG 218  
 Development of an advanced knowledge of self-expression and creativity, as well as the use of poetic devices such as

meter, rhythm, imagery, and symbolism in traditional and contemporary forms.

**319** **Three Credits**  
**SEVENTEENTH CENTURY ENGLISH LITERATURE**  
 Critical study of Milton, Donne, the metaphysical and cavalier poets, the Jacobean dramatists, and prose writings of Burton and Brown.

**320** **Two/Three Credits**  
**THE ART OF POETRY**  
 Analytical study of poetry with emphasis on meaning, technique, and form.

**336** **Three Credits**  
**MODERN ENGLISH AND AMERICAN LITERATURE (SI)**  
 Study of the major writers of the twentieth century with emphasis on main currents of thought within the century.

**341** **Three Credits**  
**AMERICAN LITERATURE I (FO)**  
 Survey of American Literature from the Colonial Period to the Civil War.

**342** **Three Credits**  
**AMERICAN LITERATURE II (SO) (SS)**  
 Survey of American Literature from the Civil War to the present.

**350** **Three Credits**  
**SEMINAR IN LITERARY ANALYSIS AND INTERPRETATION (EE)**  
**PREREQUISITES:** ENG-207 ENG-210 ENG-286 ENG-306  
 Offers students in-depth instruction in the skills of analysis and interpretation of literary texts to prepare them for thesis-writing. Students practice close reading and analysis of texts in different genres and learn to develop thesis-driven essays about literature.

**383** **Three Credits**  
**AFRICAN-AMERICAN LITERATURE (E)**  
**PREREQUISITE:** Junior Standing or Permission of Instructor.  
 Survey of African-American literature, including selected African-American writers from slavery to the present time.

**384** **Three Credits**  
**AFRICAN-AMERICAN LITERATURE: POETRY (SO)**  
 Study of selected works of major African-American poets with emphasis on dominant themes and forms, and attention to the historical and literary background of the poetry.

**385** **Three Credits**  
**AFRICAN-AMERICAN LITERATURE: FICTION (FO)**  
 Development of black American fiction from 1853 to the present. Includes social and historical conditions of African-Americans as reflected in their fiction, as well as the major literary trends of the writings.

**387** **Three Credits**  
**THE TEACHING OF ENGLISH IN SECONDARY SCHOOLS (SI)**  
**PREREQUISITE:** Junior or Senior Standing  
 Study of methods and materials in the teaching of English literature, language, composition, and grammar.

**400/ 500** **Three Credits**  
**ADVANCED PLACEMENT ENGLISH IN THE HIGH SCHOOL**  
**PREREQUISITE:** Senior or graduate level  
 Study of the Advanced Placement Program in English, with attention to establishing an AP program, designing and implementing an AP curriculum, and designing, developing, and teaching an AP course.

**410** **Three Credits**  
**HISTORY OF THE ENGLISH LANGUAGE (FO)**  
 Structure and development of the language in England and America with emphasis on historical grammar and linguistic changes with the cultural factors involved.

**412** **Three Credits**  
**CHAUCER (FO)**  
 Designed to provide a general acquaintance with The Canterbury Tales and Troilus and Criseyde and some of Chaucer's minor poems.

**413** **Three Credits**  
**SHAKESPEARE (EE)**  
 General survey of Shakespeare's dramatic career, with readings of a selected number of his plays and their study against the background of Elizabethan social, political, and philosophical ideas.



**416 Milton (SI) Three Credits**

Study of the chief poems and prose works of Milton with emphasis on Milton's artistic merits and on his religious, scientific, and political ideas.

**419/ 519 Contemporary American English Grammar (EE) Three Credits**

Survey of the function of American English grammar in modern communication with emphasis on usage, dialectology, stylistics, and aesthetics.

**420/ 520 Black English, Dialects, and Linguistic Universals (SI) Three credits**

**PREREQUISITE: Senior or graduate level**  
Introduction and historical overview of linguistic universals and language variations including the structure and development of American speech and language styles, with emphasis on Black English.

**421 Eighteenth Century English Literature Three Credits**

Introduction to Addison, Steele, Dryden, Swift, Pope, Johnson, and their contemporaries.

**430 Romantic Writers (SI) Three Credits**

Critical study of the development of the Romantic Movement. Special emphasis upon Wordsworth, Coleridge, Byron, Shelly, and Keats.

**431 Studies in the Novel Three Credits**

Study of selected novels of the nineteenth and twentieth centuries from the continent, England, and the Americas.

**432 African and African-American Novel (SI) Three Credits**

**PREREQUISITES: ENG 383 or Permission of Instructor**  
Detailed study of selected African and African-American novelists and their works.

**433 African and African-American Biography and Autobiography (SI) Three Credits**

**PREREQUISITES: ENG 383 or permission of instructor**  
Study of selected biographies and autobiographies of noted Africans and African-Americans, including Malcolm X, Richard Wright, Alex Haley, and Wole Soyinka.

**435 Victorian Literature (SI) Three Credits**

Study of representative British writers from 1837-1901.

**440 Seminar in African and African-American Literature (SO) Three Credits**

**PREREQUISITES: ENG 383 or Permission of Instructor**  
Study of selected works and authors in the African and African-American tradition.

**449, COM 549 Teaching of Composition (FO) Three Credits**

**PREREQUISITES: Senior or Graduate Level**  
Study of the traditional and contemporary theories, practices, and research that inform the teaching of composition from late elementary school through freshman English.

**450 Research Seminar and Senior Thesis (EE) Three Credits**

Independent research on a topic selected by the student, approved by the departmental advisor and completed under the guidance of the advisor.

**452 Literature for Children (FS) Three Credits**

Preparation for pre-service teachers in becoming acquainted with and capable of evaluating the great wealth of trade books (Library Literature) available to today's children ages 0-12. Emphasis on the issues that result from the trends in publishing, selecting, and using these literary selections.

**453 Women's Literature and Contemporary Issues Three Credits**

**PREREQUISITE: ENG 207 or permission of instructor.**  
Survey of relevant contemporary social issues in women's literature of various ethnic groups. Issues relate to domestic battering, rape, child abuse/incest/pornography, prostitution, and genital mutilation.

**454 Young Adult Literature (EE) Three Credits**

**PREREQUISITE: Junior standing or permission of instructor.**

Survey of the reading needs and preferences of adolescent readers with emphasis on integrating literature throughout the curriculum and utilizing methods of maintaining the integral connection between reading and writing.

**455 Literature and Popular Culture (FO) Three Credits**

Introduction to the systematic study of popular media, focusing on the development of selected print, film, and video genres.

**456 Women's Studies: Myths and Images (SO) Three Credits**

Exploration of the universal myths that promote certain images of women that relate to their biological function in modern fiction written by women.

**457 Multi-Ethnic Fiction (SI) Three Credits**

Introduction to the interracial fiction of various ethnic groups as they relate to the dominant culture in America with emphasis on specific beliefs, attitudes, values, and stereotypes that affirm the myth of the melting-pot concept.

**458 Southern Black Female Aesthetic Three Credits**

Introduction to the Southern black female aesthetic in black women's oral and written expressions, emphasizing an Afrocentric cultural continuum as well as the criteria identifying their aesthetic and the racial, sexual politics influencing their cultural expressions.

**459 International Women's Literature (SI) Three Credits**

**PREREQUISITE: ENG 207 or permission of instructor**  
Examination of fiction, poetry, diaries, journals, letters, interviews, and feminist essays by women writers from the international community, including a study of new conceptual and psychological models of women which provide new frameworks for critical interpretation and judgment.

**460/ 550 Assessment and Evaluation of Writing (SO) Three Credits**

Study of writing assessment practices with an emphasis on the variables of composition assessment, scalar measures of composition, large-scale assessment and classroom assessment methods, and alternative assessment techniques. Designed for the student teacher of composition at secondary and post-secondary levels.

**465/ 565 Special Topics in Literature and Language One, Two, Three Credits**

Engaging in modern literary or linguistic topics by using a variety of perspectives, disciplines, and related themes.

**475/COM 575 History of Rhetoric Three Credits**

**PREREQUISITES: Senior or graduate level**  
Study of the essential texts that form the Western rhetorical tradition from its origins in Greco-Roman times through Modernity with an inclusive treatment of the contributions of African-Americans and women.

**480 American Folklore and Literature (SI) Three Credits**

Examination of the subtle and complex relationship between the folklore and the literature of the United States, using a functional and contextual approach; special attention will be given to the kinds of folklore field data.

## ENTREPRENEURIAL STUDIES - ENT

**364 Managing the Family Business (SI) Three Credits**

**PREREQUISITES: MGT 365; FNC 360**  
Discussion of business management concepts on the family business environment which examines the stages of the family enterprise with emphasis on managing people, change and conflict, as well as strategic planning and organizational tools applicable to the family business, evaluation of situations and problems in a family business through the analysis of cases; and realize the career paths and opportunities.

**386 New Venture Finance (FO) Three Credits**

**PREREQUISITES: FNC 360**  
In-depth analysis of the process of funding an entrepreneurial venture with a critical examination of the decisions and alternatives on the basis on their impact on firm value. Exploration of the techniques used in the areas of evaluation, business plan development, deal structure, and venture harvest. Discussions of seed and growth capital from sources

such as individuals, angel funds, venture capita, investment banks, government, and commercial banks. Study of how entrepreneurs identify and commit the necessary resources to create and fund ventures.

**387 Introduction to Entrepreneurship (E) Three Credits**

**PREREQUISITES: MKG 366; FNC 360; MGT 365**  
Introduction to the important characteristics of entrepreneurs that relate to successful business start-ups, with emphasis on self-evaluation, effective decision-making skills, and practical aspects of a successful business start-up. A requirement is a written assignment on business plans based on a potential future business venture.

**465 Small Business Management (FO) Three Credits**

**PREREQUISITE: ENT 387**  
Integration of entrepreneurial topics into comprehensive plans and/or suggestions for starting a business and solving problems. Requirements include completion of the business plans and presentation for approval, participation in a small business computer simulation, and learning more about entrepreneurs and small business management through classroom work.

**467 Contemporary Topics in Entrepreneurship Three Credits**

**PREREQUISITES: ENT 387; Senior Standing**  
Study of the latest concepts, theories, and applications in all aspects of entrepreneurship and small business management.

**476 Franchising (SI) Three Credits**

**PREREQUISITES: MKG 366; Senior Standing**  
Introduction to the principles and strategies involved in starting and managing a franchise operation, with emphasis on the knowledge of franchise ability, the merits and demerits of franchising, and the rights and obligations of parties involved in franchising.

**482 Managing Growing Ventures (SI) Three Credits**

**PREREQUISITE: ENT 386**  
Study of managing growing companies in a professional manner while maintaining the entrepreneurial spirit. Emphasis on financing growth, measuring economic performance, and obtaining information for management decision making; management control systems for innovative companies; short-and long-run planning in owner managed businesses; and entrepreneurship and management.

**484 Creativity Innovation and Change Management (SI) Three Credits**

**PREREQUISITE: ENT 387**  
Foundation for creating or finding new business opportunities, technologies or processes. Study of market research, competitive intelligence, and managing change, with emphasis on evaluation, planning, and leadership while distinguishing between need or idea and the opportunity.

**486 Entrepreneurship Field Studies (SI) Three Credits**

**PREREQUISITE: ENT 465**  
Experience in working on an entrepreneurial venture with the instructor serving as a coach. Requirements are construction of a business plan and presentation of an assessment of the outcome.

**495 International Entrepreneurship (SI) Three Credits**

**PREREQUISITES: FNC 360 and MKG 366**  
Analysis of the operations and the managerial strategies of various types of businesses in the international setting. Emphasis on the intellectual, political, social, economic, and moral issues that business and government leaders must face in dealing with international business problems.

## EXERCISE SCIENCE - EXS

**170 Introduction to Exercise Science (FO) Three Credits**

Review of the health related professional, the impact exercise has on a healthy lifestyle, and as a disease prevention tool. Exercise testing, basic exercise principles, and their use in fitness and rehabilitation are addressed.

**237 Care and Prevention of Athletic Injuries (SO) Three Credits**

**PREREQUISITES: PED 287, 287L, 288, 288L**  
Theoretical foundation for care and prevention of athletic injuries, while addressing anatomy, medical conditions, and evaluation techniques with emphasis on basic first aid skills.

**265, 266** **Two Credits Each**  
**THERAPEUTIC EXERCISES AND SPORTS (SO)**  
 Introduction to therapeutic physical activities and sports that afford the disabled success, recognition, and approval among a variety of handicapping conditions.

**355** **Three Credits**  
**ANATOMICAL KINESIOLOGY (FO)**  
**PREREQUISITES:** PED 287, 287L, 288, 288L, or BIO 165, 166 (Lab Fee: \$30)  
 Study of anatomical terminology and gross human osteology, arthorology, mycology, neurology, and angiology.

**356** **Three Credits**  
**BIOMECHANICS OF HUMAN MOTION (SO)**  
**PREREQUISITES:** EXS 355; MTH 153; PHY 152  
 Analysis of the functions and mechanics of human motion as applied to human movement with emphasis on qualitative movement analysis to improve performance and prevent injury.

**357** **Three Credits**  
**ORGANIZATION AND MANAGEMENT OF EXERCISE SCIENCE (FO)**  
**PREREQUISITES:** EXS 170  
 Introduction to the basic processes of administration and management in health professions that afford a variety of broad-based managerial functions and detailed administrative actions for students.

**363** **Two Credits**  
**CLINICAL ASPECTS OF AGING (FO)**  
**PREREQUISITE:** EXS 447  
 Application of the principle of fitness evaluation and prescription to the older adult population with emphasis on physiology of aging, motivational techniques, evaluation and programming with attention to chronic conditions.

**364** **Two Credits**  
**TECHNIQUES OF WEIGHT TRAINING & CONDITIONING (SO)**  
**PREREQUISITES:** PED 287, 287L, 288, 288L or BIO 165, 166  
 Introduction to the various areas of resistive exercise training, inclusive of isokinetic, isotonic, and isometric routines along with Biomechanical and physiological benefits associated with each.

**369** **Three Credits**  
**RESEARCH METHODS AND STATISTICAL EVALUATION (FO)**  
**PREREQUISITE:** MTH 153  
 Introduction to the role of valid, reliable and objective testing methods in evaluation and decision making. Basic study design and statistical method prepare the student to make fundamental decisions using norm and criterion referenced criteria.

**430** **Three Credits**  
**NEUROLOGICAL AND PATHOLOGICAL FOUNDATIONS IN EXERCISE SCIENCE (FO)**  
**PREREQUISITES:** EXS 447, 447L  
 Survey of illnesses relating to neurological dysfunction, and the nature and physiological consequence of disease processes for healthy and diseased populations.

**445** **Three Credits**  
**THERAPEUTIC MODALITIES (FO)**  
**PREREQUISITES:** EXS 355, 356, 447, 447L  
 Introduction to the body's physiological response to the various clinical techniques and therapeutic modalities used in the rehabilitation process.

**447** **Three Credits**  
**PHYSIOLOGICAL BASES OF EXERCISE (SO)**  
**PREREQUISITES:** PED 287, 287L, 288, 288L or BIO 165, 166  
 Study of physiological responses, adjustments, and adaptations to the acute stress of exercise and physical activity and the chronic stress of physical training, including an introduction to the physiological basis of exercise.

**447L** **One Credit**  
**PHYSIOLOGICAL BASIS OF EXERCISE LAB (SO)**  
**COREQUISITE:** EXS 447  
 Basic laboratory procedures and tests to provide experience in subject recruitment, data collection, and abstract presentation.

**483** **Three Credits**  
**CLINICAL KINESIOLOGY I (FO)**  
**PREREQUISITE:** EXS 355, 356  
 Practical application of the knowledge with emphasis on physical musculoskeletal function, neurological involvement, goniometry, anthropometry, and gait analysis.

**484** **Three Credits**  
**CLINICAL KINESIOLOGY II (SO)**  
**PREREQUISITE:** EXS 355, 356; or PED 356  
 Introduction to the development of rehabilitation as an integral part of comprehensive medical care and its application to restore persons with physical and emotional impairments to the optimal level of functional independence. Consideration of neurological dysfunction/rehabilitation, orthopedic/rehabilitation, prosthetics, orthotics, respiratory and cardiac dysfunction.

**489** **Three Credits**  
**ADVANCED ATHLETIC TRAINING (SO)**  
**PREREQUISITE:** EXS 237  
 Introduction to injury prevention techniques, specific athletic injuries, and the techniques used to enhance the healing process.

**493 C and D** **Twelve Credits**  
**CLINICAL INTERNSHIP IN EXERCISE SCIENCE (FO) (SO)**  
**PREREQUISITES:** Completion of all Didactic Course Work  
 Practicum experiences require 1,000 hours of supervised field work conducted at an approved setting which provide the opportunity to utilize and personalize knowledge gained in the classroom in a practical environment.

## FASHION DESIGN/ MERCHANDISING - FDM

**142** **Three Credits**  
**INTRODUCTION TO FASHION INDUSTRY (FO)**  
 Survey of Fashion Industry processes and procedures as related to the provision of apparel and related items for individuals and their families. Opportunity provided for study of fashion-related careers.

**143** **Three Credits**  
**PRINCIPLES OF APPAREL DESIGN AND PRODUCTION (FO)**  
 Survey of methods and procedures associated with the fit of flat fabrics to the human body.

**\*149** **Two Credits**  
**APPAREL PRODUCTION I (EE)**  
 Study of basic procedures used in the conversion of fabric to acceptable wearing apparel. (Students who demonstrate exceptionally high construction skills may opt to test out of the course).

**\*150** **Two Credits**  
**APPAREL PRODUCTION II (EE)**  
**PREREQUISITE:** FDM 149 or equivalent  
 Emphasis on perfecting sewing skills using more challenging patterns and fabrics to create quality garments with an introduction to simple pattern modification techniques.

**151** **One Credit**  
**FRESHMAN REVIEW (SO)**  
**PREREQUISITES:** FDM 149, 150  
 Evaluation of mastery of garment construction techniques. Special assignments may be prescribed for persons needing additional skill development.

**210** **Three Credits**  
**SOCIO-PSYCHOLOGICAL ASPECTS OF CLOTHING (SO)**  
 Survey of socio-psychological and economic factors affecting selection and use of clothing by individuals and families.

**\*250** **Three Credits**  
**PATTERNMAKING I (EE)**  
**PREREQUISITES:** FDM 149, 150  
 Using draping, flat pattern, and drafting procedures to develop and construct one original muslin garment in half or full size.

**\*251** **Three Credits**  
**DESIGN STUDIO I (EE)**  
**PREREQUISITES:** FDM 149, 150, 250  
 Introduction to design research. Completion of a full-size, original designed garment or garment ensemble is required.

**253** **One Credit**  
**SOPHOMORE DESIGN REVIEW (EE)**  
**COREQUISITE:** FDM 251  
 Evaluation of competency in the application of apparel line development theory.

**334** **Three Credits**  
**TEXTILES (FO)**  
 Study of factors that influence the tactile behaviors of natural and man-made fabrics during garment design, manufacture and wear with emphasis on fiber/fabric properties, production, and finish.

**362** **Three Credits**  
**FASHION FORECASTING & SOURCING (SO)**  
 Explorations in the use of the Internet and other resources to determine trends and sources related to fashion apparel and accessories.

**\*365** **Two Credits**  
**DESIGN STUDIO II (EE)**  
**PREREQUISITE:** FDM 364  
 Studio practice in the creation and production of original fashion apparel using computer applications.

**366** **Three Credits**  
**APPAREL PRODUCTS EVALUATION (EE)**  
**PREREQUISITE:** FDM 149  
 Development of visual and verbal precision in the identification, classification, and evaluation of quality in apparel structures.

**368** **One Credit**  
**JUNIOR DESIGN REVIEW (SO)**  
**COREQUISITE:** FDM 365  
 Evaluation of student progress in documenting the professional portfolio in fashion and accessory design.

**373** **Three Credits**  
**FASHION HISTORY (EE)**  
 Introduction to social, economic, technological, cultural, and aesthetic factors influencing trends in design, merchandising, production, distribution, and consumption of textiles and apparel over time.

**\*387** **Three Credits**  
**VISUAL MERCHANDISING (EE)**  
**PREREQUISITES:** FIA 114, 180  
 Study of merchandising displays and promotion with emphasis on store design, in-store visual display and store windows.

**395P** **Three Credits**  
**FASHION MERCHANDISING PRACTICUM (EE)**  
**PREREQUISITE:** Junior Standing  
 Developing a field experience plan that results in 75 hours of paid employment in an apparel-related agency.

**\*449** **Three Credits**  
**DESIGN COLLECTIONS**  
**PREREQUISITES:** FDM 368; Junior Standing  
 Developing original line of apparel and/or accessory items for one of the major industry apparel categories. A minimum of 5 items must be included.

**454** **Three Credits**  
**CURRENT ISSUES IN FASHION DESIGN/  
MERCHANDISING (EE)**  
**PREREQUISITE:** Senior Standing  
 Seminar course in which emerging issues related to the fashion industry will be explored.

**\*495** **Three Credits**  
**DESIGN STUDIO III**  
**PREREQUISITE:** FDM 449  
 Independent study, with faculty guidance and evaluation, resulting in the spring fashion show or gallery exhibition.

**496** **Three Credits**  
**FASHION MERCHANDISING INTERNSHIP (EE)**  
**PREREQUISITE:** FDM 395  
 Two hundred hours of supervised work experiences in an approved apparel retail agency are required. With faculty approval, plans for this experience may be submitted and the experience completed during summer prior to senior year.

**\*Courses require contact hours equal to twice the credit hours offered.**

## FINANCE - FNC

**310** **Three Credits**  
**RISK MANAGEMENT (SO)**  
**PREREQUISITES:** FNC 360; MKG 366  
 Introduction to the theory of insurance, types of personal and business coverage, and the analysis of business risks and risk-bearing from the standpoint of risk reaction, risk reduction, risk elimination, and risk evaluation. Emphasis on the fundamental unifying elements of risk and insurance.

**360** **Three Credits**  
**CORPORATE FINANCE (E)**  
**PREREQUISITES:** ACC 202; ECN 212  
 Study of the major finance functions of modern corporations, including the need for funds to finance the acquisition of various assets such as receivables, inventories, and plant and equipment; the alternative sources of funds available including

short-term and long-term, internal and external analysis of the firm's capital structure, and alternative long-term financing sources and techniques. Analysis of the ethics involved in various areas of finance and international finance topics.

**362** **INVESTMENTS (EE)** **Three Credits**  
**PREREQUISITE:** FNC 360 or permission from department  
 Introduction to investment analysis which analyzes the various types of business and public securities and portfolio management concepts, including international diversification. Study of the process by which a growing small business can issue stock and other securities to the public.

**363** **FINANCIAL INSTITUTIONS (EE)** **Three Credits**  
**PREREQUISITE:** FNC 360  
 Fundamentals of financial institutions with emphasis on the actual operations and business of commercial banks, mutual savings banks, savings and loan associations, credit unions and other financial institutions.

**372** **ENTREPRENEURIAL FINANCE (SI)** **Three Credits**  
**PREREQUISITE:** FNC 360  
 Overview of entrepreneurial financial management which establishes a foundation for understanding of the basic financial techniques for an owner and owner manager in the small business environment with emphasis on the sources of funding, financial planning and forecasting, cash flow analysis, buy/lease decisions, financing of franchising, and the home office, among other topics. International opportunities for small businesses and financial instruments of global businesses are introduced.

**380** **PRINCIPLES OF REAL ESTATE (FO)** **Three Credits**  
**PREREQUISITE:** FNC 360 and Junior Standing  
 Analysis of the fundamental law of real property with special emphasis on the changing character of the urban economy, buildings and land use, and their values.

**395** **INTRODUCTION TO PERSONAL FINANCIAL PLANNING (EE)** **Three Credits**  
**PREREQUISITES:** ECN 211, 212  
 Study of professional manuals in personal financial planning.

**474** **INTERMEDIATE FINANCIAL MANAGEMENT (EE)** **Three Credits**  
**PREREQUISITES:** FNC 360  
 This course builds on and reinforces concepts that were introduced in FNC 360. Among the topics covered are risk measurement and management, capital market theory, capital budgeting, valuation, capital structure theory, and dividend policy. This course concentrates on quantitative techniques and financial theory and integrates the discussion of globalization and ethics throughout the course.

**475** **TAXES, RETIREMENT, PLANNING AND ESTATE PLANNING** **Three Credits**  
**PREREQUISITES:** FNC 363, 395  
 Study of professional manuals in personal financial planning.

**488** **INTERNATIONAL FINANCE (EE)** **Three Credits**  
**PREREQUISITES:** ECN 212; FNC 360; Junior Standing  
 Analysis of the international monetary system and multinational firms. Evaluation of the environment of direct foreign investments with emphasis on capital budgeting, working capital management, and sources and instruments of international fund remittances.

**490** **PORTFOLIO MANAGEMENT** **Three Credits**  
**PREREQUISITE:** FNC 362  
 Introduction to modern portfolio theory and management. Based on financial techniques for individual and institutional clients, including professional ethics and advanced topics in capital market theory. (Capstone course in investment management.)

**499** **CASES IN FINANCIAL MANAGEMENT (EE)** **Three Credits**  
**PREREQUISITE:** FNC 474  
 This is a capstone course for finance majors and is designed to integrate all the material offered under the finance curriculum and reinforce material learned in previous courses. The course uses lectures, class discussion, and case analysis to allow students to synthesize previous course work. Students will work in teams to analyze problems using current technology to resolve financial issues in corporate financial management.

## FINE ARTS - FIA

**114** **BASIC DESIGN (FO)** **Three Credits**  
 Study of basic elements of two-dimensional design and visual communication using a variety of media. Emphasis on visual problem-solving and critical decision making.

**115** **BASIC DESIGN II (SO)** **Three Credits**  
 Exploration of color using the basic elements and principles of two-dimensional design, including color theory and the practical application of theory in solving visual problems using a variety of media.

**116** **BASIC DESIGN III (EE)** **Three Credits**  
 Exploration of the relationship between form, space, and ideas in three-dimensional design. The sequence of projects begins with simple constructions and structures, then evolves to an investigation of complex three-dimensional form.

**120** **DRAWING (FO)** **Three Credits**  
 Development of ability to see and record through the use of a variety of drawing media, providing knowledge of line, shape, light and shade, texture, composition, and perspective. Emphasis on drawing in still life, the live model, and outdoor sketching.

**121** **DRAWING (SO)** **Three Credits**  
**PREREQUISITE:** FIA 120  
 Development of ability to see and record through the use of a variety of drawing media, providing knowledge of line, shape, light and shade, texture, composition, and perspective. Emphasis on drawing in still life, the live model, and outdoor sketching.

**140** **CERAMICS (FO)** **Three Credits**  
 Introduction to modeling and sculpturing of tiles, panels, plaques, small figures in high and low relief, and in the round from plastic materials, casting in plaster, coiling, building, pressing and decorating pottery.

**141** **CERAMICS (SO)** **Three Credits**  
**PREREQUISITE:** FIA 140  
 Introduction to modeling and sculpturing of tiles, panels, plaques, small figures in high and low relief, and in the round from plastic materials, casting in plaster, coiling, building, pressing and decorating pottery.

**160** **LETTERING (FO)** **Three Credits**  
 Study of various techniques in poster layouts; practice in freehand pen and brush lettering; study of old style and modern alphabets; designing monograms, book covers and jackets, and constructing, printing, and illustrating a book.

**161** **LETTERING (SO)** **Three Credits**  
**PREREQUISITE:** FIA 160  
 Emphasis on how lettering can enhance the career of a professional artist or art educator. Assignments are often in the form of design problems requiring a convergence of skills from all classes.

**180** **COMPUTER LITERACY FOR THE ARTS (EE)** **Three Credits**  
 Study of the concepts and skills necessary to explore the use of computers in the arts. Emphasizes intuitive understanding of technical material and encourages artistic experimentation with computer-related ideas.

**201** **BASIC ART APPRECIATION (E)** **Three Credits**  
 Survey of the arts (architecture, painting, and sculpture) conducted through a series of lectures, slides, and art films. Emphasis on the elements that go into the making of a work of art, the artists' works related to the world around them, and an explanation of the periods of art.

**211** **FASHION DRAWING (FO)** **Three Credits**  
**PREREQUISITE:** FIA 114  
 Introduction to drawing from the live model and other sources. Emphasis is on developing skills necessary for competent illustration of the figure for fashion drawings.

**214** **CRAFT DESIGN (SI)** **Three Credits**  
 Experimentation with basic processes and individual problems in woodcarving, ceramics, leather, metal, textiles and plastics. Develops appreciation of artistic craftsmanship, research, lectures, demonstration and participating experiences.

**215** **CRAFT DESIGN (SI)** **Three Credits**  
**PREREQUISITE:** FIA 214  
 Experience with various materials related to contemporary and traditional craft forms, related to object making which uses originality of concept and design.

**220** **LIFE DRAWING (FO)** **Three Credits**  
**PREREQUISITES:** FIA 120 and 121  
 Drawing from live models in an attempt to familiarize the student with various approaches to the figure.

**221** **LIFE DRAWING (FO)** **Three Credits**  
**PREREQUISITES:** FIA 120, 121, and 220  
 Drawing from live models in an attempt to familiarize the student with various approaches to the figure.

**234** **PAINTING (FO)** **Three Credits**  
**PREREQUISITES:** FIA 114; 115; 120; 121  
 Introduction to acrylic or oil painting with emphasis on a variety of painting techniques, composition and color mixing. Individual development stressed through class critiques. Museum and gallery visits required.

**235** **PAINTING (SO)** **Three Credits**  
**PREREQUISITES:** FIA 114; 115; 120; 121; 234  
 Introduction to acrylic or oil painting with emphasis on a variety of painting techniques, composition and color mixing. Individual development stressed through class critiques. Museum and gallery visits required.

**240** **SCULPTURE (FO)** **Three Credits**  
 Introduction to the basic rules and techniques of sculpture, familiarizing students with the various tools and materials peculiar to this area. Emphasis on clay, plaster of Paris, wire and plastics, and traditional materials such as wood, stone, and metal, wherever feasible. Elementary sculpture is bas-relief and in the round.

**241** **SCULPTURE (SO)** **Three Credits**  
**PREREQUISITE:** FIA 240  
 Introduction to the basic rules and techniques of sculpture, familiarizing students with the various tools and materials peculiar to this area. Emphasis on clay, plaster of Paris, wire and plastics, and traditional materials such as wood, stone, and metal, wherever feasible. Elementary sculpture is bas-relief and in the round.

**250** **INTRODUCTION TO ANIMATION (FO)** **Three Credits**  
**PREREQUISITES:** FIA 114, 115, 120, 121, or Permission of the Instructor  
 Introduction to the history, careers, and production skills in animation art which provides hands-on knowledge of the various stages of production without recourse to heavy investments in supplies and professional equipment.

**251** **BASIC ANIMATION (SO)** **Three Credits**  
**PREREQUISITE:** FIA 250  
 Development of the historical knowledge of animation and the advancement of personal animation production skills through a hands-on studio class.

**260** **INTRODUCTION TO GRAPHIC DESIGN (FO)** **Three Credits**  
 Fundamental principles of graphic design, organized as a series of problems in visual communication including a variety of working methods, developing designs from the initial conceptual stage through final production phase. Computer experience recommended.

**261** **PRINTMAKING WORKSHOP (FO)** **Three Credits**  
 Fundamental understanding of various printmaking media through the demonstration and execution of basic technical methods combined with discussion of the aesthetic considerations involved in the creation of original prints.

**262** **PRINTMAKING WORKSHOP (SO)** **Three Credits**  
**PREREQUISITE:** FIA 261

Fundamental understanding of various printmaking media through the demonstration and execution of basic technical methods combined with discussion of the aesthetic considerations involved in the creation of original prints.

**270 Three Credits**  
**HISTORY OF ART SURVEY I (FO)**

Survey of architecture, painting, and sculpture designed to promote understanding and enjoyment of the fine arts through a series of lectures, slides, and art films. Emphasis on technical, social, historical, and thematic issues from prehistoric art through Gothic.

**271 Three Credits**  
**HISTORY OF ART SURVEY II (SO)**  
**PREREQUISITE: FIA 270**

Survey of architecture, painting, and sculpture designed to promote understanding and enjoyment of the fine arts through a series of lectures, slides, and art films. Emphasis on technical, social, historical, and thematic issues from the Renaissance through contemporary.

**280 Three Credits**  
**COMPUTER IMAGING (E)**  
**PREREQUISITE: FIA 180**

Introduction to the process of involving electronic media in the production of visual images using the computer and its peripheral devices. Emphasis on two-dimensional still images, with attention to animation, web design, and presentations.

**314 Three Credits**  
**FINE ARTS AND METHODS (SI)**

Introduction to a wide variety of creative, problem-solving experiments with art materials for prospective or in-service teachers or students from other professions.

**315 Three Credits**  
**ART UNITS WITH OBSERVATION (SI)**  
**PREREQUISITE: FIA 314**

Extension of the theory and practice of art education to guide art majors in a series of unit and lesson planning activities.

**320 Three Credits**  
**INTERMEDIATE DRAWING (FO)**  
**PREREQUISITES: FIA 120 and 121**

Enhancement of the ability to translate physical and mental stimuli into tangible, visual images engaging in a variety of technical assignments designed to expand the creative thought process.

**321 Three Credits**  
**INTERMEDIATE DRAWING (SO)**  
**PREREQUISITES: FIA 120, 121, and 320**

Enhancement of the ability to translate physical and mental stimuli into tangible, visual images engaging in a variety of technical assignments designed to expand the creative thought process.

**323 Three Credits**  
**INTERNATIONAL ANIMATED FILM HISTORY**

Survey of the history of the animated feature film from its creation in the late 1930's. Focus on the filmmaking, studios, trends and traditions, and their influence on popular culture worldwide.

**334 Three Credits**  
**ART COMPOSITION AND PAINTING (FO)**

Emphasis on the strengthening of organization principles of good drawing and design within a painting, including the application of effective painting methods, techniques, and thematic concepts.

**335 Three Credits**  
**ART COMPOSITION AND PAINTING (SO)**  
**PREREQUISITES: FIA 234, 334**

Emphasis on the strengthening of organization principles of good drawing and design within a painting, including the application of effective painting methods, techniques, and thematic concepts.

**340 Three Credits**  
**INTERMEDIATE CERAMICS (FO)**  
**PREREQUISITES: FIA 140, 141**

Opportunity to execute individual programs, making use of stoneware temperature, reduction, and raku firing.

**341 Three Credits**  
**INTERMEDIATE CERAMICS (SO)**  
**PREREQUISITES: FIA 140, 141, 340**

Opportunity to execute individual programs, making use of stoneware temperature, reduction, and raku firing.

**350 Three Credits**  
**INTERMEDIATE ANIMATION I (SI)**  
**PREREQUISITES: FIA 220, 221, 250, 251**

Development of intermediate skills in character design and animation coupled with computer animation production. Further development of skills in "clean-up," "inbetweening," "layout," "special effects," and "background."

**351 Three Credits**  
**INTERMEDIATE ANIMATION II (SI)**  
**PREREQUISITES: FIA 220, 221, 250, 251, 350**

Develops the intermediate skills in character design and animation, coupled with computer animation production. Further development of the student's skills in "clean-up," "inbetweening," "layout," "special effects," and "background."

**360 Three Credits**  
**TYPOGRAPHY (FO)**

Introduction to communication problem solving through the visual language. Exploration of the fundamentals of typography and typographic design through a series of experimental and practical projects.

**361 Three Credits**  
**ADVANCED PRINTMAKING (FO)**  
**PREREQUISITES: FIA 261, 262**

Exploration of the art of lithography and either intaglio or relief prints.

**362 Three Credits**  
**GRAPHIC DESIGN I (SO)**  
**PREREQUISITE: FIA 260**

Foundation of commercial art including video and the Web. Emphasis on layout, typography, computer graphics, photography, video and the various processes of reproduction as they pertain to graphic design.

**363 Three Credits**  
**GRAPHIC DESIGN II (FO)**  
**PREREQUISITE: FIA 362**

Study of commercial art including video and the Web. Emphasis on layout, illustration, typography, computer graphics, photography, video, animation (such as Flash), and the various processes of reproduction as they pertain to graphic design.

**365 Three Credits**  
**ELEMENTARY PHOTOGRAPHY (FO)**

Fundamental principles and practices of photography necessary for taking and making excellent prints.

**366 Three Credits**  
**ADVANCED PHOTOGRAPHY (SO)**  
**PREREQUISITE: FIA 365 or Equivalent**

Study of composition and perspective in the following categories: advertising, copying, photographic drawings open and slide making (color). Emphasis on lighting, shadows, shape and form.

**370 Three Credits**  
**AFRICAN/AFRO-AMERICAN ART (E)**

Survey of African and African-American art from the first millennium B.C. to the present, which examines painting, sculpture, architecture, and the lesser arts of metallurgy, design and textiles.

**372 Three Credits**  
**INTRODUCTION TO FIBERS (SI)**

Study of contemporary sculptural forms in the following categories: soft sculpture, body adornments, container forms, and wall hangings. Techniques used are wrapping, coiling, weaving, off-loom weaving, knot forming, trapunto, and fabric manipulation.

**373 Three Credits**  
**FASHION ILLUSTRATION AND LAYOUT (EE)**

Study of the mechanics of fashion layouts from the initial sketch to the camera-ready design. Emphasis on basic techniques and integrating fashion illustration with typography.

**374 Three Credits**  
**ADVANCED FIBERS**  
**PREREQUISITE: FIA 372**

Fundamentals of working with fibers using manipulative and basic skills to establish a fiber vocabulary, heighten sensitivity to materials, and impart knowledge of fibers and forms.

**420 Three Credits**  
**ADVANCED DRAWING (FO)**  
**PREREQUISITES: FIA 120/121, 220/221, 320/321**

Establishment of individual responses to the environment while building drawing concepts by working in series and presenting work in a professional manner.

**421 Three Credits**  
**ADVANCED DRAWING (SO)**  
**PREREQUISITES: FIA 120/121, FIA 220/221, FIA 320/321, and 420**

Establishment of individual responses to the environment while building drawing concepts by working in series and by presenting work in a professional manner.

**434 Three Credits**  
**ADVANCED PAINTING (FO)**  
**PREREQUISITES: FIA 334, 335**

Establishment of proficiency in the rendering of a special subject area with complete utilization of acquired skills in painting. Emphasis on freedom of expression and critical analysis of painting direction.

**435 Three Credits**  
**ADVANCED PAINTING (SO)**  
**PREREQUISITES: FIA 334, 335, 434**

Establishment of proficiency in the rendering of a special subject area with complete utilization of acquired skills in painting. Emphasis on freedom of expression and critical analysis of painting direction.

**460 Three Credits**  
**ADVANCED GRAPHIC DESIGN (FO)**  
**PREREQUISITE: FIA 363**

Study of the means and methods of relating pictorial images, lettering, type, paper and color for use in publicity, book design, and allied fields.

**461 Three Credits**  
**ADVANCED GRAPHIC DESIGN (SO)**  
**PREREQUISITES: FIA 260, 360, 362, 363, 460**

Focus on research and experimentation in specialized visual communication media in a topical studio. Extensive experience in computer graphics required.

**462 Three Credits**  
**DESIGN IN COMMERCE (FO)**  
**PREREQUISITES: FIA 260, 360, 362, 363, 460, and 461**

Study of contemporary visual communications, with emphasis on systematic and methodological approaches to communication design through the solving of practical, complex problems in visual communication. Extensive experience in computer graphics required.

**463 Three Credits**  
**DESIGN IN COMMERCE (SO)**  
**PREREQUISITES: FIA 260, 360, 362, 363, 460, 461, 462**

Study of graphic design with emphasis on sharpening mechanical skills, promoting professional work and compiling a strong portfolio. Developing a sense of clarity and style in visual communication of the goal.

**470 Three Credits**  
**MODERN ART HISTORY (SO)**  
**PREREQUISITES: FIA 270, 271**

Survey of modern art from the 19<sup>th</sup>-century avant-garde to contemporary modes of expression. Focus on movements in European and American art including the evolution of painting, sculpture, and architecture.

**472 Three Credits**  
**ENAMELING**

Study of master techniques in fusing colored gloss to metal surfaces. Experiments conducted with both opaque and transparent enamels on a wide variety of metal surfaces.

**473 Three Credits**  
**JEWELRY MAKING**

Study of the concept of jewelry making with focus on usability and aesthetic quality.

**474 Three Credits**  
**FABRIC PRINTING (SI)**

Study of basic weaves enhanced by resist dyeing (ikat) and directly applied painted warps. Experiments conducted with methods of coloring and ornamenting fabrics through dyeing processes that affect material to be woven into fabric.

**491/491a/491b Three Credits**  
**ADVANCED STUDIO PROBLEMS (E)**  
**PREREQUISITE: Senior Standing**

Study of studio problems in drawing, painting, printmaking, graphic design, sculpture, ceramics, and photography.

**492/492a/492b Three Credits**  
**ADVANCED STUDIO PROBLEMS (E)**  
**PREREQUISITE: Senior Standing or Permission of Chairman**

Studio problems in drawing, painting, printmaking, graphic design, sculpture, ceramics, and photography. May be used for one semester major-field-related internship.

**495 Two Credits**  
**PORTFOLIO PREPARATION AND SENIOR EXHIBITION (E)**  
**PREREQUISITE: To be taken only in the final semester of major course work for graduation.**

Preparation of a professional art portfolio which includes selecting pieces, presenting and documenting work, applying

for graduate school or the profession. Portfolio reviewed by faculty and outside evaluators.

## FOOD SCIENCE AND NUTRITION - FSN

**101 Two Credits**  
**INTRODUCTION TO DIETETICS AND FOOD SCIENCE (SI)**  
 Study of dietetics history, philosophy, and career choices. Emphasis will be placed on skills, attitudes, educational preparedness, and work experiences necessary for the performance in the field of dietetics.

**102 One Credits**  
**PROFESSIONAL DEVELOPMENT AND EXPERIENCES SEMINAR (SI)**  
**PREREQUISITE(S): FSN 101 and FSN 110**  
 Exploration of opportunities in the Nutritional Sciences and Dietetics Professions. Career planning and exposure to nutrition and dietetics professionals as role models. Emphasis will be placed on orientation and development of professional behavior in the workplace; evaluation and analysis of on-the-job work experiences in the dietetics and nutrition professions coupled with classroom preparation. Supervised work experience to include a minimum of thirty clock hours per semester.

**110 Three Credits**  
**THE SCIENCE OF HUMAN NUTRITION (EE)**  
 The study of the science of food, the nutrients, and other substances therein, and their action, interaction, and balance in relation to health and disease. Also, the study of the processes by which the human body ingests, digests, absorbs, transports, utilizes, and excretes food substances.

**160 Three Credits**  
**FOOD COST CONTROL (FO)**  
**PREREQUISITE(S): 6 HOURS OF MATH**  
 Theoretical and practical applications of food cost control in food service systems.

**312 Three Credits**  
**PHYSIOLOGICAL AND CHEMICAL FOUNDATIONS OF NUTRITION (O)**  
**PREREQUISITE(S): FSN 110**  
 Study of the chemical and physiological utilization of nutrients present in food as related to individuals at different stages of the life cycle: includes digestion, absorption, metabolism, nutrient requirements and deficiencies.

**320 Three Credits**  
**FOOD SERVICE MANAGEMENT (O)**  
**PREREQUISITE(S): FSN 101 and FSN 160**  
 Study of the theoretical foundations involved in the organization and management of public and private food service institutions. Emphasis is placed on personnel management and labor policies.

**330 Three Credits**  
**SCIENTIFIC FOOD DEVELOPMENT (O)**  
**PREREQUISITE(S): CHM 312, CHM 321 and CHM 321L**  
 Application of experimental methods to food preparation considering physical, chemical, and biological changes.

**330L One Credits**  
**SCIENTIFIC FOOD DEVELOPMENT LAB (O)**  
**PREREQUISITE(S): To be taken along with FSN 330**  
 This laboratory will provide experiments and applications that illustrate the chemical and physical changes that occur in foods and food systems during their preparation, processing, and storage.

**340 Three Credits**  
**NUTRITION EDUCATION (FO)**  
**PREREQUISITE(S): FSN 110 or FSN 312**  
 The study of the skills of communication, business management, and education for the performance of the task of translating nutrition information into nutritious eating patterns and healthy behavior.

**356 Three Credits**  
**ADVANCED NUTRITION AND HUMAN METABOLISM (O)**  
**PREREQUISITE(S): CHM 312, CHM 312L, CHM 313, CHM 313L and FSN 312**  
 Advanced nutrition emphasizing the interrelations among nutrients in metabolism, effect of diets on the biophysical process, and factors that may alter nutrient requirements in humans.

**410 Three Credits**  
**NUTRITION IN AGING (SO)**  
**PREREQUISITE(S): FSN 110 or FSN 312**

This course provides basic knowledge about the particular nutrition and food needs of older people. Emphasis is placed on making informed decisions about the nutritional needs of the elderly with careful attention to seeking alternatives and evaluating each client as an individual.

**426 Three Credits**  
**NUTRITION IN DISEASE (O)**  
**PREREQUISITE(S): FSN 356 or BIO 165/166**  
 Advanced study of nutrition as it relates to human disease with theoretical dietary management.

**426L One Credits**  
**NUTRITION IN DISEASE (O)**  
**PREREQUISITE(S): FSN 356 or BIO 165/166**  
 A course which provides experience in completing nutritional assessments, energy-nutrient analysis, non-energy nutrient analysis, and drug-nutrient interactions. These structured laboratory experiments will reinforce the concepts covered in FSN 426: Nutrition in Disease.

**449 Three Credits**  
**NUTRITION IN SPORTS AND FITNESS (O)**  
**PREREQUISITE(S): FSN 110 or FSN 312**  
 The application of nutrition principles to enhance the health of the athlete and to optimize physical performance including metabolic demands of exercise, fuel sources, energy expenditure, vitamins and minerals, fluids and electrolytes, and diet planning. Also, the study of nutrient and quasi nutrient supplementation, efficacy of ergogenic aids, and eating disorders as they relate to the athlete.

**450 Three Credits**  
**PROFESSIONAL SEMINAR (OO)**  
**PREREQUISITE(S): FSN 356, FSN 426, and FSN 426L**  
 Preparation and delivery of literature review. Exploration into problems in dietetics, nutrition, and food science.

**460 Three Credits**  
**QUANTITY FOOD PRODUCTION (SO)**  
**PREREQUISITE(S): FSN 160 and FSN 320**  
 Selection, use, and care of institutional equipment. Food preparation principles applied to quantity production. Experience in a food service establishment.

**484 Three Credits**  
**RURAL/URBAN NUTRITION (O)**  
**PREREQUISITE(S): FSN 312, FSN 426 and FSN 426L**  
 Cultural and scientific aspects of food and nutrition as applied to the individual, the family, and community.

## FRENCH - FRN

**111 Three Credits**  
**ELEMENTARY FRENCH I (EE)**  
 Introduction to fundamentals of pronunciation, grammar, structure, vocabulary, conversation, and reading.

**112 Three Credits**  
**ELEMENTARY FRENCH II (EE)**  
**PREREQUISITE: FRN 111 or Equivalent**  
 Introduction to fundamentals of pronunciation, grammar, structure, vocabulary, conversation, and reading.

**113 Three Credits**  
**BASIC CONVERSATION I (SI)**  
 Practical use of daily conversation for students who have had no previous training with emphasis on idiomatic expressions and acquiring fluency. Conducted largely in French.

**114 Three Credits**  
**BASIC CONVERSATION II (SI)**  
 Practical use of daily conversation for students who have had no previous training with emphasis on idiomatic expressions and acquiring fluency. Conducted largely in French. (May be taken independently.)

**211 Three Credits**  
**INTERMEDIATE FRENCH I (SI)**  
**PREREQUISITE: FRN 112 or Equivalent**  
 Review of grammar, reading moderately difficult prose, oral practice, and written compositions.

**212 Three Credits**  
**INTERMEDIATE FRENCH II (SI)**  
**PREREQUISITE: FRN 211 or Equivalent**  
 Intensive and extensive study and reading of modern prose, oral practice, and composition.

**213 Three Credits**  
**SCIENTIFIC FRENCH**  
**PREREQUISITE: FRN 211 or Equivalent**

Intensive and extensive reading of scientific French in chemistry, physics, biology, mathematics, psychology, etc. Course may be taken in lieu of FRN 212 by majors in science, mathematics, and psychology to satisfy language requirements.

**214 Three Credits**  
**ENTREPRENEURIAL FRENCH (SI)**  
**PREREQUISITE: FRN 112**  
 Study of concepts of French business language and culture to prepare them to be competitive in an increasingly global marketplace.

**215 Three Credits**  
**INTERMEDIATE CONVERSATION (SI)**  
**PREREQUISITE: FRN 212 or Equivalent**  
 Practical use of daily conversation with emphasis on idiomatic expressions and acquiring fluency. Conducted largely in French.

**216 Three Credits**  
**EXPLICATION DE TEXTES**  
**PREREQUISITE: FRN 215 or Equivalent**  
 Preparation for the study of advanced texts from literary and linguistic points of view. Conducted in French.

**220 Three Credits**  
**FRENCH CIVILIZATION I (SI)**  
**PREREQUISITE: FRN 212 or Equivalent**  
 Survey of the most important elements of French civilization, geography, economy, political history, arts, sciences, and institutions. Conducted in French.

**315 Three Credits**  
**ADVANCED CONVERSATION (SI)**  
**PREREQUISITE: FRN 215 or Permission of Instructor**  
 Intensive and extensive practice in the use of oral French. Conducted in French.

**320 Three Credits**  
**FRENCH CIVILIZATION II**  
**PREREQUISITE: FRN 215 or Permission of Instructor**  
 Survey of the most important elements of contemporary French culture. Conducted in French.

**321 Three Credits**  
**SURVEY OF FRENCH LITERATURE I (SI)**  
**PREREQUISITE: FRN 216 or Equivalent**  
 Study of representative works of French literature from the beginning to the end of the 17th century. Conducted in French.

**322 Three Credits**  
**SURVEY OF FRENCH LITERATURE II (SI)**  
**PREREQUISITE: FRN 216 or Equivalent**  
 Study of representative works of French literature from the beginning of the 18th century to the middle of the 20th century.

**All literature courses beyond this level are conducted in French.**

**326 Three Credits**  
**FRENCH LITERATURE OF THE 16TH CENTURY**  
**PREREQUISITE: FRN 321**  
 Study of the representative works of the period: the poetry of the Pleiades and the prose of Rabelais and Montaigne.

**330 Three Credits**  
**LITERATURE OF THE 17TH CENTURY**  
**PREREQUISITE: FRN 321**  
 Origins and foundations of French Classicism, including its philosophical and artistic implications and its main representatives: Descartes, Pascal, Corneille, Racine, Moliere, La Fontaine, and minor classicists.

**331 Three Credits**  
**LITERATURE OF THE 18TH CENTURY**  
**PREREQUISITE: FRN 322**  
 Presentation of the main trends in the political and literary developments of the Age of Enlightenment. Special emphasis on the contributions of Voltaire, Rousseau, Montesquieu and the Encyclopedists.

**332 Three Credits**  
**LITERATURE OF THE 19TH CENTURY**  
**PREREQUISITE: FRN 322**  
 Emphasis on Romanticism, Realism, Naturalism and Symbolism dealing with the chief tendencies of contemporary literature. Analysis of texts and literary theories in class discussions.

**333 Three Credits**  
**LITERATURE OF THE 20TH CENTURY**  
**PREREQUISITE: FRN 322**

Study of representative authors and works presenting contemporary literary trends.

**382/SPN 382** **Three Credits**  
**THE TEACHING OF FOREIGN LANGUAGES IN SECONDARY SCHOOLS**  
**PREREQUISITE: SED 380**  
 Study of methods and materials in the teaching of modern foreign languages.

**412** **Three Credits**  
**LANGUAGE FOR PROFESSIONALS (SI)**  
**PREREQUISITE: FRN 315 or Permission of the Instructor**  
 Intensive and extensive practice in the language of technical, vocational, and professional areas with emphasis on comprehension, speaking, reading, and writing. Special emphasis on the student's secondary area of concentration.

**413** **Three Credits**  
**INDIVIDUALIZED LANGUAGE FOR PROFESSIONALS**  
**PREREQUISITE: FRN 315 or Permission of the Instructor**  
 Intensive practice in the language of technical, vocational or professional areas.

**450** **Two Credits**  
**PHONETICS (SI)**  
**PREREQUISITE: FRN 215 or Equivalent**  
 Analysis of the phonetic features of French including systematic exercises in pronunciation, intonation, and reading of prose and poetry.

**454** **Three Credits**  
**ADVANCED GRAMMAR AND COMPOSITION (SI)**  
**PREREQUISITE: FRN 215 or Equivalent**  
 Intensive review and application of French grammar including intensive practice in writing and study of vocabulary and idioms.

**485** **Two Credits**  
**CONTRASTIVE LINGUISTICS**  
**PREREQUISITE: FRN 215 or Equivalent**  
 Introduction to the principle phonological, morphological, syntactical, and lexical contrasts between French and English. No previous work in linguistics is required.

**490** **Three Credits**  
**SENIOR SEMINAR**  
**PREREQUISITE: Departmental Permission**  
 Independent research on a topic approved by the departmental advisor, and completed under the guidance of that advisor.

## FUNERAL SERVICE - FNS

**300L** **One Credit**  
**FUNERAL SERVICE REVIEW LAB (EE)**  
 Comprehensive review of all courses in preparation for the National Board Examination.

**301** **Two Credits**  
**INTRO TO FUNERAL SERVICES (EE)**  
 Survey of the history of funeral service, with emphasis on ethnic groups that have influenced contemporary funeral principles and practice, as well as the progression of associations and education within funeral service.

**322** **Two Credits**  
**FUNERAL SERVICE LAW (EE)**  
 Preparation for exams to become funeral directors and embalmers. Study of laws, regulations, legislatures, and society as established to ensure the orderly and decent disposition of dead human bodies.

**330** **Three Credits**  
**CONCEPTS AND APPLICATIONS (EE)**  
 Introduction to computers and information processing. Primary emphasis on three standard applications: word processing, spreadsheets, and data base.

**340** **Four Credits**  
**EMBALMING FOR FS I (FO)**  
**PREREQUISITE: BIO 165**  
 Introduction to the history, purpose and technical aspects of embalming which include signs and tests for death, proper handling of human remains, different types of chemicals, instruments and disinfectants used to facilitate disinfections, preservation, and restoration of human remains.

**345** **Four Credits**  
**EMBALMING FOR FS II (SO)**  
 Continuation of the history, purpose and technical aspects of embalming which include signs and tests for death, proper handling of human remains, pre-and post mortem changes in

the body, government regulation, as it pertains to the preparation room, and handling of human remains, different type of chemicals, instruments and disinfectants used to facilitate disinfections, preservation, and restoration of human remains. Participation in a minimum of 10 embalming procedures is required. (Grades based on proficiency, technique and knowledge of subject matter.)

**350** **Three Credits**  
**RESTORATIVE ART I (FO)**  
 Introduction to the methods of restoring human remains to a lifelike state, including analysis of the proportions and structures of the cranial and facial regions, identification of natural facial markings, and mastered techniques of restoring damaged remains. Additional emphasis on the importance and application of cosmetics and color.

**355** **Three Credits**  
**RESTORATIVE ART II (SO)**  
 Study of the surface contour, the influence of the bone structure on facial form, and the effect of the facial muscles on the wrinkles, grooves and folds of the face, including wax and non-wax treatments and techniques, such as swellings, feature corrections, and hair restorations.

**360** **Three Credits**  
**INTRO TO MANAGEMENT I (FO)**  
 Introduction to the basic principles of funeral management which apply to the practice of the funeral professions.

**365** **Three Credits**  
**INTRO TO MANAGEMENT II (FO)**  
**PREREQUISITE: FNS 360**  
 The role and function of effective funeral service management in planning, organizing, motivating, and directing and controlling.

**370** **Three Credits**  
**FUNERAL HOME MERCHANDISING (FS)**  
 Intensive study of display methods, promotion and advertising as they pertain to caskets, clothing, and cremation items through participation in projects designed to enhance knowledge of layout and design.

**373** **Two Credits**  
**ETHICS IN FUNERAL SERVICE EDUCATION (SO)**  
 Study of the basic rules governing the everyday activities of funeral service. Emphasis on trustworthiness, rapport, and sensitivity to the needs of the bereaved. Study of the standards of ethical behavior in personal and professional conduct as it pertains to funeral service.

## GENERAL STUDIES – GST/UNI

**UNI 101** **Zero Credit**  
**INTRODUCTION TO UNIVERSITY LIFE**  
 Non-credit introduction to university life to enhance students' transition.

**GST 180** **Three Credits**  
**CAREER EXPLORATION**  
 Introduction to career trends, values clarification, skills and techniques necessary for decision-making and career assessment.

**GST 200** **Zero Credit**  
**STUDY SKILLS SEMINAR**  
 Development of skills necessary to enhance academic success in college with emphasis on weekly activities to promote utilization of positive study habits and necessary college survival skills.

**GST 345H or 346H** **Three Credits**  
**HONORS SEMINAR**  
 Interdisciplinary topic-driven research course is designed for qualifying Juniors and Seniors for the NSU Honors Program. Successful completion of the honors seminar course is required to graduate as a Parsons Vice-Presidential Scholar or a Parsons Presidential Scholar. Students taking the course for the first time should enroll in GST 345H; however, students may choose GST 346H for a second time with a new topic.

**GST 445H or 446H** **Three Credits**  
**Honors Seminar**  
 Interdisciplinary topic-driven research course is designed for qualifying Juniors and Seniors for the NSU Honors Program. Successful completion of the honors seminar course is required to graduate as a Parsons Vice-Presidential Scholar

or a Parsons Presidential Scholar. Students taking the course for the first time should enroll in GST 445H; however, students may choose GST 446H for a second time with a new topic.

## GEOGRAPHY - GEO

**130** **Three Credits**  
**PRINCIPLES OF GEOGRAPHY (EE)**  
 Survey of the development of geography principles with emphasis on principles underlying the types of climate, their causes, distribution, and influence, and presents an analysis of man's work in various physical and political regions.

**141** **Three Credits**  
**WORLD REGIONAL GEOGRAPHY**  
 Survey of the major natural regions of the world according to their common physical characteristics, economic activities, cultural patterns, trends, and problems.

**331** **Three Credits**  
**ECONOMIC GEOGRAPHY**  
 Study of the distribution, development, and conservation of natural resources; the growth of industrial regions, transportation lines, and trade centers; and interdependence of nations.

**335** **Three Credits**  
**GEOGRAPHY OF VIRGINIA**  
 Study of the geographic regions of Virginia and the influence of geographic factors on social and economic problems in Virginia, past and present.

**336** **Three Credits**  
**POLITICAL GEOGRAPHY (SI)**  
 Examination of the relationship between politics and territory including how natural environments, distributions of populations and resources, levels of technological developments influence political decisions and the world geographic realms.

**337** **Three Credits**  
**GEOGRAPHY OF AFRICA (SI)**  
 Study of the natural regions of the continent, the physical and human resources and activities, the urban centers and economic and political problems and potentials. Emphasis on the analysis of problems and situations in regions and countries in the Islamic and Sub-Saharan African Realms.

**340** **Three Credits**  
**GEOGRAPHY OF ANGLO-AMERICA**  
 Analysis of the relationship of Anglo-America to the development of nations in North America and environs. Focus on the characteristics of place, human interaction with the environment, urban systems, and comparative analysis of subregions and economic systems. Timely subjects reflect approaches to problem solving and the changing role of the geography of Anglo-America in cyberspace and in the world's political, military and economic alliances.

**410** **Three Credits**  
**URBAN GEOGRAPHY (O)**  
 Focus on structure and pattern in the urban fabric and the processes at work in the contemporary urban milieu. Emphasis on concepts and generalizations relating to the distribution of settlements, their functional specialization, and the spatial interrelations that bind them together into a complex, functional whole.

## GERMAN - GRM

**111** **Three Credits**  
**ELEMENTARY GERMAN I (SI)**  
 Introduction to the fundamentals of pronunciation, grammar, structure, vocabulary, conversation, and reading.

**112** **Three Credits**  
**ELEMENTARY GERMAN II (SI)**  
**PREREQUISITE: GRM 111 or Equivalent**  
 Introduction to the fundamentals of pronunciation, grammar, structure, vocabulary, conversation, and reading.

**211** **Three Credits**  
**INTERMEDIATE GERMAN I (SI)**  
**PREREQUISITE: GRM 112 or Equivalent**  
 Review of grammar, reading moderately difficult prose, oral practice, and written compositions.

**212** **Three Credits**  
**INTERMEDIATE GERMAN II**  
**PREREQUISITE: GRM 211 or Equivalent**  
 Intensive and extensive study and reading of modern prose, oral practice and composition.

**213** **Three Credits**  
**SCIENTIFIC GERMAN**  
**PREREQUISITE: GRM 211 or Equivalent**  
 Intensive and extensive reading of scientific German in chemistry, physics, biology, mathematics, psychology, etc. Course may be taken in lieu of GRM 212 by majors in science, mathematics, and psychology to satisfy language requirements.

**500** **One/Two/Three Credits**  
**SUPERVISED INDEPENDENT STUDY IN GERMAN**  
**PREREQUISITE: Senior or Graduate Level**  
 Variable content course in German language, literature, history, or culture for students who wish to study beyond the normal four-semester sequence of foreign language.

## HEALTH EDUCATION - HED

**100** **Two Credits**  
**PERSONAL AND COMMUNITY HEALTH (FO) (SO)**  
 Study of a basic knowledge of current personal and community health problems to make informed decisions, to develop more positive attitudes, and to practice a lifestyle of healthful living.

**170** **Three Credits**  
**PERSONAL AND COMMUNITY HEALTH (FO)**  
 Study of a basic knowledge necessary for meeting the state's approved professional preparation and responsibilities in the area of health.

**368/368A** **Three Credits**  
**CURRICULUM AND METHODS IN HEALTH EDUCATION (FO) (SO)**  
**PREREQUISITES: HED 100, 170**  
 Study of teaching and learning concepts; curriculum planning and organization; classroom management skills; professional behavior; subject matter delivery, and assessment and evaluation strategies. Successful completion of the course satisfies the state's endorsement requirements in health education.

**442** **Three Credits**  
**GENERAL SAFETY EDUCATION (SO)**  
**PREREQUISITE: HED 170**  
 Study of safety education including home safety, traffic safety, industrial safety, and pedestrian safety which provides healthy and enjoyable living in an environment that often presents hazards and chances for accidents.

## HEALTH INFORMATION MANAGEMENT - HIM

**120** **Three Credits**  
**MEDICAL TERMINOLOGY (EE)**  
 Study of medical terminology including abbreviations, prefixes, suffixes, root words, and technical terms with emphasis on proper spelling and usage.

**310** **Three Credits**  
**CURRENT TRENDS IN HEALTH-CARE DELIVERY (FO)**  
**PREREQUISITE: All Courses Listed Under the Freshman and Sophomore Years**  
 Study of the health-care industry, governmental and voluntary care organizations in health-care, the functions of health-care providers, the organizational patterns of health-care facilities, current issues, and forces impacting on the health-care delivery system.

**311** **Three Credits**  
**RECORD MANAGEMENT (FO)**  
**PREREQUISITE: All Courses Listed Under the Freshman and Sophomore Years**  
 Study of storage and retrieval systems and control techniques for health records; accreditation, certification, and licensure standards applicable to health records; the quantitative and qualitative analysis of health records; techniques of word processing and machine transcription; policies and procedures for the control and use of personal health information; confidentiality; forms design and control; and ethical standards for health record practice.

**311L** **One Credit**  
**RECORD MANAGEMENT LABORATORY (FO)**  
**PREREQUISITE: All Courses Listed Under the Freshman and Sophomore Years**  
 Projects related to concepts such as storage and retrieval systems, numbering and filing systems, content and format of

health records, qualitative and quantitative analysis of health records, and forms design and control.

**315** **Three Credits**  
**INTRODUCTION TO MANAGEMENT CONCEPTS (FO)**  
**PREREQUISITE: All Courses Listed Under the Freshman and Sophomore Years**  
 Introduction to basic managerial concepts and functions. Emphasis on managerial leadership styles and employee motivation; development of plans, policies, procedures, and organization charts; principles of authority, responsibility, delegation, and communication; performance appraisal; and labor organizations in health care.

**316** **Three Credits**  
**QUANTITATIVE METHODS (SO)**  
**PREREQUISITES: HIM 310, 311, 311L, 315, HSM 311**  
 Study of descriptive and vital statistics, reporting requirements, definitions and formulas for computing hospital and public health statistics, data reporting and presentation techniques.

**320** **Three Credits**  
**HEALTH INFORMATION SYSTEMS IN NON-ACUTE CARE (SO)**  
**PREREQUISITE: BIO 320, HIM 310, 311, 311L, 315, HSM 311**  
 A survey of health information for specialized health record departments and programs including but not limited to ambulatory care, behavioral medicine, correctional care, home care, hospice, long-term care, veterinary facilities and rehabilitation.

**323** **Three Credits**  
**CLINICAL CLASSIFICATIONS SYSTEMS I (SO)**  
**PREREQUISITE: Enrolled in professional phase of the curriculum; BIO 320; HIM 310, 311, 311L, 315; HSM 311**  
 An introduction to nomenclature and classification systems with emphasis on ICD-9-CM. Other selected systems also discussed including ICD-10. Instruction and techniques of manual and computerized coding of diagnoses and procedures will be covered. This course has a laboratory component.

**390** **Three Credits**  
**PROFESSIONAL PRACTICE EXPERIENCE I (SO)**  
**PREREQUISITES: Admission to professional phase of curriculum; BIO 320; HIM 310, 311, 311L, 315, 316, 320, 323; HSM 311, 331**  
 Study the correlation of didactic and laboratory experiences with professional practice experiences in various types of health-care facilities.

**420** **Three Credits**  
**RESEARCH METHODS (FO)**  
**PREREQUISITE: HIM 310, 311, 311L, 315, 316, 320, 323, 390, HSM 311**  
 Examine the basic concepts and strategies of conducting research projects. Students will be required to prepare a complete research proposal.

**423** **Four Credits**  
**CLINICAL CLASSIFICATIONS SYSTEMS II (FO)**  
**PREREQUISITE: Enrolled in professional phase of the curriculum; BIO 320; HIM 310, 311, 311L, 315, 316, 320, 323, 390; HSM 311, 331**  
 Examine hospital outpatient coding using CPT/HCPCS coding system; reimbursement issues related to ambulatory coding including APCs and RBRVs. This course has a laboratory component.

**425** **Three Credits**  
**HUMAN RESOURCE MANAGEMENT (FO)**  
**PREREQUISITES: HIM 311, 311L, 315, 316, 320, 323, 390; HSM 311, 331**  
 Examine the various aspects related to human resource management, i.e., environmental influences, legal and regulatory requirements, motivation and conflict management; the systems approach will be applied to managing health information systems.

**440** **Two Credits**  
**PRIVACY AND BEYOND (SO)**  
**PREREQUISITE: HIM 310, 311, 311L, 315, 316, 320, 323, 390, 420, 423, 425, 465, HSM 311, 331**  
 A more in-depth perspective of HIPAA and other privacy laws and regulations.

**460** **Two Credits**  
**ADVANCED HEALTH INFORMATION MANAGEMENT SEMINAR (SO)**  
**PREREQUISITES: HIM 311, 311L, 312, 312L, 315, 316, 340, 412, 425, 465**  
 Comprehensive review of record management, health information management, management foundations, management technology, resource management,

management of human resources, medico-legal aspects, utilization and evaluation of health-care services, research methods and statistics, health-care delivery systems, and computers in health care.

**465** **Three Credits**  
**MEDICAL INFORMATION SYSTEMS I (FO)**  
**PREREQUISITES: CSC 150, 200; HIM 310, 311, 311L, 315, 316, 320, 323, 390, HSM 311, 331**  
 Principles, practices and techniques involved with medical information systems. These concepts will specifically be applied to computer concepts and applications to health information management. Legal, clinician, and patient issues regarding telemedicine and electronic health records will be covered.

**466** **Three Credits**  
**MEDICAL INFORMATION SYSTEMS II (SO)**  
**PREREQUISITES: CSC 150, 200; HIM 310, 311, 311L, 315, 320, 323, 390, 420, 423, 465; HSM 311, 331**  
 The principles and practices involved in system development life cycles. The techniques and tools used for analysis, design, development, implementation, and evaluation will be studied.

**470** **Three Credits**  
**QUALITY MANAGEMENT IN HEALTHCARE (SO)**  
**PREREQUISITES: HIM 310, 311, 311L, 315, 316, 320, 323, 390, 420, 423, 425, 465, HSM 311, 331**  
 The practices and principles related to quality management in healthcare. Methodologies for quality management, i.e., clinical quality management, quality improvement, utilization management, risk management and credentialing will be examined.

**490** **Four Credits**  
**PROFESSIONAL PRACTICE EXPERIENCE II (SO)**  
 Supervised management activities in an affiliated health-care facility. The management professional practice experience provides a capstone experience allowing the student to integrate knowledge, behaviors and professional attributes acquired throughout the curriculum necessary to practice Health Information Management.

## HEALTH RELATED PROFESSIONS - HRP

**190** **Three Credits**  
**INTRODUCTION TO HEALTH PROFESSIONS (EE)**  
 Study of occupations involved with conditions and situations brought about by the interruption or the establishment of the health of an individual. Emphasis on developing good professional characteristics, understanding and imparting knowledge on the relationship of science to the health profession, and giving an overview of the health-care system as it exists and functions in America.

**242** **Three Credits**  
**PHARMACOLOGY FOR HEALTH PROFESSIONS**  
**PREREQUISITE: HIM 120**  
 A survey of the drugs, routes of administration and dosage forms. Individual classes of drugs are examined for identification of usage, effects and contraindications.

**290** **Three Credits**  
**AFRICAN-AMERICAN HEALTH (EE)**  
 Examination of the health problems and healthcare issues specific to African-Americans, including sickle cell, diabetes, hypertension, cancer, end stage renal disease and HIV/AIDS. Study of the delivery of health care to the African-American community as influenced by health-related historical events and the current economic influences.

## HEALTH SERVICES MANAGEMENT - HSM

**300** **Three Credits**  
**HEALTH SERVICES MANAGEMENT (EE)**  
 Orientation to the health delivery system, and the role of the health services manager and/or supervisor which provides organization theory and practical information about health administration. Investigation of the organizational and environmental context within which a health manager works.

**300L** **One Credit**  
**HEALTH SERVICES MANAGEMENT LAB (EE)**  
 Study of various problems and work settings of a health manager. Visit to various community health facilities required.

**310 Three Credits**  
**HEALTH PERSONNEL MANAGEMENT (EE)**  
 Principles and practices in personnel recruitment, selection, management, and utilization. Emphasis on unique characteristics of professional, technical, skilled and unskilled health-care workers. In-depth study of legal responsibilities, contract administration, grievance procedures, and in-services training and education.

**311 Three Credits**  
**LEGAL ASPECTS AND ETHICS OF HEALTH-CARE DELIVERY (EE)**  
 Presentation of the historical perspectives, current status, and future projections in the field. Concepts of corporate liability, malpractice, and professional negligence. Informed consents, incident reporting, and the importance of accurate and complete records. Emphasis on the prevention of legal actions. Examination of the role of ethics and moral decision-making in the everyday life of the health-service manager with special emphasis on the various professional Codes of Ethics.

**331 Four Credits**  
**HEALTH FINANCIAL MANAGEMENT (EE)**  
 Overview of economic theory and practice in the financial interactions between consumers and providers of health-care services, including all forms of public and private prepayment mechanisms. Broad orientation to financial management problems and practices is provided.

**451 Three Credits**  
**COMPREHENSIVE HEALTH PLANNING (EE)**  
 History of the development of health planning in the United States with understanding the principles, policies, and tools related to the planning process. Examination of the philosophical foundations of various methodologies of the planning process.

**454 Three Credits**  
**LONG-TERM CARE ADMINISTRATION (SO)**  
 Study of the long-term care health-delivery system to gain a working knowledge of the holistic approach to the care of the elderly and long-term care individuals. An overview of the emotional and physiological needs of individuals who require long-term care. Emphasis on finances, management, standards, and compliance for quality.

**494 Six Credits**  
**HEALTH SERVICES MANAGEMENT INTERNSHIP (SS)**  
**PREREQUISITES: HSM 300, 300L, 310, 311, 331**  
 On-the-job experience in selected institutions and agencies providing first-hand knowledge of the operational world by devoting full-time effort to observing and participating in management functions (minimum of 250 work hours). Routine written reports, a major management project, and periodic peer-advising are required with faculty direction provided by telephone and on-site visitations.

**497 Three Credits**  
**HEALTH SERVICES MANAGEMENT PROBLEMS AND RESEARCH (SO)**  
**PREREQUISITES: HSM 300, 300L, 310, 311, 331**  
 Examination of selected health-service management problems such as the current and emerging challenges in financing, organizational changes, and managerial functions.

## HISTORY - HIS

**100 Three Credits**  
**HISTORY OF CIVILIZATION (E)**  
 Survey of the development of cultures, societies, and institutions from the earliest human beings through antiquity to the European Renaissance.

**101 Three Credits**  
**HISTORY OF CIVILIZATION (E)**  
 Survey of the development of cultures, societies, and institutions from the European Renaissance through the end of the Cold War.

**102 Three Credits**  
**UNITED STATES HISTORY TO 1865 (E)**  
 Survey of American History to 1865.

**103 Three Credits**  
**UNITED STATES HISTORY 1865 TO PRESENT (E)**  
 Survey of American History from 1865 to the present.

**205 Three Credits**  
**INTRODUCTION TO THE STUDY OF HISTORY (FO)**  
**PREREQUISITE: HIS 102 and 103, or Sophomore standing**  
 Introduction to the general problems of historical study and to the skills required for conceptualizing, analyzing, and synthesizing historical materials. (At the discretion of the

department chair, transfer students may be allowed to substitute an upper-level history course for HIS 205.)

**304 Three Credits**  
**PHILOSOPHY AND RELIGION (SI)**  
**PREREQUISITES: Junior or Senior standing, or Sophomore with the Permission of the Instructor**  
 Survey of the basic ideas of philosophy and religion, affording students knowledge and understanding of their intellectual and spiritual heritage.

**320 Three Credits**  
**LATIN AMERICAN HISTORY SINCE 1820 (SI)**  
 Survey of the political, social, economic, and cultural history of the Latin American nations since the early nineteenth century.

**325 Three Credits**  
**DIPLOMATIC HISTORY OF THE UNITED STATES ( )**  
 Study of the development of American foreign relations from 1776 to the present with special emphasis on the twentieth century.

**328 Three Credits**  
**HISTORY OF VIRGINIA (O)**  
 Study of the history of Virginia to appreciate the roles that Virginia has played in the development of the nation.

**330 Three Credits**  
**COLONIAL AMERICA (O)**  
 Study of the Spanish, French, English, Dutch, and Swedish colonies through the eighteenth century, ending with the Treaty of Paris (1763). Emphasis on the economic, social, religious, and political concepts shaping colonial cultures.

**331 Three Credits**  
**THE AMERICAN REVOLUTION AND THE FEDERAL ERA, 1763-1800 (SI)**  
 Survey of the political, economic, diplomatic, and intellectual themes associated with the American Revolution and post-Revolutionary era, with particular emphasis upon the drafting of the U.S. Constitution.

**332 Three Credits**  
**THE UNITED STATES: EARLY NATIONAL PERIOD, 1800-1840 (SI)**  
 Study of the Jeffersonian and Jacksonian eras, with special emphasis on economic, political, and social forces shaping American development.

**333 Three Credits**  
**THE CIVIL WAR AND RECONSTRUCTION (SI)**  
 Study of nature of sectional conflicts leading to Civil War; political, military and diplomatic aspects of the war itself; Reconstruction and its results to 1877.

**335 Three Credits**  
**AFRICAN-AMERICAN HISTORY (E)**  
 Survey of African-American history from its African origins to 1865.

**336 Three Credits**  
**AFRICAN-AMERICAN HISTORY (E)**  
 Survey of African-American history from 1865 to the present.

**340 Three Credits**  
**FROM ENGLAND TO GREAT BRITAIN, (1485 TO 1832) (O)**  
 Study of the transformation of Tudor and Stuart England into eighteenth-century Great Britain. Emphasis on the making and maintenance of England's limited monarchy through its own civil war to the end of the Napoleonic period. Explanation of the causes and consequences of Great Britain becoming the leading industrial and commercial power by 1832.

**341 Three Credits**  
**ENGLAND SINCE 1832 (O)**  
 Study of the rise of liberalism and corresponding rivalry of conservatism; development of Britain as the leading industrial, commercial, and financial power; the Victorian Compromise; colonial expansion and imperialism; and the great reform movements and English cultural advancement.

**343 Three Credits**  
**EUROPE FROM THE RENAISSANCE TO WATERLOO**  
 Study of modern Europe from its beginnings through the final defeat of Napoleon including Late Renaissance, Commercial Revolution, religious conflicts, absolute rulers, the Industrial Revolution, the French Revolution and Napoleon as a son of the French Revolution.

**345 Three Credits**  
**EUROPE, 1815 TO 1914 (SI)**  
 Study of Congress of Vienna; period of reaction; rise of liberalism, nationalism, imperialism, democracy, industrialization; and causes of World War I.

**346 Three Credits**  
**TWENTIETH-CENTURY EUROPE (O)**  
 Study of the problems of the states of Europe, emphasizing the causes of World War I, the terrible and unpredicted consequences of "total" war, the chaotic interwar period, the effects of the Great Depression, the emergence of totalitarian ideologies, World War II and the Holocaust, and the reconstruction of Europe amidst the context of Cold War.

**348 Three Credits**  
**ANCIENT HISTORY (SS)**  
 Study of the great civilizations of Mesopotamia, Egypt, Greece and Rome. Emphasis on political, economic, social, religious, and cultural life. Assessment of the rise of Christianity and the Germanic invasions culminating in the end of the Western Roman Empire.

**349 Three Credits**  
**MEDIEVAL HISTORY (SI)**  
 Study of invasions of the "barbarians" and the rise of national states in Europe. Emphasis on the origins and development of institutions and cultures.

**360 Three Credits**  
**LATIN AMERICA: ARGENTINA, BRAZIL, AND CHILE (SI)**  
 Analysis of the political, economic, and social histories of these nations, 1810 to present.

**361 Three Credits**  
**LATIN AMERICA: READINGS IN LATIN-AMERICAN HISTORY**  
 Intensive directed reading for exceptionally able students.

**362 Three Credits**  
**INTRODUCTION TO THE MODERN NEAR EAST (FO)**  
 Survey of the foundation and development of the Islamic civilization to the foundation of the Ottoman Empire providing close study of the Ottoman Empire in the late 18th century and throughout the 19th century.

**363 Three Credits**  
**INTRODUCTION TO THE MODERN NEAR EAST (SI)**  
 Detailed study of the problems attending the creation of the modern states of the Middle East with special emphasis on the interwar period and the various independence movements.

**364 One to Three Credits**  
**READINGS IN AMERICAN HISTORY ( )**  
 Readings and discussions in selected historical problems.

**365 Three Credits**  
**CARIBBEAN AND LATIN AMERICAN HISTORY (SO)**  
 Survey of the political, economic, and social histories of the Caribbean and Latin America from their earliest inhabitants through the end of the twentieth century.

**370 Three Credits**  
**AFRICAN HISTORY AND CULTURE (FS)**  
 Survey of African history and culture from the origins of man and Paleolithic times to the coming of the Portuguese about 1500 A.D. Emphasis on Egyptian Civilization, the kingdoms along the Nile, the East African Coast, the development of Christianity in North Africa, the Sudan and Ethiopia, the Kingdom of Axum, the invasion and influence of Islam, the Bantu Expansion, and the Western Sudanic kingdoms.

**371 Three Credits**  
**AFRICAN HISTORY AND CULTURE (SO)**  
 Survey of African history and culture from the Western Sudanic Kingdoms to the Scramble for Africa in the late nineteenth century and the onslaught of colonialism. Emphasis on the coming of the Europeans, European contacts and influence in Africa, the East African Coast, the Slave Trade, South Africa, Ethiopia, the West African Forest Kingdoms, the Abolition Movement, the Scramble for Africa, and the development of colonialism.

**373 Three Credits**  
**EAST ASIAN CIVILIZATION**  
 Study of the civilization of ancient China from the dawn of history to the collapse of the Qin Dynasty in 206 B.C. Special consideration given to religion and philosophy and the other influences on the development of national institutions, includes brief survey of traditional Japan.

**374 Three Credits**  
**EAST ASIAN CIVILIZATION**  
 Study of the civilization of medieval China from the founding of the Han Dynasty (206 B.C.) to the fall of Yuan Dynasty about 1368. Special emphasis on the introduction of Buddhism into China and the rise of Neo-Confucianism, and the influence of Chinese culture on feudal Japan.

**375 Three Credits**  
**CONTEMPORARY ECONOMIC SYSTEM OF CHINA (SI)**



Study of the agricultural, industrial, commercial, and financial institutions of the People's Republic of China with emphasis on the strategic and economic importance of Sino-American relations to the growth of the world economy and the preservation of world peace.

**376** **Three Credits**  
**CONTEMPORARY ECONOMIC SYSTEMS OF JAPAN (SI)**  
 Study of postwar Japan's spectacular economic growth, with emphasis on lessons that Americans can learn from the Japanese experience.

**377** **Three Credits**  
**BLACK LEADERS, THEN AND NOW (SI)**  
 Survey of the role of Black leaders in American history from the period of exploration and discovery to the present.

**380** **Three Credits**  
**AMERICAN MILITARY HISTORY (E)**  
 Study of the development of the American military establishment, policies, and strategies from the American Revolution to the present.

**410** **Three Credits**  
**AMERICAN CONSTITUTIONAL HISTORY (SI)**  
 Study of basic principles of the American constitutional system. Emphasis on the judicial interpretation and application of these principles in construing the powers of the government and the rights of persons. Examines the historical background of major federal court decisions.

**411** **Three Credits**  
**TWENTIETH-CENTURY RUSSIA (SI)**  
 Study of the background of the 1917 revolution, the emergence of the USSR, and its impact upon other nations.

**418** **Three Credits**  
**SOUTHERN HISTORY (I)**  
 Survey of the social, political, and economic development of the Southern United States.

**420/520** **Three Credits**  
**COMPARATIVE HISTORY OF MINORITIES IN THE U.S. FROM THE COLONIAL PERIOD TO THE PRESENT (SI)**  
 Focus on the diversity of America's population, the factors which shaped the coming of various people to America, their adjustments to a new homeland, and the contributions various groups have made.

**438** **Three Credits**  
**THE UNITED STATES FROM THE 1890s TO 1932**  
 Study of the impact of industrialism, urbanization, racial problems, foreign policy, and World War I.

**439** **Three Credits**  
**THE UNITED STATES FROM 1932 TO PRESENT (SO)**  
 Study of social, economic, and political changes, including the Great Depression, the New Deal, World War II, the Cold War, the 1950s and 1960s, to the end of the century. Also includes the Black Revolution and other contemporary developments.

**446** **Three Credits**  
**LATIN AMERICA: THE COLONIAL PERIOD (O)**  
 Study of the leading Native American cultures of 1500 AD, their conquest by Iberian adventurers, the making of colonial institutions and cultures, and the eventual origins of independence movements.

**448** **Three Credits**  
**SLAVERY IN THE ATLANTIC BASIN (SI)**  
 Study of the development of slavery in the Atlantic Basin from its Western African/Islamic/European origins through the dreaded Middle Passage to the Caribbean, Latin America, and the American South.

**451** **Three Credits**  
**GERMANY FROM THE RENAISSANCE TO UNIFICATION**  
 Study of German history from the Trans-Alpine Renaissance and the Protestant Revolution through unification under Bismarck, economic, political, social, and cultural forces. Emphasis on the religious struggle, the evolution of Prussia, and the impact of the Napoleonic wars.

**452** **Three Credits**  
**GERMANY SINCE UNIFICATION**  
 Study of political, cultural, and military development under Bismarck and William II including the First World War, defeat, and republican government; Nazism, the Second World War and defeat; partition, the struggle to regain prestige and reunification.

**475** **Three Credits**  
**EMERGENCE OF MODERN CHINA (1368-1911) AND MODERN JAPAN (1867-1921) (SI)**

Study of political, economic, social, and intellectual currents in China and Japan and their responses to the Western Challenge.

**476** **Three Credits**  
**MODERN CHINA AND MODERN JAPAN**  
 Study of the interplay of ideology, nationalism, economic ideas, and culture in twentieth-century Japan and China.

**490** **One to Three Credits**  
**SPECIAL TOPICS IN HISTORY (SI)**  
 Opportunities to study and examine historical problems of special interest.

**494** **Three Credits**  
**INTERNSHIP**  
**PREREQUISITE: Senior with Minimum of 24 Hours of History**  
 Development of knowledge and skills in fields related to history, for example, museum work or digital projects. A minimum number of clock hours in an approved placement is required.

**497** **Three Credits**  
**INTRODUCTION TO HISTORICAL RESEARCH**  
**PREREQUISITES: Minimum of 15 hours lower level (1XX, 2XX) history courses and 9 hours of upper level (3XX, 4XX) history courses.**  
 Introduction to historical methodology, research, website application, and writing. Survey of the major types of historical sources and different approaches to historical inquiry. Original research project includes a research paper, and the creation of a website with a searchable database.

**501** **Three Credits**  
**TOPICS IN AMERICAN HISTORY**  
 Lecture or seminar topics to be selected by course instructor.

**502** **Three Credits**  
**TOPICS IN EUROPEAN HISTORY**  
 Lecture or seminar topics to be selected by course instructor.

**503** **Three Credits**  
**TOPICS IN NON-WESTERN HISTORY**  
 Lecture or seminar topics to be selected by course instructor.

**516** **Three Credits**  
**AMERICA AND THE RISE OF THE CITY: 1865 TO THE PRESENT**  
 Study of population growth, industrialization and urbanization, urban decay, and renewal providing related reading in the economic, political, and governmental development from the Post-Civil War town to the modern megalopolis.

## HOTEL AND RESTAURANT MANAGEMENT - HRM

**100** **Three Credits**  
**PROFESSIONAL DEVELOPMENT (FO)**  
 Study of career development, professional conduct, portfolio development, interviewing, etiquette and social development, customer service, and proper dress.

**115** **Three Credits**  
**INTRODUCTION TO HOSPITALITY (FO)**  
 Overview of various facets of the industry's restaurants, hotels, resorts, travel, tourism, and clubs. Emphasis on general operating procedures and professional management principles with the inclusion of career planning and exposure to role models. Field trips and hospitality executive guest lecturers required.

**120** **Three Credits**  
**SANITATION PRINCIPLES (SO)**  
 Study of sanitation standards for food and beverage establishments, food-handling practices, and microorganisms and their control.

**150** **Three Credits**  
**TOURISM PRINCIPLES (O)**  
 Study of cultural tourism, sociology of tourism, components and supply, tourism development, economic role of tourism demand, the marketing of tourism, and the international scope of tourism.

**200** **Three Credits**  
**COMPUTERS IN HOSPITALITY (SI)**  
 Study of computer applications used in the hospitality industry. Emphasis on the different software packages available and the programs they run.

**210** **Three Credits**  
**FRONT OFFICE MANAGEMENT (FO)**

Study of principles and procedures used in effective hotel/motel front office management. Emphasis on operation of specific equipment, planning and forecasting hospitality needs.

**220, 220L** **One /Two Credits**  
**INTRODUCTION TO FOOD PREPARATION/LABORATORY (SI)**  
 Introduction to commercial food preparation, nutrition, standard product identification, and storage which includes classroom instruction, demonstrations, and actual cooking experience. Emphasis on explanations of techniques and procedures of quality/quantity food production.

**230** **Three Credits**  
**HOSPITALITY ACCOUNTING I (SI)**  
 Study of the management aspects of accounting and financial statement analysis as they relate to hospitality operations which begins with an introduction to the Generally Accepted Accounting Principles and explains the system of double-entry accounting. Emphasis on understanding analysis and interpretation of financial statements, ratio analysis, internal control, pricing and cost management.

**240** **Three Credits**  
**INTRODUCTION TO GAMING**  
 Overview of gaming; topics include the economics of the gaming industry, its interface with the hotel, organizations and terminology.

**242** **Three Credits**  
**THE TRAVEL AGENCY**  
 Examination of the services and functions of retail and wholesale travel agencies, including agency administration, procedures, ticketing, accounting, promotion, and travel counseling.

**280** **Three Credits**  
**DINING ROOM AND BEVERAGE MANAGEMENT OPERATIONS (SO)**  
 Introduction to the dining room and beverage service operation found in the Hospitality Industry. Elements of showmanship and techniques for promoting sound guest relations are stressed. Experience in working on campus and off, in addition to attending regular classes.

**300** **Three Credits**  
**PURCHASING (FO)**  
 Exploration of the procedures and practices utilized in purchasing items and services for the hospitality industry. Emphasis on the procurement cycle, legal aspects of purchasing, standards and specifications of items, sources of supplies, and distribution systems.

**310** **Two Credits**  
**PROFESSIONAL DEVELOPMENT (SO)**  
 Introduction to aspects of the hospitality industry and related areas that are not available in regularly scheduled courses.

**330** **Three Credits**  
**HOSPITALITY ACCOUNTING II (SI)**  
**PREREQUISITE: HRM 230**  
 Examination of various approaches to managerial accounting from the perspective of hospitality operations. Emphasis on the cost-volume-profit approach to decision-making, use and source of working capital, cash-flow analysis, investment decision-making, and market, as well as financial feasibility studies.

**331** **Three Credits**  
**FOOD AND BEVERAGE COST CONTROL (SO)**  
 Fundamentals of food, beverage, and labor cost control for hotel and restaurant operations.

**340** **Three Credits**  
**TRAVEL AND TOURISM MARKETING**  
 Study of marketing principles and practices used to meet the needs of the hospitality industry. Emphasis on the role of marketing, the role of advertising and promotion in the hospitality, and effective use of marketing strategies in the hospitality industry.

**342** **Three Credits**  
**THE RECREATION INDUSTRY (SI)**  
 Study of leisure and the recreation industry, their interrelationships to American lifestyles, and their implications for the hospitality industry.

**351** **Three Credits**  
**CONVENTION AND EXHIBIT SERVICES (SI)**  
**PREREQUISITE: HRM 340**  
 Emphasis on organizing, arranging, and operating conventions, trade shows, and concessions. Examination of methods of sales used in booking conventions and trade shows, and division of administrative responsibility in their operation.

- 359, 359L** **One /Two Credits**  
**COMMERCIAL FOOD PRODUCTION/LABORATORY (FO)**  
**PREREQUISITES:** HRM 220, 220L  
 Principles and practices of large quantity food preparation and service. Topics include Principles and Practices of Large Quantity Food Preparation and Services, Production, Efficient Work Methods, Quality Control, Safety, and Sanitary Food Handling. Laboratory food experiences included.
- 361** **Three Credits**  
**TRAINING FOR THE HOSPITALITY ORGANIZATION**  
 Overview of the key principles of employee training, management training and development, and pre-opening training. Development of a training plan for a hospitality facility.
- 381** **Three Credits**  
**FACILITIES LAYOUT AND DESIGN (O)**  
 Study of hospitality facilities, layouts, and designs, exterior and interior; building systems; space allocations; equipment; and budgets.
- 382** **Three Credits**  
**INCENTIVE TRAVEL**  
 Study of the use of travel as an incentive to help meet marketing objectives, including the organization and marketing of transportation, hotels, restaurants, tour and ground operators, destination, and other creative services.
- 387** **Three Credits**  
**FAIR AND AMUSEMENT PARK ADMINISTRATION**  
 Focus on the management and marketing of fairs and amusement parks, including crowd control, concessions, security and contract negotiations.
- 391, 391L (FO)** **Three/One Credit**  
**MANAGEMENT INTERNSHIP/LABORATORY**  
 Supervised on-the-job management training at selected facilities. Minimum of 250 clock hours required.
- 400** **Three Credits**  
**RESTAURANT MANAGEMENT (O)**  
 Theories and principles of organization and administration, the tools of managerial decision-making, and the management process, with particular reference to the hospitality industry.
- 401** **Three Credits**  
**CLUB AND RESORT MANAGEMENT**  
 Survey of the organization and management of member-owned and proprietary private clubs and resorts. Study of relationship between board of directors, management, employees, club committees, and club members. Emphasis on budget preparation, including applicable tax laws. Field trips required.
- 402** **Three Credits**  
**MANAGEMENT BY MENU**  
 Principles of menu planning applied to the food services industry, including the menu and financial success, the menu and marketing, measuring menu effectiveness, menu writing procedures, and menu analysis and feasibility. Principles of table service for all types of food services.
- 440** **Three Credits**  
**HOSPITALITY SALES AND ADVERTISING (O)**  
 Study of hospitality sales and advertising with emphasis on practical sales techniques, proven approaches to selling to targeted markets, and advertising's role in sales.
- 441** **Three Credits**  
**RESTAURANT ENTREPRENEURSHIP: HOW TO PLAN, OPEN AND RUN A SUCCESSFUL RESTAURANT**  
 Exploration of the factors necessary for the successful start-up or take-over of a restaurant. Procedures are set forth for determining the entrepreneur's suitability (personal characteristics) as well as the market and financial feasibility of the project. Emphasis on concept development, seating, construction, menu, design, equipment, staffing and management necessary to maximize the chances for success.
- 448** **Three Credits**  
**CRUISE SHIP ADMINISTRATION**  
 In-depth discussion of the growth, direction, organization, structure and marketing concepts relating to the cruise industry. Reference of all aspects of the cruise industry, including philosophy, management, staffing, operations and marketing strategies.
- 449** **Three Credits**  
**INTERNATIONAL TOURISM**  
 Study of international travel and tourism. Focus on the economic, social, political, and environmental considerations of international tourism management and development.
- 462** **Three Credits**  
**HUMAN RESOURCE MANAGEMENT (SI)**

Study of the relationship between individual employees and the hospitality industry. Analysis of human behavior, attitudes, motivation strategies, stress management, employee wages, and productivity.

**466** **Three Credits**  
**MULTI-CULTURAL MANAGEMENT IN THE HOSPITALITY INDUSTRY**

Analysis of the interaction of persons and groups of various ethnic backgrounds within the work environment. Review of management to develop awareness and acceptance of the differences within the work force and to provide motivation and understanding of various needs.

**471** **Three Credits**  
**HOSPITALITY INDUSTRY LAW (SI)**

Introduction to fundamental laws and regulations applied to the hospitality industry. The case-study approach is used to develop awareness and understanding of the legal problems confronting the executive in his/her policy and decision-making role.

**481** **Three Credits**  
**HOSPITALITY PROPERTY MANAGEMENT**

Study of the problems of cost and operation of pest control, security, parking, general cleaning and upkeep, laundry, fire prevention, pools, tennis courts, and care of guest rooms and public space, with emphasis on equipment, personnel, and modern innovations.

**490** **Three Credits**  
**SENIOR PROJECT (SO)**

**PREREQUISITES:** HRM 391, HRM 391L  
 Emphasis on providing the student with the opportunity to engage in a research project designed to showcase competence and developed managerial knowledge.

**494** **Three Credits**  
**HOSPITALITY FRANCHISING**

Emphasis on the unique difference between franchise and company-owned properties and the application of special techniques required to manage these differences.

## HUMANITIES - HUM

**210** **Three Credits**  
**HUMANITIES (FO)**

Study of the creative expression of the Western world, from the Italian Renaissance to the twentieth century. Emphasis on the philosophical and social matrix out of which these artistic expressions have developed.

**211** **Three Credits**  
**HUMANITIES (SO)**

Exploration of the Non-Western World. Emphasis on an understanding of the great religious traditions and the world views which have shaped the values, expressions, and the social structures of the people.

## INDUSTRIAL EDUCATION - IED

**170** **Three Credits**  
**FUNDAMENTALS OF MASONRY I**

Study of the historical significance of brick making with emphasis on the importance of design and structural soundness in masonry construction, and opportunities for practical use and care of masonry tools.

**171** **Three Credits**  
**FUNDAMENTALS OF MASONRY II**  
**PREREQUISITE:** IED 170

Study of the different mixtures of mortar, use of tools, and methods of performing unfinished and finished common brickwork; piers and walls of different bonds as examples.

**354** **Three Credits**  
**COURSE DEVELOPMENT IN VOCATIONAL EDUCATION**

**PREREQUISITES:** Four successful semesters in major technical electives or equivalent Journeyman experience. Identification and application of analysis in the development of systematized instruction. Students plan and construct a course of study, including terminal performance objectives, manipulative and information elements arranged in logical sequence, special projects and activities, designated instructional aids and techniques, and appropriate practices for implementing and evaluating instruction.

**360** **Two Credits**  
**INSTRUCTIONAL MATERIALS**

**PREREQUISITE:** IED 354

Introduction to sources, types, and procedures for obtaining, organizing, and evaluating teaching materials for shop and laboratory instruction. Emphasis on locating, appraising, and utilizing a variety of audio-visual aids and teaching strategies appropriate for individual and group instruction.

**451** **Three Credits**  
**METHODS OF LABORATORY INSTRUCTION**  
**PREREQUISITES:** IED 354; SED 380

Implementation of performance of effective teaching behaviors. Development of competence in writing instructional objectives, planning systematic instruction units, effectively teaching manipulative and informational lessons, and utilizing a variety of instructional aids and techniques.

**452** **Three Credits**  
**MEASUREMENT IN INDUSTRIAL EDUCATION**

**PREREQUISITE:** Senior Standing  
 Study of the purposes and appropriate uses of standardized and informal teacher-made instruments for appraising student performance. Application of basic principles for constructing various types of test items and measuring instruments, center-on-referenced objectives, properly administering tests, and interpreting the result.

**458** **Two Credits**  
**CURRENT PROBLEMS FOR INDUSTRIAL TEACHERS**

**PREREQUISITE:** Assignment to Directed Teaching  
 Directed teaching practicum exploring problems in the occupational education environment. Cooperative advisement of prospective teachers by seminar coordinator and area advisors. Emphasis on development of competence in motivating learners, maintaining discipline, writing letters appropriate for securing job placement, and preparing for job interviews and graduate study.

**459** **Three Credits**  
**ADMINISTRATION AND COORDINATION OF COOPERATIVE EDUCATION**

**PREREQUISITE:** Permission  
 Development of the special competencies required of teacher coordinators for the selection of students and training agencies, including provision of related instruction and the coordination of in-school and on-the-job activities of cooperative education students in secondary schools.

**460** **Three Credits**  
**DEVELOPMENT OF RELATED INSTRUCTION FOR COOPERATIVE EDUCATION**

**PREREQUISITE:** IED 459  
 Acquisition of competencies required for identifying and developing the variety of specialized materials needed for related instruction of students in secondary cooperative education programs. Emphasis on techniques needed in developing and organizing materials appropriate for small group and individual instruction.

**461** **Three Credits**  
**INSTRUCTIONAL LABORATORY MANAGEMENT**

**PREREQUISITE:** Permission  
 Study of plans and layouts peculiar to the school industrial laboratory. Emphasis on competency development for prospective teachers in organizing and executing shop instructional aids and techniques, and appropriate practices for implementing and evaluating.

## INDUSTRIAL MANAGEMENT TECHNOLOGY - IMT

**205** **Three Credits**  
**INDUSTRIAL SAFETY AND MANAGEMENT (EE)**

Study of the nature, background, importance, and trends in industrial safety. Major emphasis on regulatory aspects of industrial safety, identification and controlling safety hazards, accident and injury analysis, development of safety goals, material handling; and fire prevention and protection.

**244** **Three Credits**  
**INDUSTRIAL SPECIFICATIONS AND TECHNICAL DOCUMENTATION (EE)**

**PREREQUISITE:** ENG 102  
 Development of proficiency in writing technical reports through collecting, organizing, and presenting materials in specialized areas.

**303** **Three Credits**  
**INTERNSHIP IN TECHNOLOGY (EE)**

Experience in developing and refining skills that requires a transition into career-related positions relative to specialty programs. The purpose of the internship is to acquire a

minimum level of practical application of the theory and content in the specialty program.

**340 Three Credits**  
**ENGINEERING ECONOMICS (FO)**  
 Evaluation of engineering alternatives by quantitative methods. Application to problems in depreciation of assets, their replacement analysis, break-even points, increment costs, and production alternatives.

**410 Three Credits**  
**FIRST-LINE SUPERVISION AND FOREMANSHIP (EE)**  
 Study of a management development for business, industrial, and institutional supervisors. Emphasis on motivation, leadership, decision-making, and supervisory skills.

**411 Three Credits**  
**INVENTORY MANAGEMENT (FO)**  
 Study of inventory classifications, inventory control, optimum inventory, and future trends in inventory management.

**415 Three Credits**  
**INDUSTRIAL MAINTENANCE MANAGEMENT (SI)**  
**PREREQUISITES: IMT 105 and 411**  
 Identification and appraisal of industrial maintenance management functions, organizational problems, and practices. Consideration given to key factors for optimizing maintenance efficiency and effectiveness.

**420 Three Credits**  
**LABOR AND INDUSTRIAL RELATIONS (SO)**  
 Discussion of why individual groups and organizations in unions, management, and government act as they do in industrial relations with emphasis on psychological and sociological factors.

**423 Three Credits**  
**MOTION AND TIME STUDY (SI)**  
 Methods, materials, tools and equipment of industry for purposes of improvement and standardization.

**425 Three Credits**  
**PLANT LAYOUT AND MATERIAL HANDLING (SI)**  
 The fundamental theories, practices, and methods for design of manufacturing facilities; materials handling equipment and services.

**445 Three Credits**  
**STATISTICAL QUALITY CONTROL (EE)**  
 Introduction to the principles of quality control in business and industrial engineering/technological managerial environments that provide techniques and procedures for determining and maintaining the quality of industrial products. Emphasis on random sampling, probability theories, and statistical methods for practical quality controls to ascertain if products meet industrial specifications.

## INTERDISCIPLINARY STUDIES - INT

**308 Three Credits**  
**INTRODUCTION TO INTERDISCIPLINARY STUDIES (E)**  
 Survey of major concepts and processes that explain interdisciplinarity; the influences of culture, socialization and language on meanings of social interaction and critical thinking, and interdisciplinary research; the consequences of modernism, postmodernism and globalization for contemporary living. Social science paradigms such as feminist and Afro-centric ideas are explored in order to develop analytic and synthetic insights related to beliefs, values, laws and actions of human groups.

**322 Three Credits**  
**APPROACHES TO CRITICAL ANALYSIS (E)**  
 Examination of how characteristic logical constructs are employed in reading, writing, and speech acts; modeling and application of modes of analysis that develop critical thinking skills and flexible orientation toward reading and writing. Focus on current themes and issues in globalization.

**360 Three Credits**  
**FOUNDATIONS OF RESEARCH IN INTERDISCIPLINARY STUDIES (E)**  
 Exploration of relationships between social theory and the interdisciplinary process; investigates rationales and appropriate applications of qualitative and quantitative research methods; examines techniques for formulating thesis statements and hypotheses; reviews salient factors for developing valid and reliable questionnaires, and constructs researchable proposals.

**375 Three Credits**  
**LANGUAGE AND SOCIETY (E)**  
 Examination of the fundamental characteristics of language as a system of signs and symbols used to interpret and influence social and behavioral environments. Exploration of common linguistic and hegemonic practices and the underlying assumptions that sustain them; shows language as a medium for understanding the world and highlights contrasts between social and written reality. Topics include the uses of English in globalization vis-à-vis voices of race, gender and other minorities.

**411 Three Credits**  
**IDEAS AND THEIR INFLUENCES (E)**  
 Investigation of the origins (historical, social and cultural) of ideas, theories, and paradigms in the Western intellectual tradition; their influences in contemporary globalization; a holistic approach to an analysis, synthesis and interpretation of pre-Platonic, Renaissance, Enlightenment, modern, postmodern and globalization ideas.

**412 Three Credits**  
**CONTEMPORARY GLOBALIZATION (EE)**  
 Critical survey of issues and forces shaping interdependencies among the world's nations; their meanings for global resource management and sharing; global investment, trade, production, the free-market system, Western democratic intrusions, technologies and the global telecommunications revolution; their significance for new social groupings, human welfare, cultural and religious diversity, and education. Focus on diminishing national boundaries, migration of labor, world hegemonic powers and the role of the United Nations.

**470 Three Credits**  
**SENIOR SEMINAR (EE)**  
**PREREQUISITES: INT 308, 322, 360, 375, 411, 412**  
 Wide-ranging examination of the historical and theoretical developments that led to the evolution of Interdisciplinarity; assessment of societal parameters impacting the proliferation of new areas of inquiry and their outgrowth as complementary or counteragents of particular institutionalized modes of behavior and thought; development of adequate descriptions and explanations for current and evolving social and cultural practices, some that contrast sharply with normative perspectives grounded in configured traditional thought.

**477 Three Credits**  
**SENIOR THESIS (EE)**  
**PREREQUISITES: INT 308, 322, 360, 375, 411, 412, 470**  
 Holistic, integrative research processes that accommodate concepts, language and paradigms of various disciplines using qualitative research methodologies to collect data for analysis, synthesis and interpretation of findings. Research project is supervised by a thesis supervisor.

## JAPANESE - JPN

**111 Three Credits**  
**ELEMENTARY JAPANESE I (SI)**  
 Introduction to reading, writing, pronunciation, grammar, structure, vocabulary, and conversation.

**112 Three Credits**  
**ELEMENTARY JAPANESE II (SI)**  
**PREREQUISITE: JPN 111 or Equivalent**  
 Introduction to reading, writing, pronunciation, grammar, structure, vocabulary, and conversation.

**113 Three Credits**  
**JAPANESE CULTURE (SI)**  
 Survey of aspects of culture and language of both traditional and modern Japan.

**211 Three Credits**  
**INTERMEDIATE JAPANESE I (SI)**  
**PREREQUISITE: JPN 112 or Equivalent**  
 Review of grammar, reading of moderately difficult prose, oral practice, and written composition.

**212 Three Credits**  
**INTERMEDIATE JAPANESE II (SI)**  
**PREREQUISITE: JPN 211 or Equivalent**  
 Intensive and extensive study and reading of modern prose, oral practice, and composition.

## JOURNALISM - JRN

**210 Three Credits**  
**ADVERTISING PRINCIPLES (FO)**  
 Introduction to the basic principles of advertising and its practice.

**220 Three Credits**  
**BASIC WRITING (EE)**  
**PREREQUISITE: ENG 101**  
 Introduction to writing for all mass media, including intensive study of basic journalistic composition elements (grammar, punctuation, spelling) in preparation for professional reporting, writing, and editing courses.

**221 Three Credits**  
**NEWS WRITING (EE)**  
**PREREQUISITES: JRN 220; ENG 102**  
 Introduction to the fundamentals of news evaluation, gathering and writing with special emphasis on newspaper style.

**240 Three Credits**  
**PRINCIPLES OF PUBLIC RELATIONS (SO)**  
 Analysis of the history and growth of public relations and its role within organizations including ethical standards, basic principles, and problems of public relations.

**290 Three Credits**  
**DIGITAL PHOTOGRAPHY (SI)**  
 Study of the integration of basic photography with computer technology. Emphasis on the digital photography process through in-class discussion, field assignments and hands-on laboratory experience.

**299 Three Credits**  
**MULTICULTURALISM AND MASS MEDIA (FO)**  
 Historical survey of participation by people of color in early publications, and the industries of print and broadcast journalism, entertainment television and film, and advertising. Emphasis on case studies and other methods to examine interactions between societal conditions and mediated reality.

**313 Three Credits**  
**ADVERTISING/PUBLIC CAMPAIGNS (SI)**  
 Philosophy and techniques of developing an advertising campaign with emphasis on integrating all creative elements, including market research; developing advertising objectives; plans and strategies; budgeting; scheduling of media; coordination of sales promotion; and measuring effectiveness.

**323 Three Credits**  
**WRITING SPECIAL ARTICLES (SI)**  
**PREREQUISITE: JRN 221**  
 Study of advanced writing involving feature articles for newspapers and magazines. Emphasis on an analysis of markets for feature articles.

**330 Three Credits**  
**COPY EDITING (EE)**  
**PREREQUISITE: JRN 221**  
 Study of the fundamentals of copy editing, headline writing, re-writing and general copy desk work.

**332 Three Credits**  
**GRAPHICS OF COMMUNICATION (SI)**  
 Study of the basic theories and skills of visual communication, including the selection and editing of photographs, the use of maps, charts, graphs, artwork and other graphic-design elements. Emphasis on common graphic programs such as Quark and Adobe Photoshop.

**341 Three Credits**  
**PUBLIC RELATIONS PRACTICE (FO)**  
**PREREQUISITE: JRN 240**  
 Study of the management and decision-making process in public relations. Emphasis on the case history approach to evaluate strategic planning in a variety of situations and areas, including business, government, non-profit and education.

**342 Three Credits**  
**PROMOTIONAL WRITING (SO)**  
**PREREQUISITE: JRN 210 or 240**  
 Planning, implementing and measuring the effectiveness of public relations programs including techniques of using controlled and uncontrolled media to reach various target publics. Study of producing materials originating from public relations departments and agencies; publicity; human relations; writing and editing business, industrial, and house publications; and fund raising.

**461 Three Credits**  
**PRINCIPLES OF NEWSPAPER MANAGEMENT**  
 Study of basic economic theory relative to newspapers, including problems of newspaper management, staffing, and budgeting; circulation policies and methods; advertising; marketing and promotion using the case study method.

**493, 495 Three Credits**  
**INTERNSHIP OR PRACTICUM (EE)**  
**PREREQUISITE: Consent of Instructor**  
 Experience working for a newspaper or magazine, in public relations, or with an advertising department or agency.

(Practicum is an on-campus position. Internship is an off-campus position.)

**497 Three Credits**  
**DIRECTED RESEARCH (SI)**  
**PREREQUISITES:** Consent of Instructor, Advisor and Department Head  
 Individual study and/or research in journalism under the guidance of a journalism instructor.

## LATIN - LAT

**111 Three Credits**  
**Elementary Latin (SI)**  
 Introduction to basic sentence structure and vocabulary with attention to basic syntactic units and cases that are part of universal linguistic knowledge.

## LOGIC - LOG

**210 Three Credits**  
**LOGICAL AND CRITICAL THINKING (EE)**  
 Examination, development and practice of critical thinking skills with emphasis on the deliberate improvement of both everyday thinking skills and basic communication skills (analytical reading and writing). Application of critical thinking skills to problem solving in personal, academic, professional and social dimensions of life.

## MANAGEMENT - MGT

**350 Three Credits**  
**THE ETHICS OF MANAGEMENT (FO)**  
**PREREQUISITES:** BUS 175 and Junior Standing  
 This course will focus on issues and perspectives of right and wrong in American business. Students will survey various philosophical approaches, values, moral reasoning, and social responsibility to determine ethical behavior and morality. These approaches will be applied to real world cases drawn from the various functional area or business.

**365 Three Credits**  
**ORGANIZATIONAL BEHAVIOR AND THEORY (E)**  
**PREREQUISITES:** PSY 210 or Equivalent, Junior Standing  
 Study of organizational behavior and the various social units-including individuals, groups, and group of groups-that constitute organizations. Exploration of relevant theories of the relations and processes among individuals, in and between groups, and in and between organizations. Through experiential approaches, develops social and analytical skills for leadership and membership in organizations.

**368 Three Credits**  
**HUMAN RESOURCE MANAGEMENT (E)**  
**PREREQUISITE:** MGT 365  
 Focus on administering change within organizations through the training and developing of human resources. Experiential activities enhance the development of leadership skills in the training process.

**370 Three Credits**  
**TOTAL QUALITY MANAGEMENT (SO)**  
**PREREQUISITES:** DSC 270 and Junior Standing  
 Introduction to quality management in manufacturing and service organizations with emphasis on the evolution of quality movement worldwide, TQM and "Quality First" Paradigms. Students are exposed to quality principles from a global perspective. The case study approach is used to examine quality planning and implementation in all types of organizations, especially those that won the MBNQA.

**410 Three Credits**  
**LEADERSHIP AND DIVERSITY IN MANAGEMENT (SO)**  
**PREREQUISITE:** MGT 365  
 Focus on how individuals and organizations can effectively, efficiently, and productively adapt to the challenges of diversity in the workforce and in the customer base.

**415 Three Credits**  
**INTERNATIONAL MANAGEMENT (FO)**  
**PREREQUISITES:** Junior Standing; MGT 365  
 Analysis of the operations and the managerial strategies of various types of businesses in the international setting. Focus on the intellectual, political, social, economic, and moral issues that the business and government leaders must face in dealing with international business problems.

**420 Three Credits**  
**ORGANIZATIONAL CHANGE AND DEVELOPMENT (SO)**  
**PREREQUISITE:** MGT 365 and Senior Standing  
 Study of the knowledge base and competencies to be leaders or effective participants in organizational change efforts.

Exposure to various models, determinants, and processes of effective change efforts.

**425 Three Credits**  
**ADVANCED SEMINAR IN MANAGEMENT AND TOTAL QUALITY (SI)**  
**PREREQUISITES:** DSC 370; MGT 365  
 Examination and analysis of real studies of corporate and public sector management situations and problems, including a review of the strengths, weaknesses, opportunities, threats and how they relate to the problem's solution. Development of total quality-based solutions to the specific case studies.

**430 Three Credits**  
**LABOR RELATIONS AND COLLECTIVE BARGAINING (SO)**  
**PREREQUISITE:** MGT 368  
 Exploration of the evolution and characteristics of union-management relations in America including union structure, government and leadership, social significance of unions, legal aspects of labor relations, contract administration, grievance resolution, and affirmative action.

**435 Three Credits**  
**COMPENSATION (FO)**  
**PREREQUISITE:** MGT 368  
 Examination of wage and salary administration and fringe benefit management in organizations including wage and salary administration, job evaluation procedures, compensation plans, fringe benefit analysis and planning.

**476 Three Credits**  
**OPERATIONS MANAGEMENT (E)**  
**PREREQUISITE:** DSC 376  
 Analysis of the economic problems of operations management, design of operating systems, forecasting, capacity planning, layout of facilities, materials and project management, planning and scheduling in production systems.

**478 Three Credits**  
**STRATEGIC MANAGEMENT (E)**  
**PREREQUISITES:** MGT 365, 366; FNC 360; DSC 476; Senior Standing  
 Study of formulating and implementing business and corporate strategic plans and evaluating management strategic performance in complex business environments including the corporate mission and objectives, industry analysis, competitive analysis, environmental analysis, business, corporate, and international strategy.

## MANAGEMENT INFORMATION SYSTEMS - ISM

**284 Three Credits**  
**ADVANCED MICRO COMPUTING (E)**  
 Exploration of complex spreadsheet problems, sensitivity analyses, and the use of database management systems within microcomputer software.

**288 Three Credits**  
**PRINCIPLES OF E-BUSINESS (SI)**  
**PREREQUISITE:** BUS-175 ISM-284  
 This course introduces the processes involved with planning, starting, operating, and marketing an e-business in today's environment. Timely topics such as creating business plans, securing financing, marketing, payment methods, Web site development, Web technologies, and e-business security are discussed.

**372 Three Credits**  
**BUSINESS APPLICATIONS IN VISUAL C++ (SO)**  
**PREREQUISITE:** ISM- 284  
 Application of the object model through C++ providing the necessary tools to design and implement business applications using C++'s Visual Workbench/IDE.

**374 Three Credits**  
**BUSINESS APPLICATIONS IN VISUAL BASIC (EE)**  
**PREREQUISITE:** ISM- 284  
 Study of Visual Basic development, language syntax, and programming in an event-driven environment.

**375 Three Credits**  
**MANAGEMENT INFORMATION SYSTEMS AND E-COMMERCE (E)**  
**PREREQUISITE:** ISM- 284  
 Study of functional information systems, e-commerce concepts, and ethical issues in MIS and E-Commerce.

**378 Three Credits**  
**BUSINESS APPLICATIONS IN JAVA (EE)**  
**PREREQUISITE:** ISM- 284

An introduction to JAVA as an object-oriented language used to write JAVA applets and applications. Business examples incorporating multimedia, multithreading, networking, object-oriented concepts of: abstraction, encapsulation, inheritance, polymorphism, persistence, and dynamic binding.

**390 Three Credits**  
**BUSINESS DATABASE MANAGEMENT (EE)**  
**PREREQUISITES:** ISM 284  
 Introduction to the design and development of database systems. Exploration of the database environment; relational aspects of the database theory; structured query language features of SQL server.

**410 Three Credits**  
**INFORMATION SYSTEMS ANALYSIS AND DESIGN (EE)**  
**PREREQUISITE:** ISM-375  
 Introduction concepts and methods used in the analysis and design of business information systems. Opportunity to study the SDLC phases through group projects and CASE tools such as Visible Analyst.

**415 Three Credits**  
**WEB APPLICATION DEVELOPMENT FOR E-BUSINESS (EE)**  
**PREREQUISITES:** ISM-372 or ISM-374 or ISM-378  
 Study of current technologies for designing and developing web based e-business applications. Topics include Active Server Pages, Scripting Languages, database integration, and others.

**419 Three Credits**  
**NETWORKING (EE)**  
**PREREQUISITE:** ISM- 284  
 Introduction to current networking technology. Exploration of OSI reference model, basic network designs, network components, network architectures, network operations, network administration and support, network hardware and software installation, and NT Server installation and configuration. Extensive hands-on training provided.

**422 Three Credits**  
**DECISION SUPPORT AND EXPERT SYSTEMS (EE)**  
**PREREQUISITE:** ISM 375  
 Study of the manager's responsibilities in problem-solving and decision-making and areas in which computers can be used as tools to gain insight needed to support decision alternatives.

**499 Three Credits**  
**SENIOR DEVELOPMENT PROJECT (EE)**  
**PREREQUISITES:** ISM-415  
 Application of computer programming, and system development concepts, principles, and practices to comprehensive system development projects. Use of project management methods, project scheduling and control techniques, formal presentations, and walk throughs in the solution of information systems problems.

## MANUFACTURING TECHNOLOGY - ITM

**147 Three Credits**  
**INTRODUCTION TO MANUFACTURING PROCESSES (FO)**  
**PREREQUISITE:** Consent of Department Chairman  
 Focus on the study and application of processes for industrial product manufacture including selected machining processes and synthetic-forming processes.

**246 Three Credits**  
**PRINCIPLES OF MANUFACTURING**  
**PREREQUISITE:** TMD 145  
 Comprehensive coverage of basic manufacturing processes including traditional and latest developments. Emphasis on descriptive and qualitative concepts, including surfaces of materials, casting, bulk deformation, sheet metal forming, material removal, plastic processing, powder metal and ceramic processing, fastening, joining, advanced manufacturing concepts, and manufacturing economics.

**248 Three Credits**  
**FABRICATION AND WELDING PROCESSES (SI)**  
**PREREQUISITE:** IMT 147  
 Study of metal fabrications, basic fusing and nonfusion welding processes of shielded electric arc, TIG, MIG, plasma, resistance, gas, and other related processes. Crystallization and plastic deformation are considered in relation to the effects of working temperatures of the molecular structure, grain size, and ultimately, in the properties of metals; applied analysis of mechanical and physical properties of materials.

**320 Three Credits**  
**MACHINE TOOL PROCESSES (SI)**

**PREREQUISITE: IMT 147**

Theory and set-ups for precision matching including turning, milling, surface grinding, and metrology.

**353 Three Credits**  
**COMPUTER NUMERICAL CONTROL AND COMPUTER-AIDED MANUFACTURING (SO)**

**PREREQUISITES: ITM 147; CIT 280; MTH 153**

Development of insight into the advantages of computer numerical control and computer-aided manufacturing tools and techniques. Experience gained in CNC and CAM programming, operation, and equipment.

**400 Three Credits**  
**ADVANCED MACHINE TOOL PROCESSES (SI)**

**PREREQUISITES: IMT 147, 320 and 353**

Study of producing machine set-ups, primary and secondary machine operations, laboratory experience in the application of numerically-controlled machine tools, and study of chinless machine processes of metal removal.

**453 Three Credits**  
**ROBOTICS AND COMPUTER-INTEGRATED MANUFACTURING SYSTEMS (FO)**

Development of advances in automated manufacturing. Experience gained in determining applications, interfacing, and programming of industrial robots developing a background in computer-integrated manufacturing systems.

## MARKETING - MKG

**366 Three Credits**

**PRINCIPLES OF MARKETING (E)**

**PREREQUISITE: Junior Standing**

Survey of the field of marketing, concentrating on the marketing mix. Significant emphasis on the relationship between marketing activities and the consumer, the ethical and international aspects of marketing in entrepreneurial and corporate environments.

**367 Three Credits**  
**CUSTOMER IDENTIFICATION AND ANALYSIS (SO)**

**PREREQUISITE: MKG 366**

Study of customer characteristics needed to write an effective marketing plan. Emphasis on both the household customer and organizational customers in relation to positioning, promotion, and marketing strategy.

**411 Three Credits**

**SALESMANSHIP (E)**

**PREREQUISITE: FNC 366; Junior Standing**

Study of the principles and techniques of personal selling and sales presentations including sales policies and the problems involved.

**412 Three Credits**

**MARKETING MANAGEMENT (FS)**

**PREREQUISITE: MKG 366; Senior Standing**

Study of the organization and management of marketing with emphasis on strategic decision-making for entrepreneurs and corporate entrepreneurs.

**413 Three Credits**

**PRINCIPLES OF RETAILING (SO)**

**PREREQUISITE: MKG 366**

Study of the organization and management of retail establishments with emphasis on problems and trends in retailing from the point of view of the entrepreneur including such factors as store location, merchandise assortment and budget planning, inventories planning and control, customer support services, advertising and promotions, and other topics.

**414 Three Credits**  
**ADVERTISING AND PROMOTION MANAGEMENT (SS)**

**PREREQUISITE: MKG 366**

Study of the fundamental principles of communication as they apply to marketing and promotion including management of the promotional mix, advertising, personal selling, sales promotion, publicity, and point of purchase.

**415 Three Credits**

**NICHE MARKETING (SO)**

**PREREQUISITE: MKG 366**

Study of the economic, social, and psychological characteristics of blacks as they relate to the field of marketing including demographic characteristics, psychological perceptions, shopping patterns, the role of black media, and the black businessperson and the marketing concept.

**416 Three Credits**

**INTERNATIONAL MARKETING (O)**

**PREREQUISITE: MKG 366**

Analysis of marketing principles relating to international marketing organizations, marketing channels, channels of distribution, selling, and pricing.

**418 Three Credits**

**INTERNET MARKETING (O)**

**PREREQUISITE: MKG 366 or Permission of Instructor**

Survey of marketing products on the Internet including such topics as uniqueness of the Internet as a marketing tool; Internet commerce; starting an Internet business; marketing mix and the Internet; and designing an Internet Web site.

**476 Three Credits**

**MARKETING SEMINAR (SI)**

**PREREQUISITE: MKG 366**

Discussion of topics related to the field of marketing.

**497 Three Credits**

**MARKETING RESEARCH STRATEGIES AND OPPORTUNITIES (FO)**

**PREREQUISITES: MKG 366; DSC 270; Senior Standing**

Focus on problem definition (opportunity analysis) and data analysis techniques and strategies as applicable to small business owners.

## MASS COMMUNICATIONS - MCM

**211 Three Credits**

**SOCIETY AND MASS COMMUNICATIONS (EE)**

Study of the socio-economic developments related to the growth and development of American newspapers, magazines, books, radio, television, motion pictures, cable and satellite communications.

**220 Three Credits**

**RADIO BROADCASTING (SI)**

**PREREQUISITE: MCM 211 or Permission of Instructor**

Introduction to WNSB-FM and radio station duties. Study of the manner in which WNSB-FM conducts its daily operations and the equipment at the station.

**250 Three Credits**

**TELEVISION PRODUCTION (EE)**

**PREREQUISITE: MCM 211**

Introduction to the fundamentals, essential tools, and techniques of television and audio operations. Structured laboratory exercises provide an understanding of theory, terminology and crew position responsibilities.

**261 Three Credits**

**INTRODUCTION TO MEDIA WRITING (EE)**

**PREREQUISITES: ENG 102; MCM 250**

Introduction to the aural writing style used in broadcast/cable programs. Primary emphasis on news writing for radio and television based on industry formula. Secondary emphasis on applying aural style to more complicated program scripts.

**280 Three Credits**

**HISTORY AND APPRECIATION OF MOTION PICTURES (FO)**

**PREREQUISITE: MCM 211**

Summary of motion pictures as a distinctive medium of expression and communication including the techniques, physical basis, and history of the silent films to sound films of the leading genres, and the directors who illustrated selected phases of film evolution.

**310 Three Credits**

**HISTORY OF MASS COMMUNICATIONS (SO)**

Study of the origin and development of mass media in the United States. Emphasis on the press, radio, television and motion pictures.

**315 Three Credits**

**INTERVIEWING AND INFORMATION GATHERING (FO)**

Study of the identification and utilization of tools necessary in gathering information, setting up, preparing and conducting interviews for broadcast. Emphasis on organization of the information for use in the media and allied industry.

**330 Three Credits**

**ELEC. FIELD PRODUCTION AND EDITING (FO)**

**PREREQUISITES: MCM 250, 261**

Introduction to basic shooting, editing and lighting techniques necessary for field production. Experience shooting and editing a variety of news stories will serve as a resume tape upon completion of the course.

**350 Three Credits**

**TV DIRECTING (FO)**

**PREREQUISITE: MCM 250**

Development of television program producing and directing with emphasis on leadership skills and advanced audio-visual equipment instruction through specific laboratory exercise.

**351 Three Credits**

**INTRODUCTION TO BROADCAST AND FILM CRITICISM (SO)**

**PREREQUISITES: MCM 211, 280**

Analysis of the historical, aesthetic, and critical aspects of broadcast programs and motion pictures. Attendance and viewing of films and evaluations required.

**352 Three Credits**

**SPORTS BROADCASTING (SI)**

**PREREQUISITE: MCM 261**

Prepares students for live on-air sports broadcasting. WNSB-FM and public access cable channels will serve as laboratories for students who meet the requirements for the course. Lectures and laboratory experience emphasize fundamentals of communications, sports language and rules, interviewing and reporting techniques, and research and preparation for announcing games.

**362 Three Credits**

**BROADCAST NEWS WRITING AND REPORTING (SO)**

**PREREQUISITE: MCM 261**

Experience researching, planning, writing, producing and delivering news and public affairs material over campus media. Primary emphasis on television news. Secondary emphasis on radio, internet and new media.

**363 Three Credits**

**AUDIO PRODUCTION (FO)**

**PREREQUISITE: MCM 250**

Study of audio principles, practices, and concepts of communication for radio, television, and motion pictures. Proficiency in campus facilities, including studios and remote locations required.

**390 Three Credits**

**COMPARATIVE MASS MEDIA SYSTEMS (SO)**

**PREREQUISITE: MCM 211**

Survey of international mass media systems focusing on their development, organization, and operation. Emphasis on the similarities and differences of various systems with a critical view of the effect government has on a nation's mass media.

**391 Three Credits**

**RADIO AND TELEVISION ANNOUNCING (FO)**

**PREREQUISITE: MCM 261**

Emphasis on the style, manner, characteristics and performance of broadcast/cable news anchoring and reporting including talk show hosting techniques. Primary focus on participation in a TV lab environment with selected projects broadcast over the campus TV system. Secondary focus on radio, internet and new media productions.

**440 Three Credits**

**LAW AND MASS COMMUNICATIONS (EE)**

**PREREQUISITES: MCM 211; ENG 203**

Examination of the various laws that affect mass communications in the United States including licensing, operations, programming, advertising, defamation, privacy, copyright and other related topics.

**445 Three Credits**

**ETHICS IN MEDIA (SO)**

**PREREQUISITE: MCM 211**

Development of a strong sense of ethical responsibility as communications professionals including case studies of ethical decision-making by news and communications organizations and analysis of ethical codes of various professional groups.

**450 Three Credits**

**MASS COMMUNICATIONS THEORY AND RESEARCH (SO)**

**PREREQUISITE: MCM 211**

Examination of the theory and principles of communications systems and processes including research methods commonly used by communications professionals and trends in media research.

**460 Three Credits**

**CONTEMPORARY ISSUES AND SPECIAL PROBLEMS (FO)**

**PREREQUISITES: MCM 211; ENG 203**

Analysis of current issues and problems in mass media including the roles of media, ethics in media, media criticism, new technology, media market, and the trends of the media industry.

**464 Three Credits**

**ADVANCED TV PRODUCTION (FO)**

**PREREQUISITES: MCM 250, 261, 330, 350**

Capstone course builds on writing, producing and directing skills in order to produce a weekly television program. Production of a news/magazine format, dramatic, or comedic program or segment required.

**470/570 Three Credits Each**  
**BROADCAST/CABLE PROGRAMMING (SO)**  
**PREREQUISITE: Upper-Class Standing**

Introduction to the field of telecommunications (broadcast, cable, and satellite) programming as it relates to programming history and development, structure and formats, program strategies, research, regulation and operating practices.

**476 Three Credits**  
**BROADCAST SALES (FO)**  
**PREREQUISITE: Upper-Class Standing**

Study of principles, structures, strategies, and practices of broadcast, cable, and satellite programming and sales. Emphasis on mid-management areas, which are crucial to the successful operation of all broadcast properties.

**485/585 Three Credits**  
**MEDIA TECHNOLOGIES (FO)**

**PREREQUISITE: Senior Standing or Consent of Instructor for undergraduates, and advice and/or consent of the graduate coordinator for students seeking graduate credit**

Survey of the growth and development of domestic and global broadcasting via cable, satellite systems and the Internet with an emphasis on their development and organization.

**489 Three Credits**  
**MEDIA MANAGEMENT (FO)**  
**PREREQUISITE: Senior Standing**

Exploration of management and administrative principles, roles, functions, structure and goals in the mass media including budget planning, personnel, labor/management relations, and regulation of the print and electronic media.

**490 Three Credits**  
**SPECIAL TOPICS IN MEDIA (SO)**

Opportunities to study and examine media-related and special-interest issues in culture, society, history, economy and politics.

**491 Three Credits**  
**INTRODUCTION TO THE INTERNET: WEB PAGE DESIGN (EE)**

**PREREQUISITE: CSC 200 or Permission of the Instructor**  
 Introduction to HTML writing and web page design and creation of a multi-page website targeted to a particular audience. Usage of search engines to find relevant information and evaluate similar sites for content, structure, quality of information, purpose, and bias required.

**493, 494 Three Credits Each**  
**PRACTICUM (WNSB) (EE)**  
**PREREQUISITES: C or better in ENG 101, ENG 102 and MCM 261**

Real-world experience in radio at WNSB-FM. Emphasis on developing the ability to become creative writers and producers, along with learning radio production techniques.

**496 Three Credit**  
**INTERNSHIP (EE)**  
**PREREQUISITE: Junior or Senior Standing and Consent of Supervising Instructor**

Practical experience in the production departments of radio and television stations, newspapers, film production companies, advertising and public relations agencies, media research organizations, and selected other media-related agencies.

## MATHEMATICS - MTH

**101 Three Credits**  
**ELEMENTARY ALGEBRA (E)**

Developmental approach for students whose backgrounds indicate a need for further review of basic algebra. Mathematics Laboratory required. (Credits do not count toward the mathematics requirements of a student's major.)

**103 Three Credits**  
**CONTEMPORARY MATHEMATICS (E)**  
**PREREQUISITE: MTH 101 or the Equivalent**

Emphasis on global, unifying ideas in mathematics and the connections between contemporary mathematics and modern society. Topics selected from elementary mathematics, logic, probability and statistics, discrete systems, geometry, measurement, and consumer applications. (Satisfies the minimum general education mathematics requirement.)

**105 Three Credits**  
**INTERMEDIATE ALGEBRA (E)**

**PREREQUISITE: MTH 101 or the Equivalent**

Preparation for the precalculus including linear and quadratic equations, graphing, polynomials, roots, radicals, and systems of equations. (Satisfies the minimum general education mathematics requirement.)

**131 Three Credits**  
**PRECALCULUS FOR BUSINESS MAJORS (E)**

**PREREQUISITE: MTH 105 (Grade C or higher) or the Equivalent**

Transition from elementary mathematics to calculus including a review of exponents, factoring, linear and quadratic equations, inequalities, functions, graphs, system of equations, exponential and logarithmic functions.

**132 Three Credits**  
**CALCULUS FOR BUSINESS MAJORS (E)**

**PREREQUISITE: MTH 131 or 151 (Grade: C or higher)**  
 Introduction to elementary calculus including limits, continuity, differentiation, and integration.

**141 Three Credits**  
**ELEMENTS OF MATHEMATICS FOR TEACHERS (EE)**

**PREREQUISITE: MTH 101 or the Equivalent**

Thorough treatment of the modern mathematics curricula for prospective school teachers. Emphasis on sets and logic, number systems, number theory, algebra, geometry and measurement, and probability. Computer-based laboratory component with manipulatives included.

**142 Three Credits**  
**ELEMENTS OF MATHEMATICS FOR TEACHERS (EE)**

**PREREQUISITE: MTH 101 or the Equivalent**  
 Continued treatment of the modern mathematics curricula for prospective school teachers. Emphasis on geometry and measurement.

**151 Three Credits**  
**COLLEGE ALGEBRA (E)**

**PREREQUISITE: MTH 105 or the Equivalent**  
 Study of basic algebra stressing fundamental concepts and reasoning used in mathematics and the sciences. Emphasis on skills necessary for the calculus sequences.

**153 Three Credits**  
**COLLEGE ALGEBRA AND TRIGONOMETRY (E)**

**PREREQUISITE: MTH 151 or Equivalent**  
 Extension of algebra topics and a treatment of trigonometry necessary for the study of advanced subjects in mathematics and the sciences. Preparation for the calculus sequence.

**170 Two Credits**  
**TECHNOLOGY IN THE MATH CURRICULUM (FO)**

**PREREQUISITE: MTH 105 or the Equivalent**  
 Introduction to the graphics calculator and other classroom technologies that assist in learning math, science, and business courses.

**184 Four Credits**  
**CALCULUS I (E)**

**PREREQUISITE: MTH 153 or the Equivalent**  
 Treatment of the essentials of calculus necessary for the study of more advanced subjects in the natural sciences and mathematics including limits, continuity, derivatives and applications, antiderivatives and the Fundamental Theorem of Calculus. Integration of some calculus applications with computer activities included.

**242 Three Credits**  
**HISTORY OF MATHEMATICS (SO)**

**PREREQUISITE: MTH 184**  
 Study of the history and development of mathematics as a vital and integral part of the history of civilization including the history of numbers and numerals; computation; development of geometry, algebra, trigonometry and calculus, and the development of modern mathematics.

**250 Three Credits**  
**ELEMENTARY STATISTICS CONCEPTS (SO)**

**PREREQUISITE: MTH 105**  
 Introduction to statistics including graphical data representation, basic probability concepts, sampling and expectation, confidence interval and hypothesis testing for sample mean and proportion.

**251 Four Credits**  
**CALCULUS II (E)**

**PREREQUISITE: MTH 184**  
 Applications of definite integrals, the calculus of transcendental functions, infinite series, and integration techniques. Some topics are integrated with computer activities.

**252 Four Credits**  
**CALCULUS III (EE)**

**PREREQUISITE: MTH 251**

Investigation of calculus concepts at the intermediate level including polar coordinates, vectors, and the calculus of several variables.

**300 Three Credits**  
**LINEAR ALGEBRA (E)**

**PREREQUISITE: MTH 184**  
 Introduction to the basic concepts, techniques, and elementary applications of linear algebra including matrices, linear systems, gaussian elimination, vector spaces, linear independence, linear transformations, eigenvalues and eigenvectors.

**310 Three Credits**  
**DISCRETE MATHEMATICS (SO)**

**PREREQUISITE: MTH 184**  
 Introduction to discrete math including topics in graph theory, management science, the mathematics of social change, and statistics. Use of manipulatives and other learning tools included.

**311 Three Credits**  
**MODERN GEOMETRY (SO)**

**PREREQUISITE: MTH 184**  
 Re-examination of Euclidean plane geometry as a postulational system. Emphasis on formulating definitions and constructing valid proofs including mathematical reasoning, postulational method, finite geometries, congruence, similarity, parallelism, and construction with ruler and compass.

**323 Three Credits**  
**NUMBER THEORY (SI)**

**PREREQUISITE: MTH 251**  
 Theoretical study of the properties of the integers including prime numbers, congruences, continued fractions, Euclidean Algorithm, factorization, and Diophantine equations.

**331 Three Credits**  
**ALGEBRAIC STRUCTURES (FO)**

**PREREQUISITE: MTH 300**  
 An introduction to modern algebra, which deals with selected algebraic structures (groups, rings, fields, etc.). The course stresses the axiomatic approach and the logic and method of proof.

**351 Three Credits**  
**PROBABILITY AND STATISTICS I (EE)**

**PREREQUISITE: MTH 251**  
 First of a two-semester sequence of probability and mathematical statistics, primarily for majors. Introduction to probability, univariate and multivariate probability distributions and their properties, distributions of functions of random variables, random samples and sampling distributions.

**352 Three Credits**  
**PROBABILITY AND STATISTICS II (SO)**

**PREREQUISITE: MTH 351**  
 Second of a two-semester sequence of probability and mathematical statistics, primarily for majors. Applications of probability, random samples, point and interval estimators and their properties, methods of moments, maximum likelihood, tests of hypotheses.

**355 Three Credits**  
**INTRODUCTION TO REGRESSION ANALYSIS (SI)**

**PREREQUISITE: MTH 251**  
 This course uses regression analysis as a flexible, statistical, problem-solving methodology. Topics include matrix review; variable selection; prediction; multicollinearity; model diagnostics; dummy variables; logistic and non-linear regression. Emphasizes use of computer.

**371 Four Credits**  
**DISCRETE MATHEMATICAL STRUCTURES (EE)**

**PREREQUISITES: MTH 184; CSC 170**  
 An introduction to the area of discrete mathematics that is important to computer science. Topics include logic, sets, functions and relations, algorithms, counting principles, and graph theory.

**372 Three Credits**  
**DIFFERENTIAL EQUATIONS (EE)**

**PREREQUISITE: MTH 251**  
 A first course in ordinary differential equations. Topics include first-order equations, linear differential equations, and variable-coefficient equations. Applications include growth/decay models and the vibrational models.

**373 Three Credits**  
**ADVANCED VECTOR CALCULUS (EE)**

**PREREQUISITE: MTH 252**  
 A one-semester course in the calculus of functions of several variables and vector analysis. Topics include derivatives and integrals of functions of several variables, vector fields, divergence, curl, Green's Theorem, and LaGrange Multipliers.

Course includes selected applications to the physical sciences.

**382 Three Credits**  
**INTRODUCTION TO APPLIED MATHEMATICS (FO)**  
**PREREQUISITE: MTH 372**

A junior-level introduction to applications of mathematics designed for mathematics, computer science, and engineering majors. Topics include difference equations, Laplace transforms, Sturm-Liouville problems, and Bessel functions.

**384 Three Credits**  
**MATHEMATICAL MODELING IN THE SCIENCES (SO)**  
**PREREQUISITE: MTH 184**

A one-semester interdisciplinary course integrating mathematics and science investigations in a mathematical model setting. Students, working in cooperative groups, investigate real-world science problems, formulate model solutions to the problems, and then present their solutions in a classroom setting using various technological aids.

**401 Three Credits**  
**NUMERICAL ANALYSIS I (FO)**  
**PREREQUISITES: MTH 300, and a Programming Language**

Introduction to numerical techniques for problem solving involving the use of the computer. Topics include error analysis, solutions of one variable equations, solutions of linear and nonlinear systems of equations, iterative techniques in matrix algebra, and approximating eigenvalues.

**402 Three Credits**  
**NUMERICAL ANALYSIS II (SO)**  
**PREREQUISITE: MTH 401, MTH 372**

Continuation of MTH 401. Topics include polynomial interpolation and approximation, numerical differentiation and integration, approximation theory, and numerical approaches to ordinary and partial differential equations.

**431 Three Credits**  
**ABSTRACT ALGEBRA (SO)**  
**PREREQUISITE: MTH 331**

Continuation of MTH 331. Topics include a more advanced discussion of groups, rings, fields, homomorphism, isomorphism, and automorphism.

**441 Three Credits**  
**INTRODUCTION TO TOPOLOGY (SI)**  
**PREREQUISITE: MTH 331 or 373**

Introduction to the theory of point-sets including topological spaces, connectedness, compactness, continuity, and metric spaces.

**451 Three Credits**  
**STATISTICAL THEORY I (SI)**  
**PREREQUISITE: MTH 352**

Senior level course in applied statistics, designed especially for majors seeking an emphasis in statistics. Probability tools for statistics include description of discrete and absolutely continuous distributions, expected values, moments, moment generating functions, transformations of random variables, marginal and conditional distributions, independence, order statistics, multivariate distributions, concepts of random sample, derivation of many sampling distributions.

**454 Three Credits**  
**EXPERIMENTAL DESIGNS (SI)**  
**PREREQUISITE: MTH 351**

Topics to be covered include single factor experiments, residuals, randomized block designs, general factorials, blocking, regression models, unbalanced data, confounding blocks, and Taguchi experiments.

**457 Three Credits**  
**STATISTICAL THEORY II (SI)**  
**PREREQUISITE: MTH 352**

General framework for statistical inference. Point estimators: biased and unbiased, minimum variance unbiased, least mean square error, maximum likelihood and least squares, asymptotic properties. Interval estimators and tests of hypotheses: confidence intervals, power functions, Neyman-Pearson lemma, likelihood ratio tests, unbiasedness, efficiency and sufficiency are covered.

**473 Three Credits**  
**INTRODUCTION TO REAL ANALYSIS (FO)**  
**PREREQUISITE: MTH 251**

A rigorous introduction to the analysis of real-valued functions of a real variable. Provides a theoretical and axiomatic basis for calculus concepts taught in previous courses.

**474 Three Credits**  
**COMPLEX VARIABLES (SO)**  
**PREREQUISITE: MTH 251**

Treats the fundamentals of analytic function theory. Topics include algebra and geometry of the complex numbers, limits,

derivatives, Cauchy-Riemann equations, Cauchy's Theorem, Taylor and Laurent series, and contour integration.

**484 Three Credits**  
**TOPICS IN APPLIED MATHEMATICS (SO)**  
**PREREQUISITE: MTH 382**

A senior level course containing advanced topics in mathematical and scientific applications. Topics vary, but may include partial differential equations, Fourier analysis and boundary value problems, with selected applications in mathematical physics and fluid dynamics.

**491, 492 One to Twelve Credits**  
**INDEPENDENT STUDY (SI)**  
**PREREQUISITE: MTH 252 and as Specified by the Instructor**

Under the direction of an instructor, this course is designed to give mathematics majors the opportunity to explore a single topic in theoretical or applied mathematics in a one-on-one learning relationship with a faculty member. Special topics must be approved by the department head.

**496/497 Two Credits Each**  
**MATHEMATICS SEMINAR (FO) (SO)**  
**PREREQUISITE: Junior Status and Completion of Core Math Courses**

Culminating sequence designed to review and fortify knowledge of essential mathematics concepts and to synthesize mathematical knowledge and experience through the completion of an approved research to synthesize mathematical knowledge and experience through the completion of an approved research project. Results of the research are presented to peers and other interested members of the academic community. Course includes a comprehensive examination used to assess the objectives of the core mathematics courses.

**500 Three Credits**  
**TOPICS IN MATHEMATICS EDUCATION**  
**PREREQUISITE: Nine Semester Hours of College Math**

Study of selected topics in mathematics curriculum development and methodology. Topics vary from semester to semester.

**501 Three Credits**  
**MATHEMATICS FOR COMPUTING**  
**PREREQUISITE: MTH 184**

Introduction to the mathematics of computer science including mathematical logic, informal set theory, relations, functions, and networks.

**501A Three Credits**  
**GRAPHING CALCULATOR APPLICATIONS**  
**PREREQUISITE: MTH 184**

Introduction to the use of graphing calculators as an aid to problem solving in mathematics and science including methods for the use of calculators in classroom instruction.

**505 Three Credits**  
**TOPICS IN CONTEMPORARY MATHEMATICS**  
**PREREQUISITE: MTH 184**

Emphasis on the connections between mathematics and contemporary real-life problems. Selected topics are drawn from statistics, linear programming, geometry, discrete systems, and consumer applications.

**510 Three Credits**  
**DISCRETE MATHEMATICS**  
**PREREQUISITE: MTH 184**

Introduction to the basic concepts in discrete mathematics including computer science, graph theory, management science, and applied statistics. Course methodology includes the use of technology, cooperative learning, and manipulatives.

**511 Three Credits**  
**ADVANCED TOPICS IN GEOMETRY**  
**PREREQUISITE: MTH 311**

Study of selected topics from integral, combinatorial, and algebraic geometries including the geometry of numbers. Independent research project required.

**520 Three Credits**  
**MATHEMATICAL LOGIC AND SET THEORY**  
**PREREQUISITE: MTH 310 or 331**

Special emphasis on topics in sets and logic. Independent research project on an approved topic in sets and logic required.

**531 Three Credits**  
**TOPICS IN ABSTRACT ALGEBRA**  
**PREREQUISITE: MTH 331**

Special emphasis on ring and field theory. Independent research project required.

**540 Three Credits**  
**MATHEMATICAL MODELS AND APPLICATIONS**

**PREREQUISITE: MTH 384**

Study of the principles of mathematical modeling by way of selected science investigations. Independent research project incorporating mathematical modeling required.

## MEDICAL TECHNOLOGY - MDT

**306 Two Credits**  
**PHLEBOTOMY (E)**

Simulated laboratory and direct clinical experience in blood collection techniques including venipuncture, capillary sticks, special test procedures, and isolation. Emphasis on patient handling, nursery patients, and safety. (1 hr. lecture/2 hrs. laboratory)

**307 Two Credits**  
**SEROLOGY (SO)**

Study of "in-vitro" antigen-antibody reactions and the serological procedures used in the diagnosis of disease states. (1 hr. lecture/2 hrs. laboratory)

**308 Two Credits**  
**URINALYSIS/BODY FLUIDS (SO)**

Study of the theory and principles of chemical, physical, and microscopic clinical analysis of human urine and other body fluids. Emphasis on correlation of data obtained to diagnose disease states. (1 hr. lecture/2 hrs. laboratory)

**315 Four Credits**  
**CLINICAL HEMATOLOGY (FO)**

Introduction to the study of blood cells and blood-forming organ cells in the peripheral blood, bone marrows, and reticuloendothelial tissue; hematopoiesis; normal physiology and metabolism of blood cells; abnormal red and white cell morphology and associated pathological findings with emphasis on the classification of the anemia. (3 hrs. lecture/2 hrs. laboratory)

**325 Four Credits**  
**CLINICAL CHEMISTRY I (FO)**

Study of the theory and principle of biochemical procedures performed in the clinical laboratory to analyze various body fluid constituents (proteins, enzymes, carbohydrates, electrolytes, acid-base balance, blood gases, pH, and buffer systems) to aid in the diagnosis of diseases including the theory, operation, and maintenance of instruments used in the clinical laboratory; quality control and laboratory mathematics. (3 hrs. lecture/4 hrs. laboratory)

**373 Five Credits**  
**CLINICAL MICROBIOLOGY I (FO)**

Clinical application and interpretation of the principles of Medical Bacteriology, including historical and epidemiological significance, specimen collection, growth requirements, cultural characteristics, identification and pathogenicity. Laboratory exercises emphasize techniques, methods, and differential media used to isolate and identify pathogenic bacteria. (3 hrs. lecture/4 hrs. laboratory).

**395 Four Credits**  
**HEMATOLOGY/COAGULATION PRACTICUM (E)**

Rotation in the clinical hematology laboratory which incorporates instruction and examinations in routine hematology, special hematology, and coagulation under the supervision of a clinical specialist.

**396 Four Credits**  
**IMMUNOHEMATOLOGY PRACTICUM (E)**

Rotation in the clinical blood bank laboratory which incorporates instruction and examinations in routine blood banking and transfusion therapy under the supervision of a clinical.

**397 One Credit**  
**SEROLOGY PRACTICUM (E)**

Application of the immunological and serological procedures utilized in the clinical laboratory under the direction of a proficient technologist. Examinations required.

**410 Four Credits**  
**IMMUNOLOGY AND SEROLOGY (FO)**

Introduction to the study of antigens, antibody reactions, basic immune mechanisms, and their manifestations. Presentations on current immunological concepts and molecular diagnostic concepts and their application in the diagnosis, prevention, and treatment of infectious and noninfectious disease processes. The laboratory component is used to investigate "in vitro" antigen-antibody reactions and the serological procedures used in the diagnosis of disease states. (3-hrs. lecture/2 hrs. laboratory)

**425 Four Credits****CLINICAL CHEMISTRY II (SO)**  
**PREREQUISITE: MDT 325**

Study of the theory and principle of biochemical procedures performed in the clinical laboratory to analyze various body fluid constituents and organ functions (lipids, vitamins; NPN and renal functions; liver, heart, and skeletal muscle, thyroid, pancreas, and GI system; endocrinology; toxicology, and TDM) to aid in the diagnosis of diseases including the theory, operation, and maintenance of instruments used in the clinical laboratory, quality control, computer applications, and laboratory calculations. (3 hrs. lecture/4 hrs. laboratory)

**450 Four Credits****CLINICAL HEMATOLOGY II (SO)**  
**PREREQUISITE: MDT 315**

Study of interpretative hematology through the classification and pathogenesis of hematologic white blood cell disorders associated with leukemia and leukemoid reactions, plasma cell and plasma protein abnormalities, myeloproliferative disorders, and lymphoproliferative disorders. Hemostasis and coagulation disorders will be presented. Laboratory exercises to diagnose disorders of hemostasis included. (3 hrs. lecture/2 hrs. laboratory)

**455 Four Credits****IMMUNOHEMATOLOGY (SO)**  
**PREREQUISITE: MDT 410**

Clinical application of the principles of blood banking and transfusion therapy. Emphasis on the clinical manifestations of the blood group system, their antigens and antibodies; blood donation, blood processing component preparation, aphaeresis, exchange transfusions and transfusion reactions. Emphasis on quality control, FDA mandates, and blood bank policies for emergency transfusions. Simulated laboratory sessions introduce the general conditions and problems of the modern blood bank service. (3 hrs. lecture/4 hrs. laboratory)

**473 Four Credits****CLINICAL MICROBIOLOGY II (SO)**  
**PREREQUISITE: MDT 373**

Study of clinically significant fungi, parasites, and viruses. Emphasis on historical and epidemiological significance, specimen collection, growth requirements, cultural characteristics, identification, and pathogenicity. Laboratory sessions emphasize techniques, methods, and media used to isolate and identify these microorganisms. (3 hrs. lecture/2 hrs. laboratory)

**475 One Credit****MEDICAL TECHNOLOGY SEMINAR (SO)**

Preparation and presentation of a seminar on an approved topic in clinical laboratory science. Critiques will be done on the seminar. Comprehensive examination in all areas of medical technology required.

**480 Two Credits****CLINICAL LABORATORY ADMINISTRATION (FO)**

Overview of the medical technology profession including accreditation, licensure, certifying procedures; laboratory safety; principles of laboratory management and organization; educational methodologies; and professional responsibility and ethics.

**495 Four Credits****CLINICAL MICROBIOLOGY PRACTICUM (E)**

Rotation through the clinical microbiology laboratory, incorporating instruction and examinations in bacteriology, mycology, parasitology, and virology under the supervision of a clinical specialist.

**496 Four Credits****CLINICAL CHEMISTRY PRACTICUM (E)**

Rotation through the chemistry laboratory incorporating instruction and examinations in routine chemistry and special chemistry under the supervision of a clinical specialist.

**497 One Credit****URINALYSIS PRACTICUM (E)**

Rotation through the urinalysis laboratory incorporating instruction and examinations in urinalysis and other body fluids under the supervision of a clinical specialist. Qualitative and quantitative chemical and microscopic analysis of urine, gastrics, and feces for the detection of substances associated with pathology included.

## MILITARY SCIENCE - MSL

**101 Two Credits****FUNDAMENTALS OF LEADERSHIP/MANAGEMENT (FO)**

Study of the role of the U.S. Army, U.S. Army Reserve, and the U.S. Army National Guard including customs and

traditions of the service, basic land navigation, leadership, problem analysis, and decision-making skills.

**101D One Credit****BASIC DRILL AND CEREMONY MODULE (FO)****PREREQUISITE: MIS 101**

Practical application of drill and ceremony procedures, squad and platoon drill, land navigation training, practical exercises, first-aid training, and Army tactical communications equipment training. (One semester of 100 level Basic Leadership Laboratory required for continued advancement in ROTC.)

**102 Two Credits****FUNDAMENTALS OF LEADERSHIP/MANAGEMENT (SO)**

Study of military skills relating to the treatment and prevention of personal injury. Extensive concentration in the area of first aid and cardiopulmonary resuscitation (CPR).

**102D One Credit****BASIC DRILL AND CEREMONY MODULE (SO)****PREREQUISITE: MIS 101 or 102**

Practical application of drill and ceremony procedures, squad and platoon drill, land navigation training and practical exercises, first-aid training and Army tactical communications equipment training. (One semester of 100 level Basic Leadership Laboratory required for continued advancement in ROTC.)

**201 Two Credits****APPLIED LEADERSHIP/MANAGEMENT (FO)**

Study of the fundamentals of leadership and management including communication skills required in both the military and civilian environment. Emphasis on the utilization of subordinates, establishing a physical readiness program, inspection of personnel, equipment, and productivity.

**201D One Credit****BASIC DRILL AND CEREMONY MODULE (FO)****PREREQUISITE: MIS 201**

Practical application of drill and ceremony procedures, squad and platoon drill, land navigation training and practical exercises, first-aid training, and Army tactical communications equipment training. (One semester of 200 level Basic Leadership Laboratory required for continued advancement in ROTC.)

**202 Two Credits****APPLIED LEADERSHIP/MANAGEMENT (SO)**

Study of leadership management and productivity in a military environment. Emphasis on practical instruction in military skills to include land navigation, first aid, and related skills.

**202D One Credit****BASIC DRILL AND CEREMONY MODULE (SO)****PREREQUISITE: MIS 202**

Practical application of drill and ceremony procedures, squad and platoon drill, land navigation training and practical exercises, first-aid training, and Army tactical communications equipment training. (One semester of 200 level Basic Leadership Laboratory required for continued advancement in ROTC.)

**301 Three Credits****ADVANCED LEADERSHIP/MANAGEMENT (FO)****PREREQUISITES: MIS 101, 102, 201, and 202 or Placement Credit**

Study of land navigation, physical training, marksmanship, small-arms training, and squad and platoon tactics.

**301D One Credit****ADVANCED DRILL AND CEREMONY MODULE (FO)****PREREQUISITE: MIS 301**

Practical application of land navigation, physical training, marksmanship, small-arms training, and squad and platoon tactics. (Leadership Laboratory is required for continued advancement in ROTC.)

**302 Three Credits****ADVANCED LEADERSHIP/MANAGEMENT (SO)****PREREQUISITE: MIS 301**

Study of land navigation, physical training, marksmanship, small-arms training, and squad and platoon tactics.

**302D One Credit****ADVANCED DRILL AND CEREMONY MODULE (SO)****PREREQUISITE: MIS 302**

Practical application of land navigation, physical training, marksmanship, small-arms training, and squad and platoon tactics prepare cadets for Army ROTC Advanced Camp at Fort Lewis, WA. (Leadership Laboratory is required for continued advancement in ROTC.)

**313 Three Credits****ADVANCED CAMP (SS)**

Designed to evaluate a cadet's leadership ability and mastery of military skills. Successful completion qualifies a cadet for commissioning as an Army Officer.

**401 Three Credits****THEORY AND DYNAMICS OF MILITARY TEAM (FO)****PREREQUISITES: MIS 301, 302**

Study of the branches of the Army, drafting military correspondence, counseling of personnel on-job performance, and personal problems. Emphasis on planning meetings and conferences; planning, conducting, and evaluating personnel training; and writing information and decision papers.

**401D One Credit****ADVANCED DRILL AND CEREMONY MODULE (FO)****PREREQUISITE: MIS 401**

Practical application of the development of leadership skills to ensure the successful transition from Cadet to Second Lieutenant. Successful completion of 411D is required for commissioning.

**402 Three Credits****THEORY AND DYNAMICS OF MILITARY TEAM (SO)****PREREQUISITE: MIS 401**

Study of ethics and professionalism as it pertains to U.S. Army Personnel Management System, the principles and laws of war, military justice, intelligence and combat information, command and staff functions.

**402D One Credit****ADVANCED DRILL AND CEREMONY MODULE (SO)****PREREQUISITE: MIS 402**

Practical application of development of leadership skills to ensure the successful transition from Cadet to Second Lieutenant. (Successful completion of 412D is required for commissioning.)

**421 One Credit****INDEPENDENT STUDIES (EE)**

Military research and/or professional reading and military book review designed to develop a cadet's professional reading list and prepare for future military service.

## MUSIC - MUS

**MINOR COURSE (Open to non-majors by permission of Department only.)****100 (E) Zero Credit**

Preparatory course for students who do not qualify (on audition) for MUS 121, PRIVATE INSTRUCTION. Available in each of the following media: brasswind, percussion, strings, woodwind, organ, piano, voice, harpsichord. (Meets one-half hour weekly.)

**MAJOR COURSE (Open to non-majors by permission of Department only.)****101 (E) Zero Credit**

Preparatory course for students who do not qualify (on audition) for MUS 125, PRIVATE INSTRUCTION (2). Available in each of the following media: brasswind, organ, percussion, piano, strings, voice, woodwind. (Meets one hour per week.)

**110, 111 (E) One Credit Each**

Ensembles available, Instrumental: University Bands; University/Community Orchestra; Small Ensembles: brass jazz, percussion, saxophone, string, guitar, woodwind; Vocal: Concert Choir and Jazz Choir.

**Required for Music Majors according to curriculum pursued.) (Open to non-majors by audition. Each course carries One Credit Hour.**

**112, 113 One Credit Each****PERFORMANCE WORKSHOP (E)**

Hands-on experiences in performing individual works.

**121,122A One Credit Each****VOICE (E)****PREREQUISITE: Placement or MUS 100**

Emphasis on correct vocal production and exploration of a variety of representative vocal literature.

**121, 122B One Credit Each****PIANO (E)****PREREQUISITE: Placement or MUS 100**

Study of major scales; technical exercises and studies chosen from Schmitt, Hanon, Czerny-Liebling, Burgmuller, Op. 100 Oxford Piano Course for Older Beginners, or the equivalent; selected short compositions in various keys and rhythms; sight-reading.



<b>121, 122C ORGAN (E)</b> <b>PREREQUISITE: Placement or MUS 100</b> Plan of study to be followed will be similar to the foregoing outline, but the expected rate of completion will be about one-half that of the organ major. To receive credit for MUS 121 (Organ), for instance, the student would be required to complete approximately one-half of the material outlined for MUS 125 (Organ); completion of MUS 122 (Organ) would require the completion of all material outlined for MUS 125 (Organ).	<b>One Credit Each</b>
<b>121, 122D BRASS (E)</b> <b>PREREQUISITE: Placement or MUS 100</b> Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.	<b>One Credit Each</b>
<b>121, 122E WOODWIND (E)</b> <b>PREREQUISITE: Placement or MUS 100</b> Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.	<b>One Credit Each</b>
<b>121, 122F STRINGS (E)</b> <b>PREREQUISITE: Placement or MUS 100</b> Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.	<b>One Credit Each</b>
<b>121, 122G PERCUSSION (E)</b> <b>PREREQUISITE: Placement or MUS 100</b> Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.	<b>One Credit Each</b>
<b>123, 124 PERFORMANCE CLASS (E)</b> Seminar for Music Education students.	<b>One Credit Each</b>
<b>125, 126A VOICE (E)</b> <b>PREREQUISITE: Placement or MUS 101</b> Mastery of vocal exercises for the development of breath control, legato singing, tone placement, diaphragmatic support and agility; emphasis on building musicianship, compositions of moderate difficulty, English text.	<b>Two Credits Each</b>
<b>125, 126B PIANO (E)</b> <b>PREREQUISITE: Placement or MUS 101</b> Study of major scales (2-4 octaves), hands together, minor scales, hands separate; selected studies of Czerny, Hanon, Burgmuller, sonatinas of Clementi, Kuhlau, Beethoven; seventh arpeggio.	<b>Two Credits Each</b>
<b>125, 126C ORGAN (E)</b> <b>PREREQUISITE: Placement or MUS 101</b> Study of basic organ techniques as outlined in Gleason's "Methods of Organ Playing," or David Johnson's "Instruction Book for Beginning Organists"; pedal scales; hymn tunes; selected compositions of the level of Bach's "Eight Little Preludes and Fugues," the "Orgelbuchlein;" and pre-Bach compositions.	<b>Two Credits Each</b>
<b>125, 126D BRASS WINDS (E)</b> <b>PREREQUISITE: Placement or MUS 101</b> Study of the fundamentals of trumpet playing including: breath control, proper attack, formation of embouchure; elementary exercises from Arban, Complete Conservatory Method, Henna, 40 Progressive Etudes, Clark Technical Studies, and Coin, Lip flexibilities, Book I; major and minor scales and arpeggio, chromatic scale. Solo literature: Haydn, Trumpet Concert in Eb. 217d Movement; Kennan, Sonata for Trumpet and Piano; Contest Album; etc. Trombone studies: Slamag Studies, Rochut Melidous Studies, Remington Warm-ups; Arban's Complete Method, Solos on the level of Andante et Allegro by Baret; scales and technical exercises as listed for trumpet. Tuba studies: scales and technical exercises as listed for trumpet; Foundation of Tuba Playing by Bell; solos on the level of "Honor and Arms" by Handel. French Horn: Foundation of French Horn Playing by Farces; solos on the level of "Panis Angelicas" by Franck.	<b>Two Credits Each</b>
<b>125, 126E WOODWINDS (E)</b> <b>PREREQUISITE: Placement or MUS 101</b> Emphasis on basic problems of embouchure, fingering, breathing and tonguing facility, and control; selected studies from Klose, Method, Books II and III; Rose, 40 Studies; Perier,	<b>Two Credits Each</b>

Etudes de genres et interpretation; Cavallini Caprices; Recital Literature For Clarinet, Stubbins, Vols. I, II, and III; all major, pure minor, harmonic minor, and melodic minor scales, also chromatic; scales in 3rds; dominant seventh arpeggios.	
<b>125, 126F STRING (E)</b> <b>PREREQUISITE: Placement or MUS 101</b> Study of basic violin technique, left-hand position, and bow arm techniques; exercises in first position; two octave major scales in first position; exercises from Wohlfahrt Method, Opus 38, and Whistler's Introduction to the Positions, Book I; Rayser Etudes; Simandl Etudes; solo literature from Vivaldi, Bach, Corelli.	<b>Two Credits Each</b>
<b>125, 126G PERCUSSION (E)</b> <b>PREREQUISITE: Placement or MUS 101</b> Rudiment studies from the Gardner's Complete Method for Percussion; selected snare drum solos from the Haskell-Harr Collection; major scales on marimba with alternating sticks; study of other instruments of the percussion family.	<b>Two Credits Each</b>
<b>131, 132 MUSIC LITERATURE (FO) (SO)</b> <b>PREREQUISITE: Placement or MUS 140</b> Foundation in the materials and history to identify music styles and genres, major composers and their works, and familiarity with historical periods in music.	<b>Two Credits Each</b>
<b>140 MUSIC FUNDAMENTALS (E)</b> Study of the fundamentals of music and elementary theory. Does not count towards graduation. (For students who do not pass the Theory Placement Test)	<b>Three Credits Each</b>
<b>141, 142 SIGHT-SINGING AND EAR TRAINING (E)</b> Study of Theory I, II including sight-singing; melodic and harmonic dictation; scales, intervals and triads; and the analyzation of melodies.	<b>Two Credits Each</b>
<b>143 PROGRESSIVE HARMONY (SO)</b> Practice in writing and analyzing contemporary chord progressions with emphasis on keyboard skills, ear-training, and creative writing. Exploration of the use of chords of the ninth, eleventh, and thirteenth. Special emphasis on voice leading and chord sonorities.	<b>Three Credits</b>
<b>145, 146 HARMONY AND KEYBOARD (E)</b> Study of Theory I, II including part-writing, keyboard harmony, and harmonic analysis from triads and their inversions through non-harmonic tones, the dominant seventh chord and its inversions, secondary dominant, and other chords. (Meets three hours per week.)	<b>Two Credits</b>
<b>151 ELEMENTARY CONDUCTING (FO)</b> <b>PREREQUISITES: MUS 141, 145</b> Introduction to the art of conducting with emphasis on mastery of fundamental beat patterns.	<b>Two Credits</b>
<b>161 STRING CLASS (FO)</b> Development of the skills necessary for teaching instruments of the string family on the elementary and intermediate levels through practical experience. (Meets two hours per week.)	<b>One Credit</b>
<b>210, 211 ENSEMBLES (E)</b> Ensembles available, Instrumental: University Bands; University/Community Orchestra; Small Ensembles: brass jazz, percussion, saxophone, string, guitar, woodwind; Vocal: Concert Choir and Jazz Choir.	<b>One Credit Each</b>
<b>212, 213 PERFORMANCE WORKSHOP (E)</b> Hands-on experiences in performing individual works. (Meets one hour per week.)	<b>Two Credits Each</b>
<b>221, 222A VOICE (E)</b> Emphasis on correct vocal production and exploration of a variety of representative vocal literature.	<b>One Credit Each</b>
<b>*221, 222B PIANO (E)</b> Study of major and minor scales; arpeggios, technical exercises and studies continued; selected compositions; sight-reading, transposition, harmonization of simple melodies; folk and patriotic songs. Passing of the Piano Facility Examination required.	<b>One Credit Each</b>
<b>221, 222C</b>	<b>One Credit Each</b>

<b>ORGAN (E)</b> Plan of study to be followed will be similar to the foregoing outline, but the expected rate of completion will be about one-half that of the organ major. To receive credit for MUS 121 (Organ), for instance, the student would be required to complete approximately one-half of the material outlined for MUS 125 (Organ); completion of MUS 122 (Organ) would require the completion of all material outlined for MUS 125.	
<b>221, 222D BRASS (E)</b> Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.	<b>One Credit Each</b>
<b>221, 222E WOODWINDS (E)</b> Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.	<b>One Credit Each</b>
<b>221, 222F STRINGS (E)</b> Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.	<b>One Credit Each</b>
<b>221, 222G PERCUSSION (E)</b> Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.	<b>One Credit Each</b>
<b>223, 224 PERFORMANCE CLASS (E)</b> Once a week seminar for Music Education students.	<b>One Credit Each</b>
<b>225, 226A VOICE (E)</b> Continuation of technical development; repertoire including English songs (Purcell, Haydn, Handel, Carpenter, Quilter, Head); songs from the Anthology of Italian Song (Schirmer) or Classic Italian Song (Ditsun).	<b>Two Credits Each</b>
<b>225, 226B PIANO (E)</b> Study of major scales (4 octaves); minor scales (2-4 octaves), hands together, studies of the level of Czerny, Hanon, Heller, sonatinas or sonatas of Haydn, Mozart, or Beethoven; studies from Bach, Little Preludes and Fugues or Two-Part Inventions; selected compositions of other periods. Passing of the Piano Facility Examination required.	<b>Two Credits Each</b>
<b>225, 226C ORGAN (E)</b> Continued technical study; pedal scales through all minor scales; composition selected from shorter works by the forerunners of Bach, "Bach Preludes and Fugues" (G. Schirmer, ed., Vol. II), the sonatas of Mendelssohn, works by major composers such as Franz and Vierne and shorter contemporary works.	<b>Two Credits Each</b>
<b>225, 226D BRASS WINDS (E)</b> Further development of fundamentals; use of song literature to develop style and phrasing; continued work in Arban, Clark, Coin and Hering, 32 Progressive Etudes; Introduction to Transposition; whole tone scales; dominant seventh and diminished; selected compositions from various periods; easy sight-reading; harmonization using primary triads; melodic transposition.	<b>Two Credits Each</b>
<b>225, 226E WOODWINDS (E)</b> Emphasis on technical development, finger all tone control; Giampieri Caprices; Kroepsch Daily Studies, major scales in thirds.	<b>Two Credits Each</b>
<b>225, 226F STRINGS (E)</b> Bow and finger exercises; two-octave major and melodic minor scales up to and including third position; selected studies from Wohlfahrt's Foundation Studies for the Violin; solo literature using the first three positions.	<b>Two Credits Each</b>
<b>225, 226G PERCUSSION (E)</b> Continued study of rudiments; further study of other percussion instruments; major and minor scales in octaves on marimba; major and minor arpeggio and two-stick marimba solos. Selected snare drum solos from Haskell-Harr.	<b>Two Credits Each</b>
<b>234 AFRICAN-AMERICAN MUSIC (E)</b> Survey of the music created and performed by African-Americans as an ethnic group and as individuals from	<b>Three Credits</b>

the period of slavery to the present. Emphasis on the types and elements of African-American folk music including evidences and psychological factors that have impinged upon the development of African-American Music in the United States and other Americas.

**241/242** **TWO/ONE CREDIT**  
**SIGHT-SINGING AND EAR TRAINING (E)**  
**PREREQUISITE: MUS 142**  
 Study of aural non-diatonic exercises, advanced sight-singing, advanced melodic and harmonic dictation.

**245, 246** **TWO CREDITS EACH**  
**HARMONY AND KEYBOARD (E)**  
**PREREQUISITE: MUS 146**  
 More advanced keyboard harmony and part-writing, including modulation, the augmented sixth chords, and the Neapolitan 6th chord. Harmonic and formal analysis; writing for various combinations of instruments in the second semester. (Meets three hours per week.)

**247** **THREE CREDITS**  
**MUSIC IN THE TWENTIETH CENTURY (E)**  
 Study of the analytical and historical aspects of music written in the twentieth century. Emphasis on various techniques used in the composition of twentieth-century music, including the socio-historical influences relating to the outstanding composers of this time.

**260** **ONE CREDIT**  
**BAND INSTRUMENT SURVEY (SO)**  
 Introduction to the principles of playing musical instruments including the rudiments of tone production and performance techniques of woodwind, brasswind, and percussion instruments. (Meets two hours per week.)

**261** **ONE CREDIT**  
**PERCUSSION CLASS (SO)**  
 Development of the skills necessary for teaching instruments of the percussion family on the elementary and intermediate levels through practical experience. (Meets two hours per week.)

**265** **THREE CREDITS**  
**PRACTICAL APPLICATION IN ELECTRONIC MUSIC (FO)**  
 Introduction to various computer software used in electronic music including hands-on instruction on synthesizers. Emphasis on MIDI, sequencing and composition with computer software.

**271** **ONE CREDIT**  
**VOCAL DICTION (FO)**  
 Drill on English phonetics with application to singing. General survey of basic Italian, German, and French phonetics with emphasis on usages in music literature. (Meets two hours per week.)

**272** **ONE CREDIT**  
**VOICE CLASS (FO)**  
 Study of vocal techniques and survey of solo and choral literature designed to prepare students in training voices in the public schools. (Meets two hours per week.)

**273** **ONE CREDIT**  
**VOICE CLASS (SO)**  
 Study of vocal techniques and survey of solo and choral literature designed to prepare students in training voices in the public schools. (Meets two hours per week.)

**301** **THREE CREDITS**  
**MUSIC APPRECIATION (E)**  
 Survey of the major forms and styles of music with emphasis on developing awareness and understanding of representative music literature including the relation of music to other aspects of history and the culture of Western civilization.

**310, 311 (E)** **ONE CREDIT EACH**  
 Ensembles available. Instrumental: University Bands; University/Community Orchestra; Small Ensembles: brass jazz, percussion, saxophone, string, guitar, woodwind; Vocal: Concert Choir and Jazz Choir.

**312, 313** **ONE CREDIT EACH**  
**PERFORMANCE WORKSHOP (E)**  
 Hands-on experiences in performing individual works (Meets one hour per week)

**321, 322A** **ONE CREDIT EACH**  
**VOICE (E)**  
 Emphasis on correct vocal production and exploration of a variety of representative vocal literature.

**321, 322B** **ONE CREDIT EACH**  
**PIANO (E)**

Major and minor scales; arpeggios, technical exercises and studies continued; selected compositions; sight-reading, transposition, harmonization of simple melodies; folk and patriotic songs. Passing of the Piano Facility Examination required.

**321, 322C** **ONE CREDIT EACH**  
**ORGAN (E)**  
 Plan of study to be followed is similar to the foregoing outline, but the expected rate of completion is about one-half that of the organ major. To receive credit for MUS 121 (Organ), for instance, the student is required to complete approximately one-half of the material outlined for MUS 125 (Organ); completion of MUS 122 (Organ) requires the completion of all material outlined for MUS 125 (Organ).

**321, 322D** **ONE CREDIT EACH**  
**BRASS (E)**  
 Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

**321, 322E** **ONE CREDIT EACH**  
**WOODWINDS (E)**  
 Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

**321, 322F** **ONE CREDIT EACH**  
**STRINGS (E)**  
 Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

**321, 322G** **ONE CREDIT EACH**  
**PERCUSSION (E)**  
 Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

**323, 324** **ONE CREDIT EACH**  
**PERFORMANCE CLASS (E)**  
 Once a week seminar for Music Education students. (Meets one hour per week.)

**325, 326A** **TWO CREDITS EACH**  
**VOICE (E)**  
 Advanced study of greater technical difficulty; development of interpretation; repertory to include Italian songs of greater complexity; lieder of Schumann, Schubert, Frantz; French songs of Hahn, Godard, Debussy; contemporary songs in English, moderately difficult oratorio and operatic literature; vocal exercises of Panofka; Marchesi, Lamperti, and others.

**325, 326B** **TWO CREDITS EACH**  
**PIANO (E)**  
 Major and minor scales and arpeggios at increased speeds; scales in thirds; continued technical studies with exercises transposed to various keys; sight-reading of more difficult accomplishments; compositions of the level of Bach Two and Three-Part Inventions, French and English Suites, Well Tempered Clavier, sonatas of Haydn, Mozart, Beethoven; selected compositions from Romantic and contemporary periods.

**325, 326C** **TWO CREDITS EACH**  
**ORGAN (E)**  
 Technical study continued as needed; repertory selected from each of the major periods of organ composition with particular emphasis on proper styles in the following: pre-Bach, J.S. Bach, Romantic, contemporary European and American.

**325, 326D** **TWO CREDITS EACH**  
**BRASS WINDS (E)**  
 Emphasis on style, techniques, and range, continued work in Arabian, Clark, Coin; Brandt, Orchestra Atolls; Bousquet, 36 Celebrated Studies; transposition from Caffarelli, 100 Studi Melodici. Solo literature: Haydn, Trumpet Concerto in Eb; Hummel, Trumpet Concerto; Damase, Hummel, etc.

**325, 326E** **TWO CREDITS EACH**  
**WOODWINDS (E)**  
 Emphasis on performance repertoire; Recital Literature for clarinet, Stubbins, Vols. I, II, III, IV; one selection from the standard sonata repertory; all scales, major, minor and chromatic; diminished arpeggios.

**325, 326F** **TWO CREDITS EACH**  
**STRINGS (E)**  
 Studies from Kreutzer Etudes 1-23; extended scales and arpeggio; double stops, study of concertos such as Mozart and Villa, all sonatas such as Handel and Vivaldi.

**325, 326G** **TWO CREDITS EACH**  
**PERCUSSION (E)**

Study of all scales in thirds and sixths on marimba; selected three-stick marimba solos; timpani solos and difficult snare drum solos from Haskel-Harr.

**331, 332** **TWO CREDITS EACH**  
**MUSIC HISTORY (FO) (SO)**  
**PREREQUISITES: MUS 132, 242, 246**  
 Chronological survey of the development of music in the Western world from its beginnings through contemporary idioms including illustration and analysis of styles, forms, and techniques characteristic of main periods in the history of music. (Meets three hours per week)

**335** **THREE CREDITS**  
**JAZZ LITERATURE AND CRITICISM (SO)**  
 Introduction to basic performance in the field of jazz and its derivatives including popular music, tunes from musical stage shows, themes from motion pictures and television shows, as well as jazz classics. Emphasis on a critical analysis of the compositions and artists' performances. Knowledge of structural aspects of musical theory required.

**336** **THREE CREDITS**  
**JAZZ HISTORY (SO)**  
 In-depth study of jazz from the musical, historical, and social points of view, giving recognition to the artists responsible for innovations within each historical era.

**345** **THREE CREDITS**  
**FORM AND ANALYSIS (SO)**  
**PREREQUISITES: MUS 242, 246**  
 Study of the forms, structures, and styles of selected larger works of the eighteenth and nineteenth centuries, including analysis and writing of music of the twentieth century.

**346** **THREE CREDITS**  
**COMPOSITION (SO)**  
**PREREQUISITES: MUS 242, 246**  
 Presentation of techniques of original music compositions written under the guidance of the instructor. Emphasis on techniques of form, harmony, orchestration, and independence. (Meets three hours per week.)

**351** **TWO CREDITS**  
**ADVANCED CONDUCTING (SO)**  
**PREREQUISITES: MUS 151, 242, 246**  
 Study of conducting technique with particular attention to interpretation, technique of choral or instrumental conducting, tempo, diction, articulation, nuance, seating of choral or instrumental groups, testing voices, and auditioning. Conducting experience with laboratory group required.

**361** **ONE CREDIT**  
**WOODWIND CLASS (FO)**  
 Practical development of the skills necessary for teaching instruments of the woodwind family on the elementary and intermediate levels. (Meets two hours per week.)

**362** **ONE CREDIT**  
**BRASSWIND CLASS (SO)**  
 Practical development of the skills necessary for teaching instruments of the brasswind family on the elementary and intermediate levels. (Meets two hours per week.)

**365** **THREE CREDITS**  
**RECORDING AND MUSIC PRODUCTION (FO)**  
 Study of the operations of consoles, tape machines, microphones, and signal processing equipment including extensive in-studio experience in recording and mixing music as well as commercial quality production and editing.

**366** **THREE CREDITS**  
**MUSIC VIDEO (SO)**  
 Study of music video making through shooting with the camera and editing videotapes to recorded music. Extensive video editing suite experience resulting in the creation of a high quality production.

**383** **TWO CREDITS**  
**METHODS IN PUBLIC SCHOOL MUSIC (SO)**  
**PREREQUISITES: Completion of all Music courses in the Freshman and Sophomore Years; PSY 225, 230; Admission to Teacher Education.**  
 Study of the principles and procedures for conducting a music program in elementary school including organization, administration, and supervision of the music program; motivation and techniques of teaching; methods and materials. Special emphasis on multicultural content and appreciation; developing competencies in identifying and referring special students. (Meets three hours per week.)

**384** **TWO CREDITS**  
**METHODS IN PUBLIC SCHOOL MUSIC (SO)**  
 Study of the principles and procedures for conducting music program in the secondary school including curriculum organization and planning; instruction in general music and

specialized classes; organization and direction of instrumental and vocal ensembles. (Meets three hours per week.)

**410, 411 (E) One Credit Each**  
Ensembles available. Instrumental: University Bands; University/Community Orchestra; Small Ensembles: brass jazz, percussion, saxophone, string, guitar, woodwind; Vocal: Concert Choir and Jazz Choir.

**412 One Credit**  
**PERFORMANCE WORKSHOP (e)**  
Hands-on experiences in performing individual works (Meets one hour per week.)

**421, 422A (E) One Credit Each**  
Emphasis on correct vocal production and exploration of a variety of representative vocal literature.

**421, 422B One Credit Each**  
**PIANO (E)**  
Study of major and minor scales; arpeggios, technical exercises and studies continued; selected compositions; sight-reading, transposition, harmonization of simple melodies; folk and patriotic songs. Passing of the Piano Facility Examination required.

**421, 422C One Credit Each**  
**ORGAN (E)**  
Plan of study to be followed is similar to the foregoing outline, but the expected rate of completion is about one-half that of the organ major. To receive credit for MUS 121 (Organ), for instance, the student is required to complete approximately one-half of the material outlined for MUS 125 (Organ); completion of MUS 122 (Organ) requires the completion of all material outlined for MUS 125 (Organ).

**421, 422D One Credit Each**  
**BRASS (E)**  
Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

**421, 422E One Credit Each**  
**WOODWINDS (E)**  
Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

**421, 422F One Credit Each**  
**STRINGS (E)**  
Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

**421, 422G One Credit Each**  
**PERCUSSION (E)**  
Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

**423 One Credit Each**  
**PERFORMANCE CLASS**  
Seminar for performing on major instrument (or voice or keyboard).

**425, 426A Two Credits Each**  
**VOICE (E)**  
Demonstration of sufficient technical mastery to permit the performance of an extensive repertoire of various schools and nationalities including art songs and selections from oratorio or operatic literature, preparation of senior recital or senior examination.

**425, 426B Two Credits Each**  
**PIANO (E)**  
Study of all major and minor scales, arpeggios, and studies executed with good technical mastery at approximately 100 to 120 MM.-quarter note; advanced sight-reading; compositions representative of advanced literature from different periods; preparation for senior recital or senior examination.

**425, 426C Two Credits Each**  
**ORGAN (E)**  
Continuing study of style, ornamentation, organ construction, as applicable to music by the Pre-Bach masters; Baroque, Romantic, and contemporary composers; preparation for senior recital or senior examination.

**425, 426D Two Credits Each**  
**BRASS WINDS (E)**  
Continued emphasis on style, technique, range, transposition, exercises from Arban, Coin, Brandt, Caffarelli, and Charlier, 26 Etudes Transcendantes; orchestra literature from Bartold, Orchestral Excerpts, Vol. 1-5. Solo literature: Trumpet Tune;

Clark; Trumpet Voluntary; etc. Preparation for senior recital or senior examination.

**425, 426E Two Credits Each**  
**WOODWINDS (E)**  
Preparation of senior recital or senior examination; transportation at major 2nd up and minor 2nd down; major and pure minor scales in 3rds; tonic, dominant seventh, and diminished arpeggios; review of previous scales and other technical requirements; transposition at major 2nd up; finished performances of compositions from MUS 325, 326 and other compositions of different styles in preparation for senior recital, sight-reading of advanced literature.

**425, 426F Two Credits Each**  
**STRINGS (E)**  
Studies from Kreutzer Etudes 24-42; Schradieck's Technical Violin School; preparation for senior recital or senior examination.

**425, 426G Two Credits Each**  
**PERCUSSION (E)**  
Three- or four-stick marimba solos from Haskell-Harr, Marimba solos; timpani solos using three and four timpani; difficult snare drum solos; preparation of senior recital or senior jury examination.

**440 Three Credits**  
**LEGAL PROTECTION FOR MUSIC AND MUSICIANS (SO)**  
Survey of the field of music law including performance and recording royalties, contract, performing rights organization, musical copyright procedures, and publication.

**448 Three Credits**  
**ARRANGING (SO)**  
**PREREQUISITES:** MUS 242, 246 or Permission of the Instructor  
Scoring for small ensembles and for full band and orchestra involves practical application of the knowledge of transposing instruments as well as applied knowledge of the purpose and the range of each band and orchestral instrument.

**\*PIANO FACILITY EXAMINATION**  
All students majoring in Music must pass a Piano Facility Examination as a requirement for the bachelor's degree. This examination is a prerequisite to Directed Teaching. The Facility Examination tests the students' ability to use the piano as a tool within the framework of his/her professional application. The examination is scheduled at the end of each semester and during the summer session. The passing of this examination is required for successful completion of MUS 222 and MUS 226.

## NAVAL SCIENCE - NSC

**101 Two Credits**  
**NAVAL ORIENTATION**  
Introduction to sea power and the naval service, with emphasis on the mission, organization, regulations, and broad warfare components of the Navy, including an overview of officer and enlisted rank and rating structures, procurement and recruitment, training and education, promotion and advancement, and retirement policies.

**102 Three Credits**  
**SEAPOW AND MARITIME AFFAIRS**  
Study of the general sea power (including the merchant marine), the role of various warfare components of the Navy in supporting the Navy's mission, the implementation of sea power as an instrument of national policy, and a comparative study of U.S. and Soviet naval strategies.

**201 Three Credits**  
**NAVAL SHIP SYSTEMS I (ENGINEERING)**  
Introduction to the types, structure, and purpose of naval ships including ship compartmentation, propulsion systems, auxiliary power systems, interior communications, and ship control. Examination of elements of ship design to achieve safe operations and ship stability.

**202 Three Credits**  
**NAVAL SHIPS SYSTEMS II (WEAPONS)**  
Introduction to the theory and principles of weapons systems including 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 ordinance. Knowledge of algebra and trigonometry recommended.

**301, 302 Six Credits**  
**NAVIGATION AND NAVAL OPERATIONS I AND II**  
**PREREQUISITE:** Basic Course  
Comprehensive study of the theory, principles, and procedures of ship navigation, movements, and employment,

including the use of charts and publications, dead reckoning, piloting and electronic navigation techniques, voyage planning, and a survey of celestial navigation. Operations topics include communications, sonar-radar search, and screening theory. Tactical formations and dispositions, relative motion, maneuvering board, and tactical plots are analyzed for force effectiveness and unit; rules of the road, lights, signals, and navigational aids, including inertial systems, are also covered.

**310 Three Credits**  
**THE EVOLUTION OF WARFARE**  
Exploration of the forms of warfare employed by great leaders in history in order to formulate a sense of historical flow or to demonstrate alternative military actions, the impact of historical precedents on military thought and actions as practiced by the great leaders and military organizations. (Marine Corps Option Students Only).

**401 Three Credits**  
**LEADERSHIP AND MANAGEMENT**  
**PREREQUISITE:** Advanced Program Status  
Development of effective managerial and leadership competence through functional, behavioral, and situational approaches. Focus on the officer-manager as an organizational decision maker and leader.

**402 Three Credits**  
**LEADERSHIP AND ETHICS**  
**PREREQUISITE:** Advanced Program Status  
Capstone course in the NROTC curriculum builds and focuses on managerial and professional competencies developed during prior at-sea training and naval science courses.

**410 Three Credits**  
**AMPHIBIOUS WARFARE**  
Historical survey of the sea power with emphasis on the evolution of amphibious warfare in the twentieth century including the concept of amphibious warfare, its doctrinal origins, and its evolution and development as an element of national naval policy.

**111, 112, 211, 212, 311, 312, 411, 412 One Credit Each**  
**NAVAL LABORATORIES**  
**PREREQUISITE:** Acceptance into NROTC Program  
Study of basic military formations, drill movements, commands, customs, courtesies, honors, and inspections including lectures and discussions on a variety of subjects.

## NURSING – NUR

**144 Three Credits**  
**CNA–RN BRIDGE**  
Provides a transition course for the certified nurses assistant to the role of registered nurse by focusing on identified nursing content that is included in nursing theory and practice basic to preparation of the Associate Degree nurse.

**150, 150L Seven Credits**  
**FUNDAMENTAL CONCEPTS OF NURSING**  
Introduction to general concepts of health and nursing and their applicability to clients of all ages located on the wellness portion of the wellness-illness continuum. Focus on stages of development and maturation and the cultural influence on all age groups as a means of understanding how individuals meet their basic needs. Development of basic skills of nursing assistance to individuals striving to maintain relative states of health as they perform their activities of daily living. (4 hours lecture/9 hours laboratory)

**153 Three Credits**  
**FUNDAMENTAL PHARMACOLOGICAL SKILLS**  
Development of skills necessary for the safe preparation and administration of drugs to patients of all ages. Focus on the metric, apothecary, and household systems of measurements, calculation of drug dosages and practice in the administration of medications.

**160, 160L Seven Credits**  
**CLINICAL NURSING I**  
**PREREQUISITES:** NUR 150, 150L, 153;  
Introduction to the design and implementation of systems of nursing assistance for individuals experiencing potential and/or actual difficulties in maintaining physiological homeostasis. Development of plans of care based on comprehensive nursing assessment of individuals throughout the life span and implementation of nursing interventions designed to restore homeostatic equilibrium.

**170 Three Credits**  
**CARE OF THE INDIVIDUAL WITH EMERGENT AND CHRONIC DISORDERS**  
**PREREQUISITES:** NUR 150, 150L, 153, 160, 160L;

Focus on nursing assistance to individuals of all ages and their significant others experiencing self-care deficits associated with emergent and chronic disorders. Emphasis on the application of the nursing process for clients experiencing ongoing deviations from wellness.

**199 Three Credits**  
**LPN-RN BRIDGE**

Provides a transition course for the LPN to the RN. Focuses on identified nursing content that is included in nursing theory and practice basic to preparation of the Associate Degree Program.

**272 One Credit**  
**CONTEMPORARY TRENDS IN NURSING PRACTICE**  
**PREREQUISITES: All Freshman Level Courses and NUR 275**

Survey of nursing practice, its development, present trends and implications for the future. Orientation to the structure of organized nursing, employment opportunities, legal implications including licensure, current legislation regarding health-care, and nursing practice.

**275, 275L Nine Credits**  
**CLINICAL NURSING II**  
**PREREQUISITES: NUR 160, 160L; BIO 165, 166; PSY 210, 215 or 220**

Focus on nursing assistance to individuals of all ages with increasingly complex self-care deficits. Emphasis on the application of the nursing process to clients experiencing altered self-concept, altered body image, loss, and selected situations of chronicity.

**285, 285L Nine Credits**  
**CLINICAL NURSING III**  
**PREREQUISITES: NUR 275, 275L; BIO 163, 165, 166; PSY 210**

Focus on nursing assistance to individuals of all ages experiencing self-care deficits associated with major states of homeostatic disequilibrium. Emphasis on the application of the nursing process for clients experiencing complex multiple stressors.

**287 Two Credit**  
**SEMINAR**  
**PREREQUISITES: Completion of all Freshman Level Nursing Courses and NUR 275.**

Small group work in which common nursing problems are identified and solutions are devised. Must pass comprehensive examinations covering the entire nursing curriculum.

**321 Three Credits**  
**MULTICULTURAL/BIO ETHICS**

Study of the differences and similarities of culturally diverse people with regard to health and illness. Emphasis on clarification of personal values and an appreciation for the values that underpin health decisions made by the consumers of health care.

**362, 362L Four Credits**  
**ESSENTIALS OF NURSING: SKILLS AND RELATED CONCEPTS**

Study of cognitive and psychomotor skills related to basic nursing assistance of the well individual through the provision of health promotion strategies and care of the individual experiencing minor deviations from wellness resulting in self-care deficits which necessitate the application of beginning and intermediate nursing skills.

**415 Three Credits**  
**HEALTH ASSESSMENT**  
**PREREQUISITE: Open to all Registered Nurses; others by permission; and admission to the second-degree LPN-BSN tracks**

Development of expertise in obtaining nursing histories and performing physical assessments on clients throughout the life span experiencing varying levels of wellness. Opportunity for application and refinement of skills in the on-campus laboratory. (2 hrs. lecture/ 2 hrs. laboratory.)

**418 Three Credits**  
**CONCEPTUAL MODELS FOR NURSING**

Introduction to concepts underpinning the practice of professional nursing, including concepts of self-care, nursing process, systems theory, theories of family development and crisis.

**419, 419L Ten Credits**  
**PROVIDING NURSING SYSTEMS FOR INDIVIDUALS AND SMALL GROUPS**  
**PREREQUISITES: NUR 362, 362L, 415, 418**

Focus on designing systems of nursing assistance for clients experiencing significant life cycle events which have a major impact on the lifestyles and activities of the individual and

small groups, including child-bearing and child-rearing. Also, discussed is the client with selected alterations in psychological homeostasis.

**419A, 419C Four Credits**  
**PROVIDING NURSING SYSTEMS FOR INDIVIDUALS AND SMALL GROUPS DURING CHILDBEARING**

This course focuses on designing systems of nursing assistance for clients experiencing significant life cycle events which have major impact on lifestyles and activities of individuals and small groups. The specific life-cycle events include clients with selected alteration in physiologic homeostasis which promotes childbearing. Placement: Summer Session Junior Year

**419B, 419D Six Credits**  
**PROVIDING NURSING SYSTEMS FOR INDIVIDUALS AND SMALL GROUPS WITH MENTAL HEALTH AND CHILDBEARING ALTERATIONS**  
**PREREQUISITES: NUR 362, 362L, 415, 418, 419A, 419C**

This course focuses on designing systems of nursing assistance for clients experiencing significant life cycle events which have major impact on lifestyles and activities of individuals and small groups. These specific life-cycle events include clients with selected alteration in psychological homeostasis across the life span and physiological homeostasis of infants/children/adolescents. Placement: Fall Session Junior Year

**429, 429L Eight Credits**  
**PROVIDING NURSING SYSTEMS FOR INDIVIDUALS AND LARGE GROUPS**  
**PREREQUISITES: NUR 321, 362, 362L, 415, 418, 419, 419L, 444**

Focus on the design and implementation of systems of nursing assistance for individuals, families, and large groups in community and tertiary care settings, including clients throughout the life span and of diverse cultural backgrounds, experiencing self-care deficits with multiple etiologic factors and/or having a potential for multiple risk factors.

**429A, 429C Five Credits**  
**PROVIDING NURSING SYSTEMS FOR INDIVIDUALS AND LARGE GROUPS**  
**PREREQUISITES: NUR 362, 362L, 415, 418, 419A, 419C, 419B, 419D**

This course focuses on the design and implementation for systems of nursing assistance for individuals, families, and large groups in tertiary care settings. These clients, throughout the lifespan and of diverse cultural backgrounds, experience self-care deficits with multiple etiologic factors. Placement: (2 hour Lecture/9 hours laboratory) Spring Session Senior Year

**429B, 429D Three Credits**  
**PROVIDING NURSING SYSTEMS FOR INDIVIDUALS AND LARGE GROUPS**  
**PREREQUISITES: NUR 362, 362L, 415, 418, 419A, 419C, 419B, 419D, 429A, 429C**

Admission into the second-degree BSN Evening/Weekend Track.

This course focuses on the design and implementation for systems of nursing assistance for families, groups and communities, specifically high-risk populations throughout the life cycle. Students will use selected conceptual models in assessing, planning, implementing and evaluating nursing care and analyzing the management of care delivery by others in a variety of settings. Placement: Summer Session Senior Year

**435, 435L Eight Credits**  
**PROVIDING NURSING SYSTEMS FOR FAMILIES, GROUPS AND COMMUNITIES**  
**PREREQUISITES: NUR 321, 415, 418,**

Focus on the design and implementation of systems of nursing assistance for families, groups and communities, specifically high-risk populations, throughout the life cycle. Usage of selected conceptual models in assessing, planning, implementing and evaluating nursing care and analyzing the management of care delivery by others in a variety of settings.

**444 Three Credits**  
**PLANNING NURSING SYSTEMS FOR ADULTS**  
**PREREQUISITES: NUR 362, 362L, 321, 415, 418**

Design of systems nursing assistance for diverse groups of individuals and/or aggregates experiencing acute and/or chronic alterations in physiologic homeostasis, which has a major and significant impact upon the life-style and activities of the individual/aggregate. Specific attention to analyzing self-care deficits and planning appropriate nursing assistance based on this analysis.

**461 Three Credits**  
**NURSING RESEARCH DIMENSIONS**

Study of research skills used in making inferences relating to nursing practice, understanding the research process, critiquing research articles, utilizing research findings in enhancing, and identifying researchable questions.

**462 Three Credits**  
**NURSING LEADERSHIP AND MANAGEMENT**

Examination of theory and concepts concerning the leadership process, organizational structure, and management strategies. Analyze complex health-care delivery systems, coordinate efforts for consumer health and nursing service, act as colleagues with other health professionals, evaluate the quality and direction of health and nursing, and encourage change as appropriate.

**470 Three Credits**  
**SEMINAR ON PROFESSIONAL DEVELOPMENT**

Attention to forces which affect health-care delivery and the impact of these changes on the scope of nursing practice. Emphasis on professional accountability, political involvement, and strategies for enhancing the image of the profession with other health professions and the lay public.

**475 Three Credits**  
**NURSING PROCESS SEMINAR**

This capstone course promotes integration of knowledge and concepts obtained in previous nursing, science and general education courses into the design and implementation of nursing systems for groups of individuals and/or aggregates throughout the life span with complex deviations from wellness, including an intensive preceptored clinical experience. Successful completion of the course is dependent upon passing a comprehensive examination.

**485 Three Credits**  
**Contemporary Topics in Nursing and Health Care**

Study of a variety of interest areas of nursing, including selected topics for independent study, complete research projects, special nursing topics courses and community nursing experiences.

## OPTICAL ENGINEERING - OEN

**200 Three Credits**  
**GEOMETRIC AND INSTRUMENTATION OPTICS I (EE)**  
**PREREQUISITES: PHY251; MTH251**  
**COREQUISITE: OEN 200L**

Study of basic principles of geometric optics, refraction and reflection, including Gaussian optics of axially symmetrical systems and other related topics, as well as simple optical instruments, such as magnifying lenses, compound microscopes, refracting telescope and other simple optical systems.

**200L One Credit**  
**GEOMETRIC AND INSTRUMENTATION OPTICS LABORATORY (EE)**  
**PREREQUISITE: PHY251L**  
**COREQUISITE: OEN 200**

Study of intermediate geometric optics using state-of-the-art laboratory exercises and equipment to do fundamental experiments using lasers, fiber optic systems and diodes.

**201 Three Credits**  
**GEOMETRIC AND INSTRUMENTATION OPTICS II (EE)**  
**COREQUISITES: OEN 200**

Detailed discussion of topics such as interference and interferometers, Fresnel and Fraunhofer diffraction, spectroscopic instrumentation, electro-optic effects and elements of quantum and non-linear behavior.

**201L One Credit**  
**GEOMETRIC AND INSTRUMENTATION OPTICS II LABORATORY (EE)**  
**COREQUISITE: OEN 201**

Study of intermediate geometric optics using state-of-the-art laboratory exercises and equipment to do fundamental experiments.

**320 Three Credits**  
**OPTICAL SYSTEMS ANALYSIS (SO)**  
**PREREQUISITES: OEN 201**

Development of tools and techniques for engineering of optical systems. Study of specifications, system design and analysis, tradeoffs and optimization, manufacturing.

**340 Three Credits**  
**LASERS AND PHOTONICS (EE)**  
**PREREQUISITE: OEN 320**  
**COREQUISITE: OEN 340L**

Discussion of condensed matter physics, including issues in solid state physics, laser physics, laser light, laser components and systems and measurements.

**340L** **LASER AND PHOTONICS LABORATORY (EE)** **One Credit**  
**COREQUISITE:** OEN 340

Study of laser and photonics in a laboratory setting.

**360** **INTRODUCTION TO OPTICAL MATERIAL (FO)** **Three Credits**  
**PREREQUISITES:** EEN 257; OEN 201

Introduction to the optical properties of III-V and IV-VI semi-conducting compounds that are used in optical systems.

**380** **INTRODUCTION TO QUANTUM MECHANICS (FO)** **Three Credits**  
**PREREQUISITES:** EEN 257; PHY 251; PHY 320  
 Introduction to the uncertainty principle, the differences between quantum and classical systems, Schrodinger's Equation, free particle wave functions, square wave and simple harmonic oscillator potentials, the hydrogen atom, and other general quantum concepts.

**460** **OPTICAL COMMUNICATIONS I (FO)** **Three Credits**  
**PREREQUISITES:** OEN 340, 360  
**COREQUISITE:** OEN 460L

Study of optical communication components and applications to communications systems, including fiber attenuation and dispersion, laser modulation, photodetection and noise and coherent communications.

**460L** **OPTICAL COMMUNICATIONS I LABORATORY (FO)** **One Credit**  
**COREQUISITE:** OEN 460

Study of optical communication components and applications to communications systems in a laboratory setting.

**461** **OPTICAL COMMUNICATIONS II (SO)** **Three Credits**  
**PREREQUISITE:** OEN 460  
 Further discussion of coherent communications.

**490** **SENIOR SEMINAR** **One Credit**  
**PREREQUISITE:** Senior Status and Permission of the Instructor  
 Discussion of related topics with invited speakers.

**498** **SENIOR PROJECT (Stage I) (FO)** **Three Credits**  
**PREREQUISITE:** Senior Status and Permission of the Instructor  
 Topics selected by the student and his/her research advisors.

**499** **SENIOR PROJECT II (STAGE II) (SO)** **Three Credits**  
**PREREQUISITE:** OEN 498 and Permission of the Instructor  
 Continuation of selected topic resulting in a paper of publishable quality in a reversed research journal.

## PHYSICAL EDUCATION - PED

**100** **FUNDAMENTALS OF FITNESS FOR LIFE FO (SO)** **One Credit**  
 Development of knowledge and appreciation for total fitness as an individualized lifetime goal, including the improvement in current levels of fitness and the development of positive life-styles.

**101,** **MODIFIED PHYSICAL EDUCATION (FO) (SO)** **One Credit Each**  
 Individualized programs of instruction for students with handicapping conditions. Medical excuse required.

**107** **AEROBICS (FO) (SO)** **One Credit**  
 Introduction to the understanding of basic body alignment and the use of proper posture. Participation in a choreographed exercise regimen geared towards safely raising the heart rate to burn calories.

**109** **WATER AEROBICS (SO)** **One Credit**  
 Development of elements of physical fitness, including muscle tone, strength, flexibility, and cardiovascular endurance through participation in full rhythmic and aerobic exercises done in water. Emphasis on the role of nutrition, weight control, stress management, and consumerism as basic

components of a health fitness lifestyle. No swimming skills required.

**133** **BEGINNING SWIMMING (FO) (SO)** **One Credit**  
 Introduction to levels I, II and III of the American Red Cross Learn to Swim Program, including water safety, water acclimation, reaching assists, breath control, prone floating and analysis of movement.

**134** **ADVANCED BEGINNING SWIMMING (FO) (SO)** **One Credit**  
**PREREQUISITE:** Ability to swim 25 yards of front crawl stroke, back crawl stroke and experience in deep water or permission of instructor.  
 Study of levels IV and V of the American Red Cross Learn to Swim Program with review of Levels I, II, and III, including water safety, improvement in prone swimming (front crawl), back swimming (back crawl and elementary backstroke), introduction to side stroke, analysis of movements and scientific flaws.

**151, 152** **RHYTHM AND FOLK DANCES (FO) (SO)** **One Credit Each**  
 Orientation to fundamental skills for basic rhythms, folk and square dance.

**158, 159** **FUNDAMENTALS OF PHYSICAL EDUCATION (FO) (SO)** **One Credit Each**  
 Orientation to selected seasonal team sports (soccer, speed ball hockey, basketball, volleyball, softball, track and field). Emphasis on the development of psychomotor skills, physical fitness, and knowledge and appreciation of the selected activities. Above average proficiency required.

**179** **FIRST AID (FO) (SO)** **Two Credits**  
 Study of the proper techniques and procedures for administering first aid and CPR.

**200** **BEGINNING FITNESS THROUGH WEIGHT TRAINING (FO) (SO)** **Two Credits**  
 Near individualized personal fitness program utilizing the following apparatus and equipment: the variable resistance machines, Olympic free weights, and the pull-up trainer.

**204** **TENNIS I (FO) (SO)** **One Credit**  
 Development of basic skills in the game of tennis, including techniques, rules, and strategies.

**206** **TENNIS II (FO) (SO)** **One Credit**  
 Development of performance skills at the beginning level, the knowledge of rules, terminology, equipment, and safety techniques in tennis.

**209** **BOWLING (FO) (SO)** **One Credit**  
 Development of skills and appreciation for bowling, both as a fitness and leisure time activity.

**210** **GOLF (SO) (SO)** **One Credit**  
 Development of performance skills at the beginning level, the knowledge of rules, terminology, equipment, and safety techniques in golf.

**235** **INTERMEDIATE SWIMMING (FO) (SO)** **One Credit**  
**PREREQUISITE:** PED 134; ability to swim 25 yards of the front crawl, back crawl, elementary back stroke.  
 Study of levels V, VI, VII of the American Red Cross Learn to Swim Program with a review of Levels I through IV including endurance swimming and fitness activities. Preparatory course for Lifeguard Training and Water Safety Instructor.

**251, 252** **MODERN DANCE I & II (FO) (SO)** **One Credit Each**  
 Orientation to techniques and principles of modern dance.

**253** **GYMNASTICS (SO)** **One Credit**  
 Development of performance skills and the knowledge of rules, terminology, equipment, safety techniques, and the learning procedures for apparatus work.

**254** **JAZZ DANCE (SO)** **One Credit**  
 Introduction to basic and intermediate dance techniques. Exploration of the cultural and historical contributions of jazz dance, including social dances, period dances, and rhythmic dances that engage syncopate and accented rhythmic phrases.

**261, 262** **One Credit Each**

**TEAM SPORTS (FO) (SO)** **PREREQUISITES:** PED 158, 159  
 Development of performance skills at an intermediate level: knowledge of rules, terminology, equipment, safety techniques in the sports of flag/touch football, soccer/speedball, volleyball, and team handball; and assessment of students' fitness.

**271, 272** **INDIVIDUAL SPORTS (FO) (SO)** **One Credit Each**  
**PREREQUISITES:** PED 158, 159  
 Development of skills in archery, golf, tennis, badminton, bowling, racquetball, pickle ball; fitness testing.

**280** **INTRODUCTION TO PHYSICAL EDUCATION** **Three Credits**  
 Introduction to historical, philosophical, educational, psychological, biological, sociological, and career emphasis related to the field of physical education.

**287, 287L** **HUMAN ANATOMY (FO)** **Four Credits**  
**PREREQUISITES:** BIO 100, 100L  
 Introduction to the structure and function of the organ systems of the human body.

**288, 288L (SO)** **HUMAN PHYSIOLOGY** **Four Credits**  
**PREREQUISITES:** PED 287, 287L  
 Introduction to the function, regulation, and the integration of organs and organ systems of the human body.

**300** **ADVANCED FITNESS THROUGH WEIGHT TRAINING (SO)** **Two Credits**  
**PREREQUISITE:** PED 200  
 Advanced experiences while working with the pull-up trainers, Olympic free weights, and the variable resistance machines.

**325** **LIFEGUARD TRAINING (SO)** **Three Credits**  
 Study of the American Red Cross Senior Life Saving course outline. Satisfactory completion leads to Red Cross certification.

**335** **TECHNIQUES FOR TEACHING SKILLS IN SPORTS (SO)** **Three Credits**  
 Study of skills used to identify development sequences for learning skills and teaching techniques in individual/dual and team sports that can be used to develop effective lesson and unit plans.

**350** **METHODS OF TEACHING PHYSICAL EDUCATION IN ELEMENTARY SCHOOLS (FO) (SO)** **Three Credits**  
**PREREQUISITES:** PED158, 159, 253, 261, 262, 271, 272, 356, 365, 477; Students must pass PRAXIS I.  
 Study of methods and techniques of presenting physical education to elementary school children.

**356** **KINESIOLOGY (SO)** **Three Credits**  
**PREREQUISITES:** PED 287, 287L, 288, and 288L  
 Study of the basic anatomical kinesiology and mechanical principles of movement as they apply to the human body, including anatomical details and neuromuscular function of the body, equilibrium and motion, and how these principles are influenced by various environmental mediums.

**357** **ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION PROGRAMS (FO)** **Three Credits**  
**PREREQUISITES:** PED 158, 159, 253, 261, 262, 271, 272, 350, 356, 365, 477  
 Study of the structure and operations of a physical education program based on the philosophies, aims, objectives, policies, and procedures that provide maximum contributions to the total school program.

**\*358** **METHODS AND MATERIALS OF TEACHING PHYSICAL EDUCATION IN SECONDARY SCHOOL (SO)** **Three Credits**  
**PREREQUISITES:** PED 158, 159, 253, 261, 262, 271, 272, 350, 356, 365, 477; Students must pass Praxis I.  
 Study of methods and procedures for designing unit plans and lesson plans for physical education theory and activity classes in a secondary physical education program.

**361** **ATHLETIC COACHING AND OFFICIATING (FO)** **One Credit**  
**PREREQUISITES:** PED 158, 159, 261, 262  
 Study of the fundamentals, techniques, and strategies of coaching and officiating team and individual sports.

**362** **PREREQUISITES:** PED 158, 159, 261, 262, and 361 **One Credit**

Opportunities to acquire knowledge of various sports, rules, and regulations (baseball or softball, basketball, track and field, soccer, football, volleyball, field hockey, tennis, wrestling, and swimming) and the development of beginner level skills in officiating individual and team sports.

**365** **Three Credits**  
**ADAPTED PHYSICAL EDUCATION (FO) (SO)**  
**PREREQUISITES: PED 287, 288 or equivalents**  
 Study of principles and practices of Physical Education with emphasis on the nature, needs, and abilities of challenged individuals. Activities modified to meet the needs of these individuals.

**369** **Three Credits**  
**MEASUREMENT AND EVALUATION (FO) (SO)**  
**PREREQUISITE: General Math Course**  
 Analysis of test and measurements commonly used in physical education. Introduction to basic statistical procedures for test selection, construction, and administration.

**441** **Three Credits**  
**DRIVER EDUCATION: FOUNDATIONS OF TRAFFIC SAFETY (FO)**  
**PREREQUISITE: PED 440**  
 Study of methods used for teaching driver education in public schools.

**444** **Three Credits**  
**PRINCIPLES AND METHODS OF CLASSROOM AND IN-CAR INSTRUCTION (SO)**  
 Hands-on experiences in the understanding and application of principles and methodologies for teaching evasive maneuvers of driving. Practicum includes both simulation and in-car experiences.

**447** **Three Credits**  
**PHYSIOLOGICAL BASIS OF EXERCISE**  
 Study of physiological responses, adjustments, and adaptations to the acute stress of exercise and physical activity, and the chronic stress of physical training.

**450** **Three Credits**  
**MOTOR LEARNING (FO)**  
 Study of theories of motor learning and their respective relevance to planning of programs for school age children and a theoretical basis for developing effective strategies for teaching motor skills.

**451** **Three Credits**  
**PSYCHOLOGICAL ASPECTS OF SPORTS (SO)**  
 Study of both the psychological factors that influence participation in sports and exercises and the psychological effects derived from that participation including motivation, personality, aggression, violence, and leadership through group dynamics of exercise and well-being.

**477** **Three Credits**  
**PHYSIOLOGY OF MUSCLE EXERCISE (FO) (SO)**  
**PREREQUISITES: PED 287, 287L, 288, 288L, and 356**  
 Study of physiological responses, adjustments, and adaptations to the acute stress of exercise, physical activity, and the chronic stress of physical training.

**480** **Three Credits**  
**PRINCIPLES OF PHYSICAL EDUCATION (FO)**  
**PREREQUISITE: PED 280**  
 Study of the scope and significance of physical education through the development of a basic philosophy of education. Discussion and reflection on issues relevant to contemporary physical education, including multiculturalism, aggression in sports, women in sports, and physical activity promotion for girls and minority populations. Emphasis on resume building and interviewing skills for careers in physical education.

**499** **Three Credits**  
**DIRECTED TEACHING SEMINAR (FO) (SO)**  
**PREREQUISITES: Completion of ALL Coursework**  
 Forum for continuous self-analysis and evaluation of the experiences encountered in student teaching, including special readings, activities, and discussions from professional literature.

\*Enrollment requires completion of requirements for admission to teacher education.

## PHYSICS - PHY

**100** **Three Credits**  
**PHYSICAL SCIENCE (EE)**  
**PREREQUISITES: ENG 101, MTH 103**  
 Survey of the unity of the physical sciences (astronomy, physics, chemistry, and geology) rather than arbitrary divisions. Emphasis on knowledge of selected facts,

principles and methods of science, and the place of science in our modern world.

**100L** **One Credit**  
**PHYSICAL SCIENCE LABORATOR**  
**COREQUISITE: PHY 100**  
 Laboratory exercises designed to illustrate the scientific method, specific experimental techniques and examples of the knowledge gained by scientists working in the various disciplines. Laboratory experiments are closely coordinated with topics covered in PHY 100.

**150, 151** **Three Credits Each**  
**GENERAL PHYSICS (SI)**  
**PREREQUISITE: MTH 151 or equivalent**  
**COREQUISITE: PHY 150L, 151L**  
 Study of the fundamentals of mechanics, heat, light, sound, electricity, and magnetism with emphasis on principles and their application in industry. (1 hour lecture and demonstration/2 hours recitation and quiz)

**150L, 151L** **One Credit Each**  
**GENERAL PHYSICS LABORATORY (SI)**  
**PREREQUISITES: MTH 153 or Permission of Instructor**  
**COREQUISITE: PHY 150, 151**  
 Emphasis on observational techniques and observations.

**152, 153** **Three Credits Each**  
**GENERAL PHYSICS (E)**  
**PREREQUISITE: MTH 153**  
**COREQUISITE: PHY 152L, 153L**  
 Study of mechanics, heat, and sound during the first semester, electricity, magnetism, light, and modern physics during the second semester. (2 hours lecture/1 hour recitation)

**152L, 153L** **One Credit Each**  
**GENERAL PHYSICS LABORATORY (EE)**  
**PREREQUISITE: PHY 152, 153**  
 Opportunity to investigate the laws and principles of physics and to make conclusions based on observations and analyses.

**154** **Three Credits**  
**PHYSICS OF MUSIC (SO)**  
**PREREQUISITE: MTH 153**  
 Team-taught study of mechanical vibrations, sound, acoustics of halls and musical instruments, electroacoustics, electronic music, musical scales, waveform analysis, recording and reproduction of musical sounds. (1 hour lecture, 2 hours experiment, project recitation)

**160, 161** **Four Credits Each**  
**UNIVERSITY PHYSICS (FO)**  
**COREQUISITE: MTH 184, PHY 160L, PHY 161L**  
 Study of mechanics, heat, sound, light, electricity and magnetism, and modern physics. Emphasis on analytical methods with application of calculus and problem solving.

**160L, 161L** **One Credit Each**  
**UNIVERSITY PHYSICS LABORATORY (FO)**  
**COREQUISITES: PHY 250, 251**  
 Opportunity to investigate the laws and principles of physics and to make conclusions based on observations and analysis.

**241** **One Credit**  
**SEMINAR (SO)**  
**PREREQUISITES: PHY 160, 161**  
 Presentation and discussion of current topics in all areas of physics. Required of sophomore physics majors.

**260** **Four Credits**  
**UNIVERSITY PHYSICS III (FO)**  
**PREREQUISITES: PHY 160, 161**  
 Study of basic concepts and principles oscillatory motion, mechanical waves, electro-magnetic waves, geometrical optics, physical optics, and special relativity. Calculus and vector methods used throughout the course.

**297** **Three Credits**  
**INTRODUCTION TO RESEARCH**  
**PREREQUISITE: Sophomore Status and Permission of Instructor**  
 Acquisition of fundamental skills in experiment design, data analysis, and other research skills. Undergraduate research supervised by a faculty member.

**320** **Three Credits**  
**WAVES (SI)**  
**PREREQUISITES: PHY 160, 161; MTH 252**  
**COREQUISITE: MTH 372**  
 In-depth study of mechanical and electromagnetic wave phenomena, including traveling waves, standing waves, reflection and transmission, interference, diffraction, polarization, and wave packets. Applications of calculus and

differential equations to physical phenomena are emphasized.

**345** **Three Credits**  
**Mathematical Methods for Physical Sciences I (SO)**  
**PREREQUISITES: PHY 160, 161; MTH 252**  
 Introduction to advanced mathematical topics, including complex numbers, vectors, matrices, series, and differential equations with special emphasis on applications to physics.

**445** **Three Credits**  
**MATHEMATICAL METHODS FOR PHYSICAL SCIENCES II**  
**PREREQUISITES: PHY 345; MTH 372**  
 Study of advanced mathematical topics, including Fourier series, calculus of variations, series solutions of differential equations, and partial differential equation, with special emphasis on applications to physics topics.

**350** **Three Credits**  
**MODERN PHYSICS (SO)**  
**PREREQUISITES: PHY 160, 161; MTH 251**  
**COREQUISITE: MTH 252**  
 Introduction to modern physics including relativity, atomic structure, nuclear structure, radioactivity, nuclear reactions, and elementary particles.

**351** **Two Credits**  
**EXPERIMENTAL CONCEPTS IN MODERN PHYSICS (SO)**  
**PREREQUISITES: PHY 350; MTH 252**  
 Emphasis on experimental techniques, including G.M. counters, flow counters, absorption of radiation, half-life, range of alpha particles spectroscopy, selected experiments in neutron physics, and selected experiments in radiochemistry. (One hour lecture, three hours laboratory per week).

**353** **Three Credits**  
**INTRODUCTION TO SOLID STATE PHYSICS**  
**PREREQUISITES: MTH 252; PHY 350**  
 Introduction to the theory of solids, including introductory wave mechanics; electronic energy levels in atoms and molecules; wave mechanics of the hydrogen atom; motion of electron in a periodic lattice; structure, elastic properties, and dynamic properties of crystals; motion of electrons in solids; energy bands and the band theory of solids; theory and application of semiconductors, Hall effect, p-n junctions; semiconducting rectifiers and semiconducting devices, and electrical and magnetic properties of solid superconductors.

**356** **Three Credits**  
**HEAT AND THERMODYNAMICS (SO)**  
**PREREQUISITES: PHY 250, 251; MTH 252**  
**COREQUISITE: MTH 372**  
 Examination of thermal equilibrium and the concepts of temperature, thermodynamic systems, work, heat, and the Laws of Thermodynamics, thermal properties of materials, heat engines, reversibility, Carnot's theorem, enthalpy, and the Helmholtz and Gibbs functions. Applications are made to surfaces, pure substances, magnetic materials in a magnetic field, flow processes, chemical reactions, mixture of gases and fuel cells, steam engines and turbines.

**365, 366** **Three Credits Each**  
**PHYSICAL MECHANICS I, II (FO)**  
**PREREQUISITES: PHY 320, 350; MTH 372**  
 Study of elements of vector analysis, laws of dynamics and statics of particles, cables and rigid bodies, central forces and celestial mechanics, theory of vibrations, and special relativity. Survey of mechanics comparable to the classical Newtonian approach, utilizing topics such as generalized coordinates.

**375** **Three Credits**  
**ELECTRICITY AND MAGNETISM I (FO)**  
**PREREQUISITES: PHY 350; MTH 252, 372**  
 Introduction to classical electromagnetic theory. Topics include elements of vector analysis, static and time-dependent electric and magnetic fields, electric and magnetic properties of matter, electromagnetic induction, and Maxwell's equations.

**380** **Three Credits**  
**QUANTUM MECHANICS I(FO)**  
**PREREQUISITES: PHY 320, 350; MTH 372**  
 Introduction to Schrodinger's equation and topics, including free particle wave functions, square well and simple harmonic oscillator potentials, the hydrogen atom, and identical particles.

**397** **Three Credits**  
**INTRODUCTION TO RESEARCH**  
**PREREQUISITE: Junior Status and Permission of Instructor**  
 Development in the skills of research, including preparations, fabrication, design and execution of experiments, data analysis. Undergraduate research supervised by a faculty member.

**399 Two Credits****ADVANCED LABORATORY (SO)**  
**PREREQUISITES: PHY 350, 351, 365**

Introduction to techniques of advanced experimentation and to development of research and in technical writing skills. Experiments in mechanics, heat, electronics, optical spectroscopy, and atomic and nuclear physics.

**468 Three Credits****OPTICS (FO)**  
**PREREQUISITES: PHY 350; MTH 252**

Focus on topics from geometrical and physical optics, including circular and elliptical polarization, thick-lens equations, Fresnel and Fraunhofer diffraction, interference and dispersion of electromagnetic waves, fiber optics, and optical pumping.

**475 Three Credits****ELECTRICITY AND MAGNETISM II**  
**PREREQUISITE: PHY 375**

Advanced treatment of classical electromagnetic theory, including electrostatic and magnetostatic fields, electric and magnetic properties of matter, Maxwell's equations and time-dependent electric and magnetic fields, electromagnetic waves, and radiation.

**480 Three Credits****QUANTUM MECHANICS II (SO)**  
**PREREQUISITE: PHY 380**

Advanced treatment of Schrodinger equation and topics, including free particle wave functions, square well and simple harmonic oscillator potentials, the hydrogen atom, identical particles, perturbation theory, and collision theory. Emphasis on applications to nuclei, atoms, molecules, and solids.

**490 Three Credits****PHYSICS DEMONSTRATIONS**  
**PREREQUISITE: Permission of Instructor**

Presentation and discussion of classical and modern demonstration experiments used in the teaching of general and intermediate physics. Exercises in mechanics, heat, optics, electricity, magnetism, and modern physics.

**491 Three Credits****EXPERIMENTAL CONCEPTS IN PHYSICS**  
**PREREQUISITE: Permission of Instructor**

Introduction to the techniques of intermediate and advanced experimentation and skills in technical writing. Experiments in mechanics, heat, optics, electricity, magnetism, and modern physics.

**495 One Credit****PHYSICS EDUCATION RESEARCH**  
**PREREQUISITE: Senior Status and Permission of Instructor**

Supervised investigation of a physics education research problem, including planning, execution, and analysis. Report preparation, oral presentation, and completion of senior assessment examination required.

**498 One Credit****SENIOR PROJECT I (FO)**  
**PREREQUISITE: Senior Status and Permission of Instructor**

Preparation and presentation of Senior Project proposal planned with a faculty mentor. Oral report describing the plan is required. A faculty review panel offers suggestions for revisions where needed.

**499 Two Credits****SENIOR PROJECT II (SO)**  
**PREREQUISITE: PHY 399**

Supervised investigation of a research problem, including planning, execution, and analysis. Preparation of report, oral presentation, and completion of senior assessment examination required.

**590 Three Credits****PHYSICS DEMONSTRATIONS**  
**PREREQUISITE: Permission of Instructor**

Presentation and discussion of classical and modern demonstration experiments used in the teaching of general and intermediate physics. Exercises in mechanics, heat, optics, electricity, magnetism, and modern physics.

**591 Three Credits****EXPERIMENTAL CONCEPTS IN PHYSICS**  
**PREREQUISITE: Permission of Instructor**

Introduction to the techniques of intermediate and advanced experimentation and skills in technical writing. Experiments in mechanics, heat, optics, electricity, magnetism, and modern physics.

**POLITICAL SCIENCE - POS****100 Three Credits****AMERICAN NATIONAL GOVERNMENT (E)**

Coordinated study of the development of American government including the historical development of the United States and the organization and functions of government.

**180 Three Credits****INTRODUCTION TO POLITICAL SCIENCE (EE)**

Introduction to the basic concepts and fundamental substantive divisions of the field of political science.

**230 Three Credits****AMERICAN PUBLIC POLICY (EE)**

Introduction to the basic theories and concepts of policy analysis, with particular emphasis on the policy-making process at the federal level; examines such selected policy issues as welfare, health insurance, and housing; and seeks to assess the impact of policy decisions on various groups in American society.

**231 Three Credits****AMERICAN STATE AND LOCAL GOVERNMENT (E)**

Intensive study of the legal and political processes of the subsystems of state and local government. Detailed emphasis on federal-state, interstate, and state-local relations.

**250 Three Credits****INTRODUCTION TO PUBLIC ADMINISTRATION (EE)**  
**PREREQUISITE: POS 230**

Focus on the organization, responsibility, personnel management, fiscal processes, functions and problems of public administration.

**310 Three Credits****METROPOLITAN AND REGIONAL DEVELOPMENT**

Analysis of the impact of metropolitan growth on municipalities, with focus on revenues, public services and political empowerment.

**315 Three Credits****AFRICAN-AMERICAN POLITICS (EE)**

Systematic examination of the African-American in the American political system, covering various periods of the African-American political experience.

**320 Three Credits****THE AMERICAN PARTY SYSTEM (SI)**

Study of the nature, function, evolution, and organization of political parties in the United States. Special emphasis on the relation of pressure groups to the party system.

**323 Three Credits Each****COMPARATIVE GOVERNMENT (SO)**

Study of the organization, structure, and politics of the major European governments. Special emphasis on the political systems of Great Britain, France, West Germany, and the Soviet Union.

**325, 326 Three Credits****AMERICAN FOREIGN POLICY**

Study of the background, responsibilities, and consequences of United States foreign policy from 1787 to present. Special emphasis on the diplomatic origins of the major wars, the peacemaking efforts which followed each war, and assessment of the role of diplomacy and the diplomat in a democratic society.

**332 Three Credits****INTRODUCTION TO JURISPRUDENCE (E)**

Intensive examination of the schools and theories of jurisprudence, historical development of legal systems, legal reasoning, and juristic processes.

**333 Three Credits****METHODS OF RESEARCH (EE)**

Focus on the problems of methodology in empirical research, emphasizing hypothesis testing and the quantification of data. Provides experience in the use of public documents, aggregate data, and survey data in research designs and policy evaluation.

**334 Three Credits****AMERICAN POLITICAL IDEAS**

Critical analysis of American political ideas in the area of law, government, and the enduring political problems of liberty and authority, oligarchy and democracy, from Puritanism to the present. Emphasis on Hamilton, Jefferson, Marshall, Jackson, Calhoun, Lincoln, Thoreau, Bellamy, Henry George, Wilson, Hoover, Roosevelt, Holmes, Dewey, and others.

**337, 338 Three Credits Each****AMERICAN CONSTITUTIONAL LAW (FO) (SO)****PREREQUISITE: Must be Taken in Sequence**

Study of the basic principles of the American constitutional system. Emphasis on the judicial interpretation and application of these principles in construing the powers of the government and the rights of persons. Examines the historical background of major federal court decisions.

**340 Three Credits****URBAN BELIEF SYSTEMS**

Examination of beliefs, values, and attitudes relevant to political processes in urban areas relative to development, change, and distribution.

**345 Three Credits****STATISTICS AND DATA PROCESSING FOR POLITICAL ANALYSIS (EE)**

Examination of parametric and nonparametric statistics in terms of data description and hypothesis testing in political research and policy analysis, including the capabilities of the computer in data storage, management, and statistical analysis applied to research problems.

**350 Three Credits****ORGANIZATION THEORY AND BEHAVIOR (SO)**

Examination of the structure and functioning of public organizations, with emphasis on theories of administrative hierarchies and evaluation of bureaucracy.

**360 Three Credits****INTERNATIONAL RELATIONS (FO)**

Focus on man as a part of nature, acting in his political environment over time. Examines relationships among nations.

**422 Three Credits****PUBLIC OPINION AND PROPAGANDA**

Intensive study of the nature, measurement, and function of public opinion. Special emphasis on the problem of symbol manipulation and its relation to the formation of public policy in a democratic society.

**428 Three Credits****VIRGINIA GOVERNMENT AND POLITICS (SI)**

Basic study of Virginia's constitution, political parties, election laws, legislative, executive, and judicial functions, economic services, social services and social welfare.

**430 Three Credits****POLITICAL THEORY (FO)**

Study of the political theories of Plato, Aristotle, selected Greek, Roman, and medieval writers to Machiavelli. Critical analyses of enduring political problems.

**431 Three Credits****MODERN THEORY (SO)**

Critical analyses of enduring political problems in the writings of European theorists from Machiavelli to the present.

**435 Three Credits****MUNICIPAL GOVERNMENT (SI)**

Study of the organizations, functions, problems, and approaches in the solution of problems of urban areas.

**442 Three Credits****INTERNATIONAL LAW (SO)**

Intensive study of the substantive content of the law of international relations. Special emphasis on problems of enforcement.

**443 Three Credits****ADMINISTRATIVE LAW (EE)**

Introduction to the American legal system using a case study approach.

**451 Three Credits****PUBLIC PERSONNEL ADMINISTRATION (EE)**

Focus on the recruitment, examination, placement, remuneration, morale, retirement, training, and other issues that impact the public service.

**461 Three Credits****INTERNATIONAL ORGANIZATION**

Study of the organization, functions, structure, and problems of the United Nations and other international organizations.

**462 Three Credits****THE NEAR (MIDDLE) EAST IN INTERNATIONAL AFFAIRS**

Survey of the Near East, focusing on its relation to the struggle for international ascendancy of the Western powers. Emphasis on the nineteenth and early twentieth centuries, as well as the contemporary period.

**463 Three Credits****POLITICS OF AFRICAN NATIONS (FO)**

Examination of the resolution of conflict and promotion of survival of the independent nations south of the Sahara through comparison of political ideologies and through case studies of individual nations. Analysis of traditional African systems and the various colonial systems of the new governments.

**466 One-Three Credits**  
**READING IN GOVERNMENT AND PROBLEMS IN GOVERNMENT (E)**

**PREREQUISITE:** Permission of Department for non-Political Science Majors

Independent reading and analytical reporting on works outside the immediate scope of formal courses. Special emphasis on depth of perspective.

**467 Three Credits**  
**INTRODUCTION TO NON-WESTERN POLITICS**

Introduction to the general patterns of politics in the areas of Latin America, the Middle East, the Far East, and areas of Africa north of the Sahara. Analysis of political instability, political groups and ideologies, organizations of political authority, and the problems of political integration.

**468 Three Credits**  
**A SURVEY OF CONTEMPORARY GOVERNMENTS OF ASIA (SI)**

Survey of the governments and the politics of the countries of Asia with attention to geographic, economic, and cultural conditions out of which present governments evolve.

**493 Nine Credits**  
**PUBLIC ADMINISTRATION INTERNSHIP (E)**

**PREREQUISITE:** For Senior Public Administration Majors Only

Internship in a private or environmental agency. Specific requirements available in Department office.

**494 Six Credits**  
**PRE-LAW INTERNSHIP (E)**

Internship offers an invaluable opportunity to gain knowledge, skills and exposure to the legal profession. 180 clock hours in an approved placement required.

**499 Four Credits**  
**SENIOR PROJECT (SI)**

Selected research topic includes collection, analysis, and presentation of an organized statement of data. Research topic chosen must be approved by instructor.

**510 Three Credits**  
**POLITICS AND ECONOMICS OF AGING**

Examination of the implications for the political system of increasing numbers of older people in the population of the United States. Surveys, researches, and analyzes national, state, and local legislation. Legislative and economic impact research conducted.

**570 Three Credits**  
**SEMINAR IN LAW AND POLITICS**

Focus on contemporary problems in legal and governmental spheres. Preparation of research paper required.

## PSYCHOLOGY - PSY

**210 Three Credits**  
**INTRODUCTION TO PSYCHOLOGY (E)**

Overview of generally accepted factors that shape behavior. Survey of developmental and social processes, as well as learning and motivation and their relationship to normal and abnormal behavior.

**211 Three Credits**  
**BASIC PRINCIPLES OF PSYCHOLOGY (EE)**

**PREREQUISITE:** PSY 210  
 Examination of selected topical areas as a continued introduction to psychology.

**220 Three Credits**  
**CHILD PSYCHOLOGY (FO)**

Study of the physical growth and the psychological development of the child, emphasis on the significance of physical, social, cognitive, personality, and language development in the early years.

**225 Three Credits**  
**ADOLESCENT PSYCHOLOGY (FO)**

Study of adolescents' physical growth, psychological development, and behavior. Emphasis on the major determinants of adolescent development and behavior, the theoretical approaches, concepts, principles, and research findings about adolescence and their applications in real-life situations.

**228 Three Credits**  
**DEVELOPMENTAL PSYCHOLOGY (EE)**

**PREREQUISITE:** PSY 210

Comprehensive study of the psychological development of the individual, including linguistic, social, personality, and cognitive aspects of development from conception through adulthood.

**230 Three Credits**  
**EDUCATIONAL PSYCHOLOGY (FO)**

Introduction to the psychological principles relevant to the processes of education and the theory of educational institutions.

**245 Three Credits**  
**MENTAL HYGIENE (SI)**

**PREREQUISITE:** PSY 210

Study of the cause and development of both normal and abnormal personalities. Emphasis on the multidimensional nature of mental health (i.e., cultural, psychological, biological) and factors involved in the prevention and treatment of mental disorders.

**250 Three Credits**  
**SOCIAL PSYCHOLOGY (SO)**

**PREREQUISITE:** PSY 210

Study of the influence of social factors on behavior of individuals and small groups. Emphasis on interpersonal behavior. Exploration of theories concerning social interaction, social influence, aggression, prejudice and attitude change, and socialization.

**270 (370) Three Credits**  
**PSYCHOLOGICAL STATISTICS (EE)**

**PREREQUISITES:** MTH 103; PSY 210, 211

Study of the basic principles and techniques employed in the fields of descriptive and inferential statistics, as well as the fundamental laws of probability. Emphasis on techniques of summarizing and standardizing data; correlation and regression; sampling distribution; analysis of variance; hypotheses testing using parametric as well as nonparametric tests, and probability.

**280 Three Credits**  
**ABNORMAL PSYCHOLOGY (EE)**

**PREREQUISITE:** PSY 210

Introduction to the various descriptions and classifications of psychopathology and theories of the origin of mental disorders, including different approaches to the treatment of abnormal behavior.

**311 Three Credits**  
**EDUCATIONAL TESTS AND MEASUREMENTS (SI)**

**PREREQUISITE:** Consent of Instructor

Study of the general field of tests and measurements, including the application of statistics. Introduction to factors involved in the selection and administration of group tests of achievement, aptitude, mental ability, and personality.

**312 Three Credits**  
**BEHAVIORAL ANALYSIS (FO)**

**PREREQUISITE:** PSY 210

Opportunities to develop skills in the systematic observation and analysis of behavior in an academic situation through classroom observation and videotaped school behavior. Emphasis on behavioral task analysis of academic behavior.

**313 Three Credits**  
**BEHAVIORAL MANAGEMENT STRATEGIES IN EDUCATIONAL SETTINGS (SI)**

**PREREQUISITES:** PSY 210, 312

Study of learning and behavioral programs for students in educational settings. Emphasis on social learning theory including contingency contracting, token economic, modeling, and similar techniques.

**322 Three Credits**  
**PSYCHOLOGY OF EXCEPTIONAL CHILDREN (SO)**

**PREREQUISITE:** Consent of Instructor

Study of the unique and typically abnormal psycho-social characteristics and stresses encountered by the handicapped child. Analysis of a child's behavior responses and personality development, ranging from normal adjustment mechanisms to the most serious pathological conditions.

**331 Three Credits**  
**PERSONALITY (FO)**

**PREREQUISITE:** PSY 210

Introduction to the nature of personality, its development, and its functioning. Examination of classical and contemporary theories and data.

**340 Three Credits**  
**PSYCHOLOGY OF THE AFRICAN-AMERICAN (EE)**

**PREREQUISITE:** PSY 210

Examination of the critical effects and derivations of the African-American slavery and contemporary American racist social experiences on the mental developments and current functioning of the African-American person.

**360 Four Credits**  
**EXPERIMENTAL PSYCHOLOGY (EE)**

**PREREQUISITES:** PSY 210, 211, 270

Introduction to the application of experimental methods and techniques to psychological problems. Emphasis on experimental design, data collection and analysis, and fundamentals of report writing. (3 hours lecture/ 1 hour lab.)

**380 Three Credits**  
**PHYSIOLOGICAL PSYCHOLOGY (FO)**

**PREREQUISITES:** BIO 100; CHM 100; PHY 100, 360

Study of the physiological processes underlying behavior, with emphasis on the role that the major systems of the body, in particular the nervous system, play in behavior.

**381 One-Three Credits**  
**TOPICS IN PSYCHOLOGY (SS)**

**PREREQUISITE:** Consent of Instructor

Supervised projects selected to suit the needs of the individual student.

**390 Three Credits**  
**FUNDAMENTALS OF LEARNING (SO)**

**PREREQUISITE:** Consent of Instructor

Survey of basic processes and principles of learning, as well as theoretical accounts of these processes. Examination of research findings from both human and animal subjects.

**391 One-Three Credits**  
**READING IN PSYCHOLOGY (SI)**

**PREREQUISITE:** Consent of Instructor

Directed reading and supervised independent study of contemporary issues. Comprehensive coverage of a subject from assigned materials required.

**392 One Credit**  
**SEMINAR IN COMMUNITY RESOURCES (SI)**

**PREREQUISITE:** Consent of Practicum Supervisor

Orientation to the activity of the mental health facility. Provides representatives from agencies to guest lecturers and field trips to various kinds of agencies in the area. Readings and discussions are formats for the seminar.

**397 (497) One-Three Credits**  
**RESEARCH IN PSYCHOLOGY (SI)**

**PREREQUISITE:** Consent of Instructor

Supervised independent research projects aimed at answering empirical questions. Also, intimately involves the student in the conceptualization, design, implementation, and analysis and interpretation of empirical questions and research findings.

**410 Three Credits**  
**PSYCHOLOGY OF ADJUSTMENT (SO)**

**PREREQUISITES:** PSY 210, 280

Study of the multiple aspects of adjustment and mental health, emphasizing the promotion of good adjustment and the prevention and treatment of maladjustment. Analysis of reactions to stress and effective means of coping with stress, emotional control, and positive striving.

**420 Three Credits**  
**INTRODUCTION TO PSYCHOLOGICAL TESTING (EE)**

**PREREQUISITES:** PSY 210, 211, 270

Introduction to the theory and practice of psychological testing. Examination of intelligence, perceptual-motor, and personality tests, along with their use in clinical, educational, and occupational testing settings.

**430 Three Credits**  
**CLINICAL METHODS IN PSYCHOLOGY (SO)**

**PREREQUISITES:** PSY 210, 280, 331

Examination of clinical procedures in psychological evaluation and treatment. Introduction to the uses of psychological tests in making clinical judgments, and an overview of the various theoretical treatment methods such as individual, group, family, and community approaches.

**440 Three Credits**  
**DRUGS AND BEHAVIOR (SO)**

**PREREQUISITES:** PSY 280, 380, or Consent of Instructor

Survey of major principles and mechanisms of drug action including basic pharmacological principles, basic nervous system function and neurochemistry, behavioral analysis techniques, non-pharmacological variables (e.g., psychosocial, cultural), and a survey of specific classes of psychoactive drugs.

**450 Three Credits**  
**SYSTEMS IN PSYCHOLOGY (SI)**



Critical survey of systems and theories in psychology, along with a broad overview of the historical and contemporary issues relevant to the study of psychology.

**460** **PERCEPTION** **Three Credits**  
**PREREQUISITE: Consent of Instructor**  
 Intensive examination of empirical findings, experimental techniques, and theories related to the study of sensory and perceptual processes.

**480** **MOTIVATION AND EMOTION (SI)** **Three Credits**  
**PREREQUISITE: Consent of Instructor**  
 Study of processes which activate behavior and provide major emphasis on the physiological origin of needs, drives, motives, and emotions. Exploration of critical behavioral data from human and animal studies, along with historical and contemporary theories.

**492** **PSYCHOLOGY SEMINAR (EE)** **Three Credits**  
**PREREQUISITE: Senior Standing**  
 Presentation of recent experimental and theoretical advances in selected areas of psychology. Class projects prepared and presented in a seminar format.

**495, 496** **PRACTICUM IN PSYCHOLOGY (EE) (SI)** **Three to Six Credits Each**  
**PREREQUISITE: Senior Standing and Consent of Instructor**  
 Supervised field experience in an applied setting, i.e., a mental health agency or other appropriate institution.

**573** **THE PSYCHOLOGY OF ETHNIC MINORITIES** **Three Credits**  
 Survey of the social science definitions of race and ethnicity, including the mental health consequences of racism on the lives of American minorities, with particular emphasis on the African American.

## RELIGION - REL

**110** **INTRODUCTION TO THE BIBLE: OLD TESTAMENT (FS)** **Three Credits**  
 Examination of the writings, culture and personalities in the ancient literature known as the Old Testament. Survey of both literary and historical perspectives and the possible structures, functions, and meanings of this literature for its original community.

**111** **INTRODUCTION TO THE BIBLE: NEW TESTAMENT (SO)** **Three Credits**  
 Survey of the ancient literature of the New Testament section of the Bible. Examination of historical, cultural and theological issues. Exploration of literary and historical perspectives given the possible structures, functions, and meanings of the literature for its original community.

**115** **HISTORY/THEOLOGY OF PROTESTANTISM (SI)** **Three Credits**  
 Examination of selected religious movements and problems in the historical development of Protestantism as a cultural, philosophical and religious influence. Key personalities and time periods reviewed.

**200** **MAJOR WORLD RELIGIONS (SS)** **Three Credits**  
 Survey of major world religions and selected topics involving theological and cultural developments. Investigation of basic religious structures and the relationship of religious phenomena to their cultural context. The historical, theological and modern impact of the religions studied highlighted.

**210** **MAJOR WORLD RELIGIONS (SI)** **Three Credits**  
 Intensive research pertaining to a selected area of religious thought and expression, either contemporary or ancient.

**220** **SYNOPTIC GOSPELS (SI)** **Three Credits**  
 Examination of the critically designated documents of the ancient New Testament literature. The historical and modern developments pertaining to dissemination, interpretations and cultural influences reviewed. Emphasis on structures, personalities, and institutional usage within the varied cultural contexts.

**310** **LIFE AND LITERATURE OF PAUL (SS)** **Three Credits**  
 Examination of the life and literature associated with the Saul/Paul of ancient biblical and cultural history and the political, religious and social influences which emerged as

relevant in modern society. Research and theological findings reviewed.

**320** **HISTORY AND THEOLOGY OF JUDAISM (SI)** **Three Credits**  
 Study in the religious dimension of the Judaic culture, with emphasis on historical, social, and theological perspectives.

**330** **HISTORY AND THEOLOGY OF THE BLACK CHURCH (SI)** **Three Credits**  
 Analysis of African-American religious thought through critical study of the historical legacy of events, personalities and institutions which helped shape black religion from Africa to the present.

**340** **SOCIETY AND CHRISTIAN ETHICS (SI)** **Three Credits**  
 Examination of ethical issues confronting society and the Christian responses. Consideration given to philosophical and theological perspectives.

**410** **PSYCHOLOGY OF RELIGION (SI)** **Three Credits**  
 Introduction to selected themes, issues and problems in the interaction of religion and psychology. Differing points of view considered.

**420** **SOCIOLOGY OF RELIGION (SI)** **Three Credits**  
 Study of the treatment of religion as a social institution. Examination of the influence of society on religion and the influence of religious ideas and organizations on other social institutions and cultures.

**440** **BASIC ISSUES OF RELIGIOUS THOUGHT(SI)** **Three Credits**  
 Cross-disciplinary analysis of modes of human awareness through religious meaning and expression. Critical study of writings of selected figures who have helped shape identified religious movements and events across the ages.

**450** **CONTEMPORARY ESCHATOLOGY (SI)** **Three Credits**  
 Perennial themes in ancient and modern cultures which take into account individual, societal and cosmic appearances and views of reality, both present and futuristic.

## EARTH SCIENCE - SCI

**100** **LIFE IN THE UNIVERSE** **Three Credits**  
 Introduction to science, exploring the basic concepts of chemistry and physics, the chemistry of life, the nature of the stars, planets and their atmospheres, the evolution of climate, biological evolution, and the technology of space travel and the workings of radio telescopes.

**381** **SCIENCE FOR TEACHERS (EE)** **Three Credits**  
**PREREQUISITE: PHY 100 or BIO 100**  
 Extension of the fundamental concepts of the biological and physical sciences, special emphasis on content material in the physical sciences. Also provides special consideration of selecting methods and applications appropriate to the program of elementary school science. Emphasis on meteorology, astronomy, geology, physics, and biology.

## SECONDARY EDUCATION AND LEADERSHIP - SED

**201** **THE AMERICAN SCHOOLS AND THE TEACHING PROFESSION (E)** **Three Credits**  
**PREREQUISITE: Sophomore Standing**  
 Orientation to contemporary elementary and secondary schools in America with on-site experiences in diverse classrooms in local schools. Emphasis on issues raised in current reform movements and on the changing nature of the teaching profession.

**210** **KEYBOARDING III (E)** **Three Credits**  
**PREREQUISITE: ASM 110 or advanced placement**  
 Continued keyboarding/formatting/editing skills for a variety of office simulations, applying production skills for simulation, and making decisions about execution of jobs/simulations without direct supervision. Speed and accuracy are stressed.

**233** **SEMINAR IN ASSESSMENT AND EVALUATION (E)** **Two Credits**  
 Study and application of theories, methods, and materials used in acquiring critical thinking skills. Emphasis on developing critical thinking in specific contexts such as the

Core Battery Tests of the National Teacher Examinations. and assessing and evaluating thinking skills and knowledge.

**324** **BUSINESS SYSTEMS AND PROCEDURES (E)** **Three Credits**  
**PREREQUISITE: ASM 110, 244 or department permission**  
 Analysis of the components of an office information system. Emphasis on managerial techniques and strategies for controlling effective and efficient information flow to analyze, design and implement proposed systems. Includes multimedia presentations, integration, and use of business microcomputer software.

**\*380** **FOUNDATIONS OF SECONDARY SCHOOL METHODS AND MANAGEMENT OF INSTRUCTION (FO) (SO)** **Three Credits**  
**PREREQUISITE: Successful completion of all lower level courses**  
 Study of concepts related to teaching and learning, classroom management, student-teacher relationships, presentation of subject matter, and testing and evaluation.

**\*384** **TEACHING METHODS OF MATHEMATICS/SCIENCE/TECHNOLOGY IN SECONDARY SCHOOLS (SO)** **Three Credits**  
**PREREQUISITES: SED 380 and a completion of junior level mathematics/sciences courses.**  
**COREQUISITES: MTH 310, MTH 311**  
 Study of methods designed to assist prospective secondary teachers in defining and implementing the knowledge and skills necessary to effectively perform in the classroom.

**\*390** **SECONDARY SOCIAL STUDIES METHODS** **Three Credits**  
 Development of tools and strategies necessary to achieve high standards of learning for teaching social studies courses in secondary classrooms.

**UED 405/UED 505** **READING IN THE CONTENT AREAS** **Three Credits**  
**PREREQUISITES: SED 380 and a completion of junior level mathematics/sciences courses.**  
**COREQUISITES: MTH 310, MTH 311**  
 Comprehensive study of how to strategically use reading as a tool for learning in the content areas by incorporating a balanced approach, a realistic and practical usage of reading and methodological issues, theory, research, and historical perspective.

**420** **EDUCATIONAL TECHNOLOGY (FO) (SO)** **Three Credits**  
 Focus on incorporating multimedia skills needed for competence in K-12 settings. Introduction to Power Point and Microsoft Excel as tools for grading, alongside the innovation of online teacher management applications.

**486** **EDUCATIONAL PSYCHOLOGY AND BEHAVIOR MANAGEMENT (FO) (SO)** **Three Credits**  
 Study of basic concepts, theories and techniques of sociology and social psychology in analyzing and interpreting the American school institution, functioning in a national society and constantly confronting and adjusting to problems inherent in social change.

**488** **SCHOOL-COMMUNITY RELATIONS (FO) (SO)** **Three Credits**  
 Study of the relationships between the local school and the local community, examining the impact of social classes and systems on education, providing opportunity for community field experience, and exploring means by which to involve various proponents of the community in the educative process.

**498** **BUSINESS METHODS FOR SECONDARY SCHOOLS (FO)** **Three Credits**  
**PREREQUISITES: SED 201, 233, 380; all freshman and sophomore level courses, and the teacher's examination for licensure requirements**  
 Instructional systems and materials for teaching business, office technology, and computer-related subjects.

**499** **DIRECTED TEACHING IN SECONDARY SCHOOLS (E)** **Three Credits**  
**PREREQUISITE: Completion of all Courses Required for Secondary Majors**  
 Observation and participation at the secondary level, including off-campus, field-oriented activities (five days per week) under the supervision of cooperating public school/college personnel. Following observation and orientations under the direction of cooperating teachers, students will teach assigned classes. They also attend weekly sessions of discipline specific instructional method conducted by professors associated with the various disciplines.

\* Enrollment requires completion of requirements for admission to teacher education.

## SOCIAL WORK - SWK

### 200 Three Credits INTRODUCTION TO SOCIAL WORK (EE)

Introduction to the profession of social work which exposes to social work history, values and ethics, intervention methods, fields of practice and organizational settings. Special emphasis on the nature and functions of social work and the diversity of roles for the generalist practitioner.

### 207 Three Credits SOCIAL WELFARE POLICIES AND SERVICES I (EE) PREREQUISITE OR COREQUISITE: SWK 200

Study of social problems and social work commitment to diversity, social and economic justice and populations - at - risk. Specific emphasis on the historical background of social welfare and the emergence of the social work profession.

### 220 Three Credits HUMAN BEHAVIOR AND SOCIAL ENVIRONMENT (EE) PREREQUISITES: SWK 207; PSY 210; SOC 110 or 101; HED 100; BIO 105

Examination of the dynamics of multi-level social systems, as they have an impact on the development and well-being of individuals from preconception through childhood. Study of the interaction between and among human biological, social, psychological and cultural systems as they affect and are affected by human behavior. Emphasis on the functions of human behavior, social environment theory and research as they inform social work practice.

### 300 Three Credits SOCIAL WELFARE POLICIES AND SERVICES II (EE) PREREQUISITE: SWK 207 COREQUISITE: SWK 312

Study of social problems and social work commitment to diversity, social and economic justice and populations-at-risk. Emphasis on the institutional nature of social welfare, the relationship to other institutions, and social welfare policies implemented into social welfare programs.

### 309 Three Credits HUMAN BEHAVIOR AND SOCIAL ENVIRONMENT II (EE) PREREQUISITES: SWK 220; PSY 210; BIO 105 OR BIO 165; HED 100; SOC 101 or 110;

Examination of the dynamics of multi-level/social systems, as they have an impact on the development of individuals from adolescence through dying and death. Study of interaction between and among human biological, social, psychological and cultural systems as they affect and are affected by human behavior.

### 312 Three Credits INTRODUCTION TO GENERALIST PRACTICE (EE) PREREQUISITE: SWK 220 COREQUISITE: SWK 300

This course is the first of three required courses in the General Practice Sequence. This first course provides students the foundation knowledge, values and skills that form the holistic conceptual framework of generalist social work practice.

### 313 Three Credits GENERALIST PRACTICE: INDIVIDUALS/FAMILIES (EE) PREREQUISITE: SWK 312

This course is the second in the Generalist Practice Sequence. The course is designed to teach BSW students how to differentially apply the general method of social work practice with individuals and families from diverse populations.

### 314 Three Credits NATURE AND MEANING OF CHILD WELFARE (EE) PREREQUISITE: SWK 300

This course is designed to present a broad knowledge of the principle child welfare services, programs, and policies that are aimed at strengthening and preserving the institution of the family and fostering the development and well being of children.

### 315 Three Credits SOCIAL WORK WITH FAMILIES (FO) PREREQUISITE: SWK 312

Introduction to the knowledge of family dynamics and the intervention skills and techniques necessary to serve families efficiently and effectively, especially low-income families. Emphasis on family intervention based upon systems concepts and ecostructural thinking.

### 318 Three Credits

### GENERALIST PRACTICE: GROUPS, ORGANIZATIONS AND COMMUNITIES (EE) PREREQUISITE: SWK 313

Examination of theories and methods of social work in macro and mezzo practice. Emphasis on the development of skills related to engagement, data collection, problem identification/assessment, intervention, termination and evaluation in working with groups, organizations and communities.

### 319 Three Credits HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT III (EE) PREREQUISITE: SWK 313

Examination of the dynamics of multilevel/social systems as they have an impact on the formation and development of the diverse contemporary American family. Emphasis on the interactions between and among family diversity, biological, social, psychological and cultural systems as they relate to the family unit.

### 321 Three Credits SOCIAL WORK AND THE AGED (SO) PREREQUISITE: SWK 312

This course describes the process of aging from four areas of knowledge, biological, psychological, sociological, and economic, with emphasis on aging in America as it relates to social justice, and social problems.

### 324 Three Credits HEALTH CARE AND SOCIAL SERVICES (FO) PREREQUISITE: SWK 313

Overview of health care and its social services delivery system in America. Examination of the value orientation, socio-cultural, racial-ethnic, political, economic, research, and policy aspects of health care. Emphasis on the roles of several health-care deliverers, and the impact of illness, environment, ecology, and nutrition.

### 326 Three Credits TECHNIQUES OF COUNSELING (SS) PREREQUISITE: SWK 312

This course presents an overview of the major theories of counseling and psychotherapy. It provides in-depth study of the basic theoretical assumptions and concepts of counseling individuals and families.

### 327 Three Credits INTERVIEWING TECHNIQUES (EE) PREQUISITE: Students should be at the junior and senior levels

Study of the general principles and techniques of interviewing and recording, which may be applied not only in social work but also in other occupations.

### 328 Three Credits HIV/AIDS IN THE AFRICAN AMERICAN COMMUNITY (EE) This course is designed as an upper-level elective course to provide students with knowledge of and an overview of the disease of Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome. The course explains the scientific and epidemiological features of the disease, social ramifications of risk-behavior, medications, testing, interventions, advocacy and policy issues.

### 411 Three Credits CONTEMPORARY SOCIAL POLICY ISSUES (SO) PREREQUISITE: Open to senior Social Work majors

Contemporary Social Policy issues is an advanced elective policy course for the baccalaureate social work student who is trained as a generalist. This course, generally taken in the junior/senior year, builds on students liberal arts perspective, foundation policy classes, as well as the knowledge, values, and skills gained in the Generalist Practice, Human Behavior, and Research sequences.

### 416 Three Credits GENERALIST PRACTICE: EVALUATION (EE) PREREQUISITES: SOC 344, 355; SWK 318

Focus on understanding and refining skills in the application of the techniques for evaluation of generalist practice. Emphasis on understanding and refining practice skills that center on evaluation of social work practice. Research procedures and designs studied as a means of objectively assessing the efficiency and efficacy of social work practice intervention. Ethical issues of practice and evaluation practices addressed relative to oppressed populations.

### 490, 491 Two Credits PRACTICUM SEMINAR (EE) PREREQUISITES: All previously required courses and concurrent enrollment in practicum

Opportunity to integrate theory with field practice. Also assists in evaluating practice performance while exploring personal and professional values and ethics.

### 492 Three Credits INDEPENDENT STUDY IN SOCIAL WORK (EE) PREREQUISITE: Open to senior Social Work majors

Opportunities to engage in student and/or faculty-initiated special projects which explore some dimension of social work practice and/or theory.

### 495, 496 Ten Credits PRACTICUM IN SOCIAL WORK (EE) PREREQUISITES: All previously required courses and concurrent enrollment in seminar

Internship in a social welfare agency. 225 hours per semester while engaged in a supervised practice experience where generalist skills are utilized/required.

### 497 Three Credits MACRO AND MICRO PERSPECTIVES ON INTERNATIONAL SOCIAL WELFARE (FO) PREREQUISITE: Open to senior Social Work majors

This course is an advanced level social policy course designed primarily for the baccalaureate student interested in exploring the interplay among macro social systems in selected western and non western societies as they relate to general social welfare.

## SOCIOLOGY - SOC

### 101 Three Credits INTRODUCTION TO THE SOCIAL SCIENCES (E)

Introduction to common and divergent perspectives of the social sciences, including the general methods and special techniques used by social scientists to acquire an understanding of how human beings behave. Emphasis on the United States and on a global context.

### 110 Three Credits INTRODUCTION TO SOCIOLOGY (E)

Introduction to the basic perspectives, concepts, and principles of sociology, with emphasis on basic social processes such as social organization, culture, socialization, deviance, and inequality. Study of the functioning and influences of major social groups, such as the family and government. Application of the principles to understanding everyday life.

### 137 Three Credits SOCIAL PROBLEMS (FS)

Study of current social issues such as poverty, race and ethnic relations, unemployment, crime, drug use, the elderly, population and environmental problems. Examination of various explanations, consequences, and suggested solutions for each problem.

### 205 Three Credits HUMAN SEXUALITY (SS)

Examination of the sociocultural, psychological and physiological factors related to human sexual behavior. A forum for a scientific examination of the various processes by which humans develop and manifest their sexual identity and sexual behavior.

### 225 Three Credits SOCIAL SCIENCE RESEARCH SKILLS (E) PREREQUISITE: Sophomore Standing

Development of knowledge of using a large number of library resources to enhance skills in choosing a research topic, making a bibliography, taking notes, writing and outlining, collecting primary data, interpreting tables and graphs, and writing research papers and abstracts.

### 228 Three Credits DEMOGRAPHIC PRINCIPLES (FS) PREREQUISITE: SOC 110 or Consent of Instructor

Study of the relationship between population and society; the historic growth of population and its causes; the composition and historic growth of population in terms of age, sex, race, occupation, education, and health; factors influencing birth and death rates; and trends and problems in world population.

### 234 Three Credits URBAN SOCIOLOGY (SO) (SS) PREREQUISITE: SOC 110 or Consent of Instructor

Study of origin and development of urban life with emphasis on the family, housing, health, education, poverty and dependency, crime and the treatment of the criminal.

### 237 Three Credits RACIAL AND ETHNIC MINORITIES (E)

Examination of problems and issues characterizing interaction patterns among different racial, ethnic, and religious groups. Study of the concepts of race, nationality, prejudice, and discrimination, including racism, intergroup conflict, segregation, unemployment, crime and juvenile delinquency, education, housing and instability, and poverty in

contemporary industrial-urban societies. Focus on psychological, social, and cultural factors that influence interaction between dominant and minority groups, as well as the issues and problems related to blacks in the United States.

**242 Three Credits**  
**INTRODUCTION TO ANTHROPOLOGY (SI)**

Study of human evolution, racial origins, prehistoric cultures, modern races and their classifications, problems of race, nationality, language, mixture, and mental differences; growth and spread of religion and culture. Special emphasis on the nature and diversity of culture.

**250 Three Credits**  
**SOCIETAL USES OF NATURAL RESOURCES (SI)**  
**PREREQUISITE: SOC 110 or Equivalent**

Study of social implications of environmental issues, including the current energy situation. Examination of how societies depend on and interact with the natural environment, how they distribute and use natural resources, and how they create and react to pollution problems. Emphasis on social behavior, attitudes, and public policy issues. Evaluation of alternative strategies for solving environmental and energy problems.

**301 Three Credits**  
**DEMOGRAPHIC METHODS I (SI)**

Study of the measurement of population size, distribution and age/sex structure, including fertility, mortality, migration, nuptial patterns, and population growth. Emphasis partly on derivation of demographic measures and the interpretation and real-world applications of these measures.

**302 Three Credits**  
**MIGRATION (SI)**

Study of migration with emphasis on its measurement, causes and consequences. Discussion of internal and international migration, including the consequences of migration on the "donor" and "host" areas. Examination of migration patterns within the United States, with emphasis on the migration patterns of African-Americans since the turn of the twentieth century. Study of the United States immigration policy with particular reference to refugee and immigration legislation.

**303 Three Credits**  
**FERTILITY AND FAMILY PLANNING (SI)**

Survey of fertility concepts, measurements, trends, levels, and explanations. Evaluation of the biological and social components of fertility. Fertility control is discussed with emphasis on intercourse, conception, and gestation variables. Social issues related to fertility are highlighted.

**304 Three Credits**  
**MORTALITY (SI)**

Discussion of the components of mortality (life span and longevity). Examination of the causes of death and mortality differentials by gender, occupation, income/education, race/ethnicity, marital status, and urban/rural areas. Emphasis on infant mortality in developing societies and among the urban poor of industrialized societies.

**325 Three Credits**  
**SOCIOLOGY OF BUSINESS AND INTERNATIONALISM (FS)**

Study of the relationship between businesses and society, which involves multicultural and international approaches and takes into account the impact of changes in society, business practices and technology on societal structure. Special emphasis on the roles of industrial revolution, modern technology and information science. Analysis of the current international environment, the interconnectedness of businesses, societies and economic processes. Examination of the effect of business practices on environmental problems and possible solutions. Discussion of the ethical issues and business practices that contribute to the development of societies and people's lives.

**331 Three Credits**  
**SOCIAL PSYCHOLOGY (FS)**

Examination of human social behavior at the individual and interpersonal level. Discussion of socialization, power, attitude formation and change, conformity, and language to provide an understanding of how persons are influenced by interaction with other persons as members of social groups. The focus is primarily basic social science, emphasizing major theoretical ideas and research findings. Applications to everyday life are also considered.

**338 Three Credits**  
**SOCIOLOGY OF FAMILIES (SO) (SS)**  
**PREREQUISITE: SOC 110 or Consent of Instructor**

Study of the family and its function among primitive peoples; the different types of family organizations; history of marriage and divorce in Europe and the United States; changing idea of

family life; the functions of the family in the modern world; and contemporary problems.

**344 Three Credits**  
**METHODS OF SOCIAL RESEARCH (E)**

This course introduces students to the basic principles and procedures involved in social science research. The major purpose is to assist students in becoming competent consumers of research. Thus, emphasis is placed on understanding the research process, noting the reasons for particular procedures and the errors and limitations inherent in any research project. Topics covered include the scientific method, conceptualization, formulation of hypotheses, research design, analysis and interpretation of research findings, theoretical basis of research, application and evaluation of research, and the nature of science. Students participate in research projects and prepare reports.

**355 Three Credits**  
**ELEMENTARY SOCIAL STATISTICS (E)**

Introduction to the parametric and non-parametric techniques of summarizing data, including measures of central tendency and dispersion, measures of association, correlation and regression, and statistical inference. Emphasis on mastering skills needed to apply statistics rather than on theoretic concerns.

**356 Three Credits**  
**INTERMEDIATE SOCIAL STATISTICS (SI)**  
**PREREQUISITE: SOC 355**

Study of the solid statistical foundations necessary to develop competence in the analysis and interpretation of sociological data. It assumes knowledge of basic statistical principles, including measures of central tendency, measures of dispersion and normal curve probability distribution. Emphasis on hypothesis testing, logic, application, and interpretation of test statistics. Graphic and tabular presentation of data are highlighted. Parametric and nonparametric tests of significance and tests of association are discussed. Special attention is given to regression analysis, with emphasis placed on the derivation and interpretation of coefficients. Extensive use is made of statistical packages, thereby enabling the student to explore complex survey and demographic (Census) data.

**393 Six Credits**  
**INTERNSHIP (E)**  
**COREQUISITE: SOC 394**

Various duties in agencies and organizations active in the fields of gerontology, urban affairs, and criminal justice. An agency supervisor and the internship supervisor direct each student in mastering relevant skills to complete the tasks associated with a significant position in the internship agency.

**394 Zero Credit**  
**INTERNSHIP SEMINAR (E)**  
**COREQUISITE: SOC 393**

Opportunity to relate intern experiences to a systematic, theoretical body of knowledge. Identifies and discusses common problems and possible solutions.

**395 Six Credits**  
**EXTENDED INTERNSHIP (E)**

The course is restricted to students who enroll concurrently in SOC 393 - Internship. It is designed to provide students an additional 240 hours of intensive agency experience, coupled with systematically relating theoretical knowledge to social application and research inquiries. The major aim is to allow students to become proficient in the social agency experience. It can be used as free elective hours.

**401 Three Credits**  
**DEMOGRAPHIC METHODS II (SI)**  
**PREREQUISITE: SOC 301**

More in-depth treatment of demographic measures, using demographic computer software. Population estimates and projections for small and large areas are undertaken.

**402 Three Credits**  
**FAMILY DEMOGRAPHY (SI)**

Examination of demographic views on nuptial patterns, fertility, marital formation, marital dissolution, family planning, and household formation. Emphasis on demographic factors facilitating male domination of women in the family. Related social issues of pertinence include female labor force participation, teenage motherhood, illegitimacy, female-headed households, and cohabitation. Focus on life-cycle changes.

**403 Three Credits**  
**POPULATION GROWTH, FOOD AND THE ENVIRONMENT (SI)**

Survey of the interrelationships within the environment, which examines the pattern of food production in the world, starting from the Agricultural Revolution to the Green Revolution, and looks closely at the relationship growth. Answers are sought

to the often-asked question: Will there be enough food to feed the world's growing population? Emphasis on the harmful effects on the environment of attempting to increase agricultural yield.

**404 Three Credits**  
**POPULATION AND SOCIOECONOMIC DEVELOPMENT (SI)**

Study of the relationship between population growth and socioeconomic change, especially in regard to the developing societies of Africa, Latin America, and South-East Asia. Examination of the debate as to whether population growth is stimulative or retardative to economic development. Assessment of cross-cultural data on population growth and development indicators. Utilization of country case studies.

**405 Three Credits**  
**READINGS IN URBAN/DEMOGRAPHY**  
**PREREQUISITE: Approval of the Faculty in Sociology**  
Intensive directed reading course for exceptionally able.

**406 Three Credits**  
**TOPICS IN URBAN/DEMOGRAPHY (SI)**  
**PREREQUISITE: Senior Standing and Consent of Instructor**

Examination of trends and emerging issues in the field of urban/demography.

**446 Three Credits**  
**SOCIOLOGICAL THEORY (FS)**  
**PREREQUISITE: Junior or Senior Standing**

Survey and analysis of the main types of sociological theories and of the major theoretical concepts in Sociology. Special emphasis on outstanding theorists, past and present, and their works.

**458 Three Credits**  
**SOCIAL STRATIFICATION (FO) (O)**

Evaluation of the pervasive phenomenon of social inequality in society. Discussion of the various theoretical explanations offered by Karl Marx and other social scientists. Exploration of some of the current and classic research findings. Description of the different kinds of inequality and social structural forms that occur. Examination of the international and American stratification systems is included.

**462 Three Credits**  
**COMPLEX ORGANIZATIONS (SO) (SS)**

Survey of the evolution and dynamics of bureaucratic organization and administration. Analysis of classical writings and findings from empirical research to provide students with broad perspectives of the structure and functions of organizations in a complex industrial-urban society. Special emphasis on unique characteristics of different kinds of organizations. Study of alternative techniques for the assessment of the effectiveness of complex organizations.

**485 Three Credits**  
**SEMINAR IN SOCIOLOGY (SI)**  
**PREREQUISITE: Junior or Senior Standing and Consent of Instructor**

Review and evaluation of major concepts, literature, and methodology of social research.

**491 Three Credits**  
**READINGS IN SOCIOLOGY (SI)**  
**PREREQUISITE: Approval of the Faculty in Sociology**  
Intensive directed reading course for exceptionally able students.

**495 Three Credits**  
**TOPICS IN SOCIOLOGY (SI)**  
**PREREQUISITE: Senior Standing and Consent of Instructor**  
Examination of trends and emerging issues in a dynamic social world.

**499 Three Credits**  
**APPLIED SOCIOLOGY (FS)**  
**PREREQUISITE: Senior Standing; SOC 344 and 355**  
Empirical investigation of a research problem under direction of the chairman of the Department.

## SPANISH - SPN

**111 Three Credits**  
**ELEMENTARY SPANISH I (E)**  
Introduction to the fundamentals of pronunciation, grammar, structure, vocabulary, conversation, and reading.

**112 Three Credits**  
**ELEMENTARY SPANISH II (E)**  
**PREREQUISITE: SPN 111 or Equivalent**  
Continuation of the fundamentals of pronunciation, grammar, structure, vocabulary, conversation, and reading.

**113 Three Credits**  
**BASIC CONVERSATION I (SI)**  
 Emphasis on acquiring conversational skill with minimal involvement with formal study of grammar for those students who have had no previous training in Spanish.

**114 Three Credits**  
**BASIC CONVERSATION II (SI)**  
**PREREQUISITE: SPN 113 or Permission**  
 Emphasis on acquiring conversational skill with minimal involvement with formal study of grammar for those students who have had no previous training in Spanish.

**211 Three Credits**  
**INTERMEDIATE SPANISH I (EE)**  
**PREREQUISITE: SPN 112 or Equivalent**  
 Review of grammar, reading of moderately difficult prose, oral practice, and written composition.

**212 Three Credits**  
**INTERMEDIATE SPANISH II (EE)**  
**PREREQUISITE: SPN 211 or Equivalent**  
 Intensive and extensive study and reading of modern prose, oral practice, and composition.

**214 Three Credits**  
**ENTREPRENEURIAL SPANISH (SI)**  
**PREREQUISITE: SPN 112**  
 Study of the concepts of Spanish business language and culture to prepare students to be competitive in an increasingly global marketplace.

**215 Three Credits**  
**INTERMEDIATE CONVERSATION (SI)**  
**PREREQUISITE: SPN 212 or Equivalent**  
 Study of oral practice in everyday situations. Special stress on idiomatic expressions and on fluency. Conducted largely in Spanish.

**216 Three Credits**  
**EXPLICATION DE TEXTOS (SI)**  
**PREREQUISITE: SPN 215 or Equivalent**  
 Transitional course designed to prepare students for the study of advanced texts from the literary and linguistic points of view.

**220 Three Credits**  
**SPANISH CIVILIZATION (SI)**  
**PREREQUISITE: SPN 212 or Equivalent**  
 Survey of the most important elements of Spanish civilization, geography, economy, political history, arts, sciences, and institutions. Conducted in Spanish.

**221 Three Credits**  
**LATIN-AMERICAN CIVILIZATION I (SI)**  
**PREREQUISITE: SPN 215 or Equivalent**  
 Similar in scope and content to SPN 220. Aims to acquaint the student with the essential aspects of the geography, history and culture of Latin America. Conducted in Spanish.

**315 Three Credits**  
**ADVANCED CONVERSATION (SI)**  
**PREREQUISITE: SPN 215 or Permission of the Instructor**  
 Intensive and extensive practices in the oral use of Spanish. Conducted in Spanish.

**320 Three Credits**  
**LATIN-AMERICAN CIVILIZATION II (SI)**  
**PREREQUISITE: SPN 215 or Permission of the Instructor**  
 Survey of the most important elements of contemporary Latin-American culture. Conducted in Spanish.

**321 Three Credits**  
**SURVEY OF SPANISH LITERATURE I (SI)**  
**PREREQUISITE: SPN 216 or Equivalent**  
 Study of representative works of Spanish literature from the beginning to the end of the 17th century. Conducted in Spanish.

**322 Three Credits**  
**SURVEY OF SPANISH LITERATURE II (SI)**  
**PREREQUISITE: SPN 216 or Equivalent**  
 Study of representative works of Spanish literature from the beginning of the 18th century to the middle of the 20th century.

All literature courses beyond this level are conducted in Spanish.

**324 Three Credits**  
**SPANISH-AMERICAN LITERATURE (SI)**  
**PREREQUISITE: SPN 216 or Equivalent**

Comprehensive study of the main currents of Spanish-American literature from its origins to the contemporary period. Lectures, discussions, and assigned reports are required.

**326 Three Credits**  
**NON-DRAMATIC LITERATURE OF THE GOLDEN AGE (SI)**  
**PREREQUISITE: SPN 321**  
 Critical study of the poetic, novelistic, and didactic styles of the period 1550-1650, exclusive of the works of Cervantes.

**332 Three Credits**  
**LITERATURE OF THE 19TH CENTURY (SI)**  
**PREREQUISITE: SPN 322**  
 Includes Romanticism in poetry and drama, Costumbrismo, the regional novel, and the beginning of the modern theatre. Analysis of texts and literary theories in class discussion.

**333 Three Credits**  
**LITERATURE OF THE 20TH CENTURY (SI)**  
**PREREQUISITE: SPN 322**  
 Studies the works of significant writers in Spain and Spanish America of the contemporary period. Discussions, reports, and lectures in Spanish and English.

**340 Three Credits**  
**DRAMA OF THE GOLDEN AGE (SI)**  
**PREREQUISITE: SPN 321**  
 Investigation of the rise of drama and intensive study of representative drama of Lope de Vega, Tirso de Molina, Alarcón, Moreto, and Calderon.

**350 Three Credits**  
**CERVANTES (SI)**  
**PREREQUISITE: SPN 321**  
 Study of Cervantes as dramatist and novelist. Includes study of Don Quixote and of Cervantes' purpose and plans in the presentation.

**382/FRN 382 Three Credits**  
**THE TEACHING OF FOREIGN LANGUAGES IN SECONDARY SCHOOLS**  
**PREREQUISITE: SED 380**  
 Study of methods and materials in the teaching of modern foreign languages.

**412 Three Credits**  
**LANGUAGE FOR PROFESSIONALS**  
**PREREQUISITE: SPN 315 or Permission of the Instructor**  
 Intensive and extensive practice in the language of technical, vocational, and professional areas. All four language skills (comprehension, speaking, reading, and writing) are stressed. Special emphasis upon the student's secondary area of concentration.

**413 Three Credits**  
**INDIVIDUALIZED LANGUAGE FOR PROFESSIONALS (SI)**  
**PREREQUISITE: SPN 315 or Permission of the Instructor.**  
 Intensive practice in the language of technical, vocational or professional area.

**450 Two Credits**  
**PHONETICS (SI)**  
**PREREQUISITE: SPN 215 or Equivalent**  
 Analysis of the phonetic features of Spanish. Systematic exercises in pronunciation, intonation, and reading of prose and poetry.

**454 Three Credits**  
**ADVANCED GRAMMAR AND COMPOSITION (SI)**  
**PREREQUISITE: SPN 215 or Equivalent**  
 Intensive review and application of Spanish grammar. Intensive practice in writing and study of vocabulary and idioms.

**485 Two Credits**  
**CONTRASTIVE LINGUISTICS: SPANISH-ENGLISH (SI)**  
**PREREQUISITE: SPN 215 or Equivalent**  
 Introduction to the study of the principal phonological, morphological, syntactical, and lexical contrasts between Spanish and English. No previous work in linguistics is required.

**490 Three Credits**  
**SENIOR SEMINAR (SI)**  
**PREREQUISITE: Departmental Permission**  
 Intensive readings and oral and written reports required. Student will complete a senior thesis, that is, do independent research on a topic selected by the student, approved by the student's department and advisor, and completed under the guidance of that advisor.

## SPECIAL EDUCATION - SPE

**EDU 101 Three Credits**  
**COLLEGIATE COMMUNICATION LITERACY SKILL**

Introduction to the integrated communication skills required for academic success at the University. Emphasizes basic college survival skills and progresses to specific strategies for reading, writing, note taking, and exam taking.

**103 Three Credits**  
**COLLEGIATE QUANTITATIVE LITERACY SKILL**  
 Reinforcement of basic skills in quantitative literacy and general mathematics, including numerical concepts, algebras, as well as Internet essentials to aid in solving real world problems. Emphasis on study tips and math anxiety-reducing strategies.

**105 Three Credits**  
**OVERVIEW OF INCLUSION EDUCATION AND SERVICES**  
 Overview of the planning and delivery of education in inclusive classrooms, including an update on relevant legislation, the functions of the multidisciplinary team, as well as the role and responsibilities of the paraprofessional in the classroom.

**107 Three Credit**  
**HUMAN RELATIONS SKILLS AND ETHICS**  
 Development of human relations skills associated with personal and career success. Examination of ethical principles to guide performance in the workplace.

**109 Three Credits**  
**GUIDING CLASSROOM BEHAVIORS OF LEARNERS**  
 Overview of approaches to promoting positive behaviors and managing challenging behaviors in the classroom. Focus on application of practical strategies.

**111 Three Credits**  
**LEARNING THROUGH LITERATURE**  
 Study of the use of literature for instruction. Varied genres are explored and storytelling is described as a mechanism to increase literacy.

**113 Three Credit**  
**FACILITATING READING INSTRUCTION**  
 Study of some basic understanding of the dynamics involved in the complex activity of reading for the paraprofessional. Emphasis on tips, hints, and strategies for supporting students with reading instruction.

**EDU 115 Three Credits**  
**FACILITATING LEARNING MATHEMATICS AND SCIENCE CONCEPTS**  
 Study of some basic strategies for supporting students with their mathematics and science instruction. Emphasis on a historical approach to undergird the role of mathematics and science in today's classroom.

**198 Three Credits**  
**PRACTICUM FOR PARAPROFESSIONALS**  
**PREREQUISITE: Complete Practicum Application**  
**Departmental Endorsement**  
 Educational experiences in supervised off-site observation and participation with opportunities to interact with individuals from diverse populations.

**210 Three Credits**  
**AMERICAN SCHOOLS AND THE TEACHING PROFESSION (E)**  
 Orientation to contemporary elementary and secondary schools in America with on-site experiences in diverse classrooms. Emphasis on educating exceptional learners about the changing nature of the teaching profession.

**213 Three Credits**  
**CRITICAL THINKING AND ASSESSMENT SKILLS (E)**  
 Development of test taking skills on standardized examinations of education majors. Emphasis on reading, writing, mathematics, and critical thinking skills.

**295 Three Credits**  
**PRACTICUM IN VOLUNTEER COMMUNITY SERVICE**  
 Experience in guided leadership development in community service volunteering. Participation in a community service project sponsored by a recognized community agency in this geographic region. Sixty-five clock hours of service learning experience required.

**311 One Credit**  
**PRINCIPLES AND PRACTICES IN MULTICULTURAL EDUCATION (SO)**  
 Introduction to cultural differences among children, youth and adults in a pluralistic society. Opportunity to study and to critically examine differences related to institutional racism, classism, sexism, ageism, and homophobia. Examination of historical and contemporary perspectives of the multicultural competencies required for a teacher to function successfully in today's pluralistic society.

**312 Three Credits**

**EDUCATIONAL PSYCHOLOGY AND BEHAVIOR MANAGEMENT (FO)**

Study of basic concepts of behavioral conditioning principles and management of behavior in the classroom. Emphasis on practical applications of learning theories to the teaching, learning situation for individuals in home, school, and community environments. (a twenty-hour clinical experience required).

**321 Three Credits CHARACTERISTIC, MEDICAL AND LEGAL ASPECTS IN SPECIAL EDUCATION (FO)**

Study of the medical/biological and environmental etiologies of disabling conditions that can occur prenatally, perinatally, and postnatally. Emphasis on preventive, diagnostic, and prescriptive/treatment procedures and the impact of etiologies on learning potential. (a twenty- hour clinical experience required).

**332 Three Credits UNDERSTANDING AND TEACHING LEARNERS WITH MENTAL RETARDATION (FO) (SO)**

Focus on the nature of and strategies for teaching learners with mental retardation, including terminology and etiological factors, historical perspectives, legal parameters, assessment techniques, influence of cultural variables, current issues, and effective methods of instruction. (a twenty- hour clinical experience required).

**334 Three Credits UNDERSTANDING AND TEACHING LEARNERS WITH EMOTIONAL DISTURBANCE (SO)**

Experience in the field of emotional disturbance, including historical and theoretical perspectives, definitions and characteristics, legal and ethical considerations, assessment procedures, program planning, and implementation of instruction for expanding the academic performance of individuals with emotional disturbance. Learning experiences focus on multicultural influences, emotional adjustment, and social development. (a twenty- hour clinical experience required).

**336 Three Credits UNDERSTANDING AND TEACHING STUDENTS WITH LEARNING DISABILITIES (FO)**

Experience in the field of learning disabilities, including historical and theoretical perspectives, definitions and characteristics, related effects, legal and ethical considerations, assessment procedures, program planning, and implementation of instruction for expanding literacy and subject area performance. Learning experiences focus on teaching linguistically and culturally diverse individuals with learning disabilities.

**344 Three Credits TEACHING READING TO EXCEPTIONAL LEARNERS (SO)**

Study of comprehensive active learning designed to provide a foundation in literacy instruction and content area reading. Emphases on language acquisition and the interrelated nature of reading, writing, speaking, listening, and thinking to promote the exceptional learner's use and understanding of language. Field experiences facilitate student mastery of developing a balanced reading program.

**395H Three Credits PRACTICUM IN VOLUNTEER COMMUNITY SERVICE (SO)**

Experience of leadership development through community service volunteering. Participation in a project sponsored by a community agency as well as forty-five hours of volunteer and service learning required.

**440 Three Credits COLLABORATION, INCLUSION, TRANSITION AND OTHER CURRICULAR ADJUSTMENTS (FO) (SO)**

Study of curricular development and adjustment procedures for exceptional learners, utilizing curriculum materials, assessment techniques, and instructional approaches to remedial learning and behavioral problems. (twenty- hour clinical experience required).

**451 Three Credits PSYCHOEDUCATIONAL DIAGNOSTIC PROCEDURES (SO)**

Study of a foundation for understanding the psychoeducational diagnostic process and the skills necessary for conducting meaningful assessments. Emphasis on the testing domains of intelligence, language, perception, academics, overt behavior, affective competence, and vocational assessment. Educational experiences focus on teaching linguistically and culturally diverse learners. (twenty-hour clinical experience required).

**461 Three Credits TEACHING SIGN LANGUAGE (SO)**

Introduction to American Sign Language (ASL) and its application within the deaf community. Emphasis on developing receptive and expressive skills for everyday

interaction, or effective communication, with deaf/hard of hearing individuals and other nonverbal persons with severe disabilities.

**490 Three Credits ASSESSMENT OF EXCEPTIONAL STUDENTS (SO)**

Introduction to components and procedures for educational assessment of exceptional learners. Emphasis on purpose, history, terminology, and basic educational/evaluation concepts. Orientation to formal and informal instruments for measurement and evaluation. (twenty- hour clinical experience required).

**499A Six Credits DIRECTED TEACHING - EMOTIONAL DISTURBANCE (FO) (SO)**

**PREREQUISITES: Departmental Approval**  
Supervised teaching experience with emphasis on increasing responsibility for a given group of individuals with emotional disturbance for a definite period of time. Students plan and write instructional interventions, deliver instruction, monitor and document student progress, and assume all other classroom duties of the cooperating teacher. Opportunities to interact with individuals from diverse populations.

**499B Six Credits DIRECTED TEACHING - LEARNING DISABILITIES (FO) (SO)**

**PREREQUISITES: Departmental Approval**  
Supervised teaching experience with emphasis on increasing responsibility for a given group of individuals with learning disabilities for a definite period of time. The candidate will assess students, plan and write instructional interventions, deliver instruction, monitor and document student progress, and assume all other classroom duties of the cooperating teacher. Opportunities to interact with individuals from diverse populations.

**499C Six Credits DIRECTED TEACHING - MENTAL RETARDATION (FO) (SO)**

**PREREQUISITE: Departmental Approval**  
Supervised teaching experience with emphasis on increasing responsibility for a given group of individuals with mental retardation for a definite period of time. The candidate will assess students, plan and write instructional interventions, deliver instruction, monitor and document student progress, and assume all other classroom duties of the cooperating teacher. Opportunities to interact with individuals from diverse populations.

## SPEECH COMMUNICATION - SCM

**285 Three Credits PRINCIPLES OF SPEECH (E)**

**PREREQUISITES: ENG 101 and 102**  
Basic communication theory and practice of public speaking, including information processing skills, oral style, and delivery. Practical emphasis on developing verbal and vocal skills through a variety of speech purposes.

**310 Three Credits SPEECH FOR THE CLASSROOM TEACHER (SI)**

Study of methods to effectively promote an environment for effective oral communication in the classroom, including applied speech, speech improvement, and speech rehabilitation. Special unit on phonetics and phonics provides opportunities for recording and evaluating speech and voice patterns.

**340 Three Credits GROUP COMMUNICATION (FO)**

Study of the processes of communication in small groups. Examination of theories concerning influence of leadership; group structure; and norms and roles in collaborative decision-making, participation in group discussions, and individual research.

**346 Three Credits ORAL INTERPRETATION OF LITERATURE (SI)**

Analysis and presentation of prose, drama, and poetry. Emphasis on discovering and interpreting the elements of oral communication. The fine art of reading literature to an audience.

**350 Three Credits VOICE AND DICTION (EE)**

Study of the fundamental speech processes of voice and articulation, with emphasis on refinement of students' speech patterns through small group drill sessions.

**351 Three Credits COMMUNICATION THEORY (FO)**

Overview of the models of communication based on perception theory, learning theory, socio-psychological models, cybernetics, and attitude change theories.

**380 Three Credits WOMEN IN ORATORY**

Study of the roles of women who have made impacts on modern times through their public addresses or oratory in such areas as education, politics and social action, and the arts.

**390 Three Credits ORAL BUSINESS COMMUNICATION (SI)**

Specialized training in speech communication in a business orientation. Study of basic speech fundamentals with focus on interview techniques. Examination of differentiation between the conference, impromptu session and formal meeting, and parliamentary procedure

**400 Three Credits CONTEMPORARY ISSUES IN INTERPERSONAL RELATIONS**

Examination of the principles of interpersonal communication. Study of theory, skills, and transactional approach to communication.

**410/ COM 510 Three Credits COOPERATIVE ARGUMENTATION AND DECISION MAKING (SI)**

**PREREQUISITE: SCM 285 or Graduate standing**  
Exploration of systematic strategies which increase abilities to react critically and to form arguments. Emphasis on the roles arguments play in the fields of business, education, ethics, the arts, politics and life in general.

**411/COM 511 Three Credits INTERPERSONAL COMMUNICATION (SO)**

**PREREQUISITE: ENG 203 or Graduate Standing**  
Introduction to substantive material in contemporary communication theory, group dynamics, language and thought, and culture patterns of verbal and nonverbal communication. Development of skills in interpersonal communication.

**420 Three Credits HISTORY AND PHILOSOPHY OF SPEECH (SI)**

**PREREQUISITE: SCM 285**  
Identification and analysis of substantive and methodological issues in the field of speech with special emphasis on rhetoric and communications. Reading and guest lectures in history and philosophy of rhetorical theory, rhetorical criticism, group discussion, oral interpretation, and speech and hearing.

**440 Two/Three Credits SEMINAR IN CONTEMPORARY ORATORS (SI)**

Study of contemporary great orators, including an anthology of contemporary writings and messages with emphasis on techniques and styles in relation to social and psychological influences.

**485 /COM 585 Three Credits FAMILY COMMUNICATION**

**PREREQUISITE: SCM 285 or Graduate standing**  
Examination of family and relational communication through a system approach to family/relational roles, rules, and membership. Emphasis on the family in today's world as its communication relates to self-disclosure, power conflicts, and stress.

## SWAHILI - SWA

**111 Three Credits ELEMENTARY SWAHILI I (SI)**

Study of pronunciation, grammar, structure, vocabulary, and conversation in Swahili. Introduction to Swahili culture and reading material.

**112 Three Credits ELEMENTARY SWAHILI II (SI)**

**PREREQUISITE: SWA 111 or Equivalent.**  
Emphasis on reading, writing, and speaking Swahili. Continued study of grammar and vocabulary, incorporating culture and lifestyle of Swahili people.

**211 Three Credits INTERMEDIATE SWAHILI II (SI)**

**PREREQUISITE: SWA 112 or Equivalent.**  
Course taught mainly in Swahili. Emphasis on grammar, reading and discussion of moderately difficult prose, oral practice, and composition.

**212 Three Credits**

**INTERMEDIATE SWAHILI II (SI)****PREREQUISITE: SWA 211 or Equivalent.**

Intensive and extensive study and reading of modern Swahili prose, oral practice, and composition.

## TECHNOLOGY EDUCATION - TED

**130** **MATERIALS TECHNOLOGY** **Three Credits**

Comprehensive study of woods and wood by-products. Focus on a basic understanding of the properties and characteristics of woods, forestry, seasoning, grading, and wood lamination. Development of basic hand tools and machines used in modern woods industry.

**131** **MATERIAL PROCESSING** **Three Credits**

Study of the application of tools, materials, and processes in management procedures for production of goods in a computerized society. Emphasis on development of technological competence through group processes, as well as the use of state-of-the-art equipment in designing and fabricating multiple-materials-products.

**135** **CONSTRUCTION TECHNOLOGY** **Three Credits**

Experience in hands-on work of architects, carpenters, electricians, plumbers, surveyors, contractors, and of a variety of other construction careers, including planning for designing, building, and managing typical construction products. (4 hrs. lab)

**170** **TECHNOLOGY AND SOCIETY** **Three Credits**

Development of an understanding in all aspects of industry and technology springing from the human abilities to reason, solve problems, create, construct, and use materials imaginatively.

**215** **GRAPHIC ARTS** **Three Credits**

Introduction to materials, processes, problems and occupations in graphic arts. Emphasis on the tools and equipment used in letter press, silk-screen process, black printing, offset printing, photographic theory and practice and bookbinding. (4 hrs. lab)

**274** **INSTRUCTIONAL FOUNDATIONS FOR TECHNOLOGY EDUCATION** **Three Credits**
**PREREQUISITE: Sophomore Standing**

Study of recent curriculum developments and practices affecting the design and implementation of technology education programs, including model curriculum development approaches to educational accountability, and individualized instruction. Emphasis on problem-solving activities related to communication, production, and transportation technologies.

**275** **TECHNOLOGY EDUCATION IN THE ELEMENTARY SCHOOL** **Two Credits**

Introduction to technology, existing processes, and trends in industry. Emphasis on hands-on activities which aid understanding of how the technological developments associated with communications, production, energy, power, and transportation have altered man's environment.

**330** **COMMUNICATION TECHNOLOGY** **Three Credits**

Preparation for teacher trainees to combine graphic reproduction, electronics, drawing and design, and photography as a total integrated system in studying the technology used to collect, disseminate, store and use information. Learning activities using materials, processes, and equipment are used in developing useful products. (2 hrs. lec./2 hrs. lab)

**350** **TRANSPORTATION TECHNOLOGY** **Three Credits**

Preparation for teacher trainees to teach the interrelationship of mechanical, electrical, and fluid power within transportation systems of land, sea, air, and space. Emphasis on converting energy, transmitting power, and controlling power. (2 hrs. lec./2 hrs. lab)

**351** **ENERGY AND POWER** **Three Credits**

Systems-oriented study of energy sources, forms of energy, converting energy, methods for converting and transforming energy, and systems for transmitting, measuring, changing and controlling useful power. (6 hrs. lab)

**371** **CURRENT TRENDS IN TECHNOLOGY** **Three Credits**
**PREREQUISITE: Permission**

Examination of recent curriculum development and practices in the design and implementation of technology and technology education programs.

**485** **TEACHING IN TECHNOLOGY EDUCATION** **Three Credits**
**PREREQUISITE: SED 380**

Exploration of instructional approaches and delivery systems appropriate for technology education, focusing on unique approaches and techniques required in contemporary technology learning environments.

## THEATRE - DRM

**113** **THEATRE MOVEMENT I (SI)** **Three Credits**

Development of performer's physical conditioning and awareness of expressive artistic movement.

**114** **INTRODUCTION TO THEATRE (FO)** **Three Credits**

Survey of theatrical forms, techniques, and practices. Reading of selected plays. Attendance at Norfolk State Players' productions required. Lab included.

**120** **STAGECRAFT I (FO)** **Three Credits**

Study of practical and theoretical knowledge of scenery, lighting, and sound design for the Theatre. Lab included.

**123** **THEORY AND TECHNIQUES OF ACTING (SI)** **Three Credits**

Study of actor's resources, including body, mind, and voice. Emphasis on Aristotle's elements of plot, character, diction, thought, rhythm, and spectacle. Focus on play analysis, study of stage practices, gestures, movements, timing, pointing a line, sustaining, and effective characterizations.

**200** **INTERMEDIATE ACTING** **Three Credits**
**PREREQUISITE: DRM 123**

Study of the physical and vocal demands involved in the creation of a role for the stage.

**211** **COMMUNITY THEATRE** **Three Credits**

Study of the history, organization, and production strategies for operating a community theatre.

**212** **IMPROVISATION FOR THE THEATRE (O)** **Three Credits**

Development of the performer by encouraging spontaneity, including group ensemble work through improvisation.

**213** **THEATRE MOVEMENT II (SI)** **Three Credits**

Study of the physical demands involved in various acting styles. Emphasis on movements for classical acting style.

**219** **AFRICAN-AMERICAN DRAMA (FO)** **Three Credits**

Study of major African-American, African, and Caribbean playwrights and their plays.

**220** **STAGE CRAFT II (SI)** **Three Credits**
**PREREQUISITE: DRM 120**

In-depth studies of technical direction, carpentry, lighting, properties, sound, welding, and special effects. Advanced study of technical theatre.

**226/526** **CHILDREN'S THEATRE (SO)** **Three Credits**

Study of theories and methods of children's theatre with concentration on educational goals. Survey of literature and production techniques. Practical work in production of Children's Theatre.

**230** **CREATIVE DRAMATICS** **Three Credits**
**PREREQUISITE: DRM 226/526**

Study of theatre principles and creative process with young children. Emphasis on reading comprehension, positive self-concept, awareness of the aesthetic dimension, and vocabulary and problem-solving skills of young children.

**238** **STAGE MANAGEMENT (SO)** **Three Credits**

Study of guidelines and practical techniques for effective stage management. Emphasis on the planning, staging,

rehearsing, and performing process. Study of Actor's Equity Standards.

**240/540** **THEATRE MANAGEMENT (SO)** **Three Credits**

Study of principles and techniques of organizing and managing theatre production programs in educational, community, and commercial settings.

**310** **STAGE MAKE-UP (FO)** **Three Credits**

Study of stage make-up techniques/designs, practices and equipment. Demonstration of make-up design for an experimental production required.

**315/515** **HISTORY OF THEATRE I (FO)** **Three Credits**

Study of history of the theatre from beginning to 1650.

**316/516** **HISTORY OF THEATRE II (FO)** **Three Credits**
**PREREQUISITE: DRM 315/515**

Study of history of theatre in Europe and America 1650 to the present.

**320/520** **LIGHTING DESIGN (SO)** **Three Credits**

Emphasis on sources and control of light, equipment, and light design.

**321/521** **SCENERY DESIGN (SO)** **Three Credits**
**PREREQUISITE: DRM 120**

Experience with floor plans, elevations, models, and perspective designs for theatrical events. Lab included.

**324/524** **ADVANCED ACTING THEORY (SI)** **Three Credits**
**PREREQUISITE: DRM 200**

Focus on acting, theories, advanced techniques in acting, and styles of acting.

**328** **CONTEMPORARY DRAMA (SO)** **Three Credits**
**PREREQUISITE: DRM 219**

Detailed study of the plays, playwrights, and dramatic movements of the post-World War II period.

**400/500** **COSTUME HISTORY (SI)** **Three Credits**

Study of costume history of Egyptian to modern times. Emphasis on design and construction of costumes for shows. Lab included.

**410/510** **COSTUME DESIGN (SI)** **Three Credits**
**PREREQUISITE: DRM 400**

Study of elements of design in relationship to the planning and constructing of production design concepts. Lab included.

**415** **THEATRE DESIGN WITH COMPUTER** **Three Credits**

Study of computer aided drafting and design specifically aimed at the theatre. Emphasis on a series of projects in research, analysis, and drafting on the computer.

**418/518** **INTERPRETERS THEATRE (SI)** **Three Credits**

Emphasis on script analysis, voicing and staging characters, compiled scripts, and literature as theatre.

**425/525** **DIRECTION OF PLAYS (SI)** **Three Credits**
**PREREQUISITES: DRM 123 and 200**

Emphasis on the origin and development of play direction, basic principles of composition, picturization, movement, rhythm, and pantomimic dramatization. Experience in directing a laboratory production with a cast of three or more.

**430/530** **PLAY WRITING (SI)** **Three Credits**

Script development with emphasis on material, characters, conflict, unity, dramatic action, suspense, and dialogue in relationship to plot, character, thought, diction, music, and spectacle.

**435/535** **ADVANCED TECHNICAL THEATRE** **Three Credits**
**PREREQUISITES: DRM 320/520, 321/521**

Advanced design theory and stage practice. Design of stage lighting, scenery, and sound.

**436** **SOUND DESIGN** **Three Credits**

Exploration of sound equipment: principles, practices, and uses as applied to today's theatre. A series of projects in recording, mixing, editing, and analysis.

**450/550** **RESEARCH SEMINAR (SI)** **Three Credits**  
**PREREQUISITE: Senior or Graduate Level**

Research course in which each student completes an independent research project on some aspect of the theatre, such as a playwright, a theatrical movement, or a historical period.

**460/560** **DRAMATIC THEORY AND CRITICISM (SI)** **Three Credits**  
**PREREQUISITE: DRM 324/524**  
 Major critical theories from Aristotle to present.

## URBAN PLANNING - URP

**192** **INTRODUCTION TO URBAN PLANNING (SO)** **Three Credits**

Study of the role of planning in the development, management, and organization of metropolitan environments. Comprehensive analysis of the overall planning process and how master plans can guide the growth and development of cities and their hinterland.

**201** **PLANNING THEORY (SI)** **Three Credits**

Presentation of theories of urban planning and an in-depth analysis of various academic and professional planning viewpoints of planning theory. Discussion of transitional periods in the evolution process in explaining urban phenomena.

**285** **Three Credits**

**URBAN LAND USE PLANNING (SI)**

Study of management and the use of land in primarily urban centers, including an analysis of the evolution, legislative support, scope and nature of land use planning and management. Emphasis on the evaluation and discussion of various development projects and the public's role in influencing land use development decisions.

**292** **PLANNING LAW (FO)** **Three Credits**

Survey of cases, legislation, and terminology relevant to planning law. Exploration of the social, economic, and environmental interrelationships of the developmental/real estate industry, local government, and the public. Emphasis on the dynamic role of law in planning processes and procedures.

**301** **REGIONAL PLANNING AND THE ENVIRONMENTS (SI)** **Three Credits**

Study of an evolutionary perspective of regional planning on a regional, national, and international level. Emphasis on discussions of population, resource distribution, and economic issues. Examination of the patterns of growth and underdevelopment in the context of regions and cities, including the environmental impacts of urban projects and the public/private sector roles and responsibilities in guiding regional economic and social growth.

**315** **URBAN TRANSPORTATION** **Three Credits**

Analysis of the role of transportation and transportation systems in the movement of people, goods, and services. Emphasis on an integral and vital component of the overall planning process and as the umbilical cord for the economic growth and stability of the community, metropolis, and nation.

**335** **PLANNING DESIGN, TECHNIQUES AND CONCEPTS (SI)** **Three Credits**

Overview of the history and process of urban design. Focus on the environmental movement and the concerns about environmental quality, historic preservation, and the design/development of residential, downtown, and shopping areas, and the effect of citizen-community participation on urban design and development.

**355** **URBAN ECONOMIC DEVELOPMENT PLANNING (SI)** **Three Credits**

Study of the economic vitality of established central cities in conjunction with their metropolitan regions. Primary emphasis on the internal structure of urban areas, including the dynamics of central city economics. Analysis of the dependence of residents upon unstable private capital formation within a city or region and the deleterious effects which capital migration has upon the quality of life in the central city and its environs.

**365** **HUMAN SERVICES PLANNING AND EVALUATION** **Three Credits**

Study of the multidisciplinary nature of planning and evaluation of human services, including such elements as social services, physical and mental health care; housing, drug, and alcohol abuse programs; informational services, etc. Evaluation of the effects of various human services programs on the quality of life of the public in general and on specific populations needing such special resources.

**380** **HOUSING AND COMMUNITY DEVELOPMENT (SI)** **Three Credits**

Introduction to both the rationale and techniques for providing assistance in the community development and city development process. Examination of the myriad institutional and market forces, as well as socioeconomic and demographic factors that affect the supply and the demand for housing. Emphasis on the concepts of citizen participation, self-direction, and self-help in real and simulated neighborhood revitalization efforts.

## OFFICE OF THE PRESIDENT

- MEYERS, CAROLYN W. .... *President*  
 B.S., Howard University; M.S., Ph.D., Georgia Institute of Technology  
 Certificate, Institute for Educational Management, Harvard University. Began service in 2006.
- SCHEXNIDER, ALVIN J. .... *Executive Vice President*  
 B.A., Grambling State University; M.A., Ph.D., Northwestern University. Began service in 2002.
- CURTIS, JACQUELINE A. .... *Special Assistant to the President/Board Liaison*  
 B.S., Central State University. Further study: College of St. Rose. Began service in 1997.
- BOSTON, PAMELA F. .... *General Counsel and Special Assistant Attorney General*  
 B.A., Bennett College; J.D., Marshall Wythe School of Law, College of William and Mary. State Licensure and Admission to Practice in Virginia since 1977. Began service in 2006.
- ELLIS, ERNEST M. .... *Internal Auditor*  
 B.S., Norfolk State University; Further study: University of District of Columbia, University of Kentucky at Lexington, University of Nebraska at Omaha; CIA (Certified Internal Auditor) and CFE (Certified Fraud Examiner). Began service in 1982.
- HORSEY, EARLIE P. .... *Executive Director, Planning and Budget*  
 B.S., Norfolk State University. Began service in 1977.
- MILLER, MARTY .... *Athletics Director/Executive Director of the Athletics Foundation of Norfolk State University, Inc.*  
 B.S., M.A., Norfolk State University. Began service in 1975.

### **Planning and Budget**

- JONES, SHELIA A. .... *Budget Director*  
 B.S., Norfolk State University. Further study: University of Kentucky. Began service in 1976.

### **Athletics**

- BEST, EMMA .... *Associate Athletics Director for Internal Operations*  
 B.S., Fort Valley State University, M.S., Indiana University (Bloomington), PhD, American University. Began service in 1999.
- COTTON, JOSEPH CRAIG .... *Associate Athletics Director and Assistant to Executive Director, Athletics Foundation*  
 B.A., North Carolina A & T State University. M.Ed., Temple University. Began service in 2001.
- SWEAT, PHYLLIS LAVERNE .... *Senior Associate Athletics Director/Senior Woman Administrator*  
 B.S., Virginia State College. M.S., Hampton Institute. Began service in 1998.
- ADRIAN, PETER .... *Head Football Coach*  
 B.S., University of West Virginia, M.S., University of Rhode Island. Began service in 2005.
- BERARD, RONDA .... *Interim Head Women's Track & Cross Country Coach*  
 B.S., University of Southwestern Louisiana. M.S., Norfolk State University. Began service in 1995.
- CLARK, CLAUDELL .... *Interim Head Baseball Coach*  
 B.S., Norfolk State University. Begin service in 2003.
- FREEMAN, DWIGHT .... *Head Men's Basketball Coach*  
 A.A., Hutchinson Community College, B.A., Western State College. Began service in 2002.
- GAINES, RODNEY .... *Strength and Conditioning Coach*  
 B.S., M.S., Ph.D. Virginia Polytechnic Institute and State University. Began service in 2003.
- GILES, KENNETH .... *Head Men's Track and Cross Country Coach*  
 B.S., University of North Florida. Began service in 1999.
- KANKEY, KARY .... *Head Women's Softball Coach*  
 B.S., University of Dayton, M.Ed., Bowling Green State University. Began service in 2005.
- MILLETTE-SPARROW, ALLISON .... *Head Women's Volleyball Coach*  
 B.S., Norfolk State University, M.S., Michigan State University. Began service in 1997.
- SWEAT, JAMES .... *Head Women's Basketball Coach*  
 B.S., Virginia State College, M.S., Hampton Institute. Began service in 1988.
- WARREN, NATHANIEL .... *Head Men's and Women's Tennis Coach*  
 B.S., M.S., Norfolk State University. Began service in 1992.
- WRIGHT-HARRISON, WILHELMENIA .... *Head Women's Bowling Coach*  
 B.S., Norfolk State University. Began service in 2005.

## OFFICE OF THE EXECUTIVE VICE PRESIDENT

### **Enrollment Management and Institutional Research**

- SASS, TERRICITA .... *Associate Vice President, Enrollment Management*  
 B.B.A., Francis Marion University; M.A., Norfolk State University. Began service in 1988.

\*As of March 2006

\*\*Department Heads



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BLAND, JAMES.....	<i>Executive Director for Enrollment Management</i>
B.S., University of Akron; M.S., Indiana University. Began service in 2005	
BARNES, MELISSA.....	<i>Associate Director for Financial Aid</i>
A.A.S., Paul D. Camp Community College, B.S. Norfolk State University, M.A., Norfolk State University. Began Service in 1981.	
BYNUM, REGINA F.....	<i>Registrar</i>
B.A., North Carolina State University; M.A., The Ohio State University. Began service in 2004.	
MARABLE, MICHELLE.....	<i>Director, Admissions</i>
B.S., Norfolk State University; M.A., The Ohio State University. Began Service in 1983	
WALKE, JAMES.....	<i>Associate Director, Institutional Research</i>
B.A., University of Virginia, M.A., The College of William & Mary, Further Study: The College of William and Mary Began service in 2004	

## **DIVISION OF ACADEMIC AFFAIRS**

### **Office of the Vice President**

BARNES, ELSIE M. ....	<i>Vice President for Academic Affairs</i>
B.S., North Carolina A&T State University; M.A.T., Indiana University of Bloomington; D.A., Lehigh University. Further Study: University of North Carolina at Chapel Hill. Began service in 1973.	
CUEVAS, NURIA M. ....	<i>Associate Vice President for Academic Affairs/Director, Institutional Effectiveness and Assessment</i>
B.S., Southwestern Union College; M.S., University of Memphis; Ph.D., Kent State University. Began service in 2000.	
JONES, DOROTHY L. R. ....	<i>Associate Vice President for Academic Affairs</i>
B.S., Albany State College; M.A., Ph.D., The Ohio State University. Harvard University, Institute for Management and Leadership. Began service in 1993.	

### **Deans**

BRAXTON, JEAN .....	<i>Dean, School of Education</i>
B.S., Bennett College; M.A., Hampton Institute; E.D., University of North Carolina at Greensboro. Began service in 1988.	
BROADUS-GAY, MARILYN .....	<i>Dean, School of Liberal Arts</i>
B.A., M.S.W., University of Kentucky; D.A., George Mason University; Bryn Mawr College Summer Institute for Women in Higher Education Administration. Began service in 1999.	
SHANE, H. MARTIN .....	<i>Dean, School of Business</i>
B.S., M.B.A., Northern Illinois University; Ph.D., University of Iowa. Began service in 2004,	
DELOATCH, SANDRA J. ....	<i>Dean, School of Science and Technology</i>
B.S., Howard University; M.S., University of Michigan; M.S., The College of William and Mary; Ph.D., Indiana University. Began service in 1972.	
FEIT, MARVIN.....	<i>Dean, School of Social Work</i>
B.S., Brooklyn College; M.S., Columbia University; Ph.D., M.Sci Hyg., University of Pittsburgh. Began service in 2000.	

### **Associate/Assistant Deans**

BYRNE, WILLIAM A. ....	<i>Assistant Dean, School of Liberal Arts</i>
B.A., M.A., Ph.D., Florida State University. Began service in 1994.	
DABNEY, DONNA W. ....	<i>Assistant Dean, School of Education</i>
B.S., Texas Woman's University; M.S., Prairie View A&M University; Ph.D., Walden University. Began service in 2003.	
KEREKES, MARGARET D. ....	<i>Assistant Dean, School of Social Work</i>
B.A., The College of William and Mary; M.S.W., Norfolk State University. Further study: Old Dominion University. Began service in 1977.	
MATTIX, LARRY .....	<i>Associate Dean, School of Science and Technology</i>
B.S., Clark College; M.S., University of Illinois; Ph.D., The College of William and Mary. Further study: American University. Began service in 1971.	
SMITH, PATRICE.....	<i>Special Assistant to the Dean, School of Science and Technology</i>
B.S., Hampton Institute; M.S., University of Maryland. Began service in 1989.	
WHALEY, GARY. ....	<i>Associate Dean, School of Business</i>
B.S., M.B.A., Miami University, Ohio; Ph.D., State University of New York, Buffalo. Began service in 1984.	

### **Directors**

ADAMS, DANNY .....	<i>Director, Center for E-Learning</i>
B.A., Marshall University; M.S., Ed.D., Northern Illinois University. Began service in 1993.	
AKOMOLAFE, OLUSUJI .....	<i>Director, Global Education</i>
B.A. University of Lagos; M.S. University of Ife; Ph.D. University of Bordeaux. Began service in 2003.	
ATKINS, DEBRA .....	<i>Acting Director, Community Outreach Services</i>
B.A., M.S.W., Norfolk State University. Began service in 1996.	

\*As of March 2006

\*\*Department Heads

- AZEKE, MERCY ..... *Executive Director, Office of First Year Experience*  
B.S., University of Nigeria; M.Ed, Ed.D., Temple University. Began service in 1999.
- BOGGER, TOMMY L. .... *Director, Archives and Special Collections and Acting Director, Library*  
B.A., Norfolk State University; M.A., Carnegie-Mellon University; Ph.D., University of Virginia. Began service in 1965.
- LAMPKIN, ANTIONETTE K. .... *Director, Freshman Seminar*  
B.S., M.S., Virginia State University; Ph.D., Virginia Polytechnic. Began Service in 1974
- LANGLEY, CURTIS TILMON ..... *Director, NSU Tri-Cities Center*  
B.A., Morehouse College; M.A., Atlanta University; Ph.D., University of Washington. Began service in 1965.
- LAWS, PAGE ..... *Director, Honors Program*  
B.A., Wellesley College; M. Phil., and Ph.D. Yale University. Began service in 1987.
- SMITH, BRENDA M. .... *Director, ACCESS*  
B.A., M.A., Norfolk State University. Began Service in 1973.
- WILSON, ROWENA G. .... *Acting Director, Graduate Studies*  
B.A. West Virginia State College; M.S.W., D.S.W Howard University. Began service 1986.
- WOODHOUSE, MICHELLE ..... *Acting Director, Virginia Beach Higher Education Center*  
B.S., Virginia Commonwealth University, M.A., Norfolk State University, Ed.D, Nova Southeastern University. Began Service in 2002.

## **DIVISION OF FINANCE AND BUSINESS**

### **Office of the Vice President**

- APPLETON, KEVIN ..... *Vice President for Finance and Business*  
B.S., Wilberforce University; Certified Public Accountant. Harvard University Institute for Educational Management; Central Association of College and University Business Officers Collegiate Management Institute. Began service in 2003.
- BOZEMAN, JOYCE E. .... *Assistant Vice President for Administration*  
B.S.W., Norfolk State University; M.P.A., Ph.D., Virginia Commonwealth University. Bryn Mawr College Summer Institute for Women in Higher Education. Began service in 2000.
- JOHNSON, RALPH ..... *Associate Vice President for Finance*  
B.S., Bradley University; M.B.A., Tulane University; Certified Public Accountant. Harvard University Institute Management Development Program. Began service in 2005.
- KASHIRI, ANTON ..... *Associate Vice President for Facilities Management*  
B.S.C., Morris Brown College; B.S., Tuskegee University. Began service in 2004.

### **Directors**

- BARRETT, KAREN ..... *Director, Physical Plant*  
B.S., Norfolk State University. Began service in 1975.
- BURT, CARL D. .... *Chief, Campus Police*  
A.A.S., Thomas Nelson Community College; B.S., Christopher Newport University; F.B.I National Academy, Quantico, Virginia; Senior Management Institute, PERF, Harvard University; Advanced Criminal Justice Education Certificate, University of Virginia; Police Executive Leadership School, University of Richmond; Leadership Institute Virginia Peninsula, Hampton; Began service in 2005.
- CANNION, ANTHONY ..... *Director, Procurement Services*  
B.A., M.P.A., University of Central Florida, Certified Professional Property Administrator. Began service in 2005.
- DAWES, THOMAS ..... *Director, Capitol Planning & Improvements*  
B.S., Norfolk State University; M.A., Central Michigan University. Began service in 1999.
- MARTIN, MICHELLE, ..... *Controller*  
B.S., Norfolk State University; Certified Public Accountant. Began service in 1997.
- ORR, CHERYL D. .... *Director, Human Resources*  
B.A., M.S.W., Rutgers University. Began service in 2003.
- WILLIAMS, DAVIDA H. .... *Director, Auxiliary Enterprises*  
B.S., Virginia State University; M.B.A., Troy State University. Began service in 1994.

## **DIVISION OF RESEARCH AND TECHNOLOGY**

### **Office of the Vice President**

- OLADIPUPO, ADEBISI ..... *Vice President for Research and Technology*  
B.S., University of Ife, Nigeria; S.M., Sc.D., Massachusetts Institute of Technology. Began service in 2000.
- MASSEY, MARGARET G. .... *Associate Vice President for Technology*  
B.S., Auburn University; M.A., M.S., Florida International University. Began service in 2003.

\*As of March 2006  
\*\*Department Heads

**Directors**

- FAIRCLOTH, HARRY L. ....Director, End User Services, Policy and Planning  
B.S., University of Tampa. Began service in 2004.
- SHAW, PAULA R. D. .... *Director, Office of Sponsored Programs*  
B.S., M.A., Norfolk State University. Began service in 1981.

**DIVISION OF STUDENT AFFAIRS****Office of the Vice President**

- CURTIS, LARRY ..... *Vice President for Student Affairs*  
B.A., University of Cincinnati; M.A., State University of New York; College of New Paltz. Began service in 1997.
- LOWE, SHARON B. .... *Assistant Vice President for Student Affairs*  
B.S., Fisk University; M.A., Columbia University; Ed.S., The College of William and Mary. Began service in 1988.
- ROBINSON, JANNIE. .... *Assistant Vice President for Student Affairs*  
B.S., M.S., Virginia Commonwealth University; Ed.D., The George Washington University. Began service in 2001.
- WILLIAMSON-ASHE, SANDRA ..... *Special Assistant to the Vice President for Student Affairs*  
B.S. University of North Carolina at Charlotte; M.S.W., Norfolk State University.  
Further Study: George Washington University. Began service 2001.

**Directors**

- FITZGERALD, FAITH ..... *Director, Residence Life and Housing*  
B.S., Benedict College. Further study: Norfolk State University and Clemson University. Began service in 1996.
- GREAVES, CURTIS ..... *Director, Counseling Center*  
B.S., The Pennsylvania State University; M.S., Ph.D., Virginia Polytechnic and State University. Began service in 2002.
- HARRIS, BEVERLY B. .... *Director, Disability Services*  
B.A., M.A., Norfolk State University. Further study: Regent University and The College of William and Mary. Began service in 1992.
- HOLMES, VALERIE ..... *Director, Student Support Services*  
B.S., Norfolk State University; M.S., Old Dominion University. Began service in 1973.
- LUGO, MARIA ..... *Director, International Student and Scholar Services*  
B.S., Virginia Polytechnic Institute and State University. M.Ed., Old Dominion University. Began service in 2001
- MONTGOMERY, NASH ..... *Director, Career Services*  
B.S., University of Maryland; M.S., Troy State University. Began service in 2005
- PERRY, TANYA ..... *Director, Upward Bound Program*  
B.S., Norfolk State University; M.A., Tuskegee University. Began service in 1995.

**DIVISION OF UNIVERSITY ADVANCEMENT****Office of the Vice President**

- SHELTON, PAUL E. .... *Vice President for University Advancement and Executive Director of NSU Foundation*  
B.A., Hiram Scott College; M.S.Ed., Syracuse University; CFRM, Indiana University Center on Philanthropy. Began service in 1999.
- ADAMS, PHILLIP D. .... *Associate Vice President of University Advancement for Development*  
B.A., Saint Leo University; M.S., Golden State University, CFRE. Began service in 2000.
- COLEMAN, CLARENCE D. .... *Associate Vice President of Advancement Services*  
B.S., M.S., Southern University; D.Ed., Pennsylvania State University.  
Further study: University of Notre Dame; Michigan State University; CFRM, Indiana University Center on Philanthropy.  
Began service in 1971.
- HAVRILESKY, CATHERINE L. .... *NSUF Fiscal Officer and University Advancement Budget Manager*  
B.S., Old Dominion University. Began service in 2002.
- SQUARE-WILLIAMS, CRYSTAL D. .... *Special Assistant to the Vice President for University Advancement*  
B.S., Old Dominion University. Began service in 2003.

**Directors**

- COKER, JOYCE ..... *General Manager, L. D. Wilder Performing Arts Center*  
B.A., Norfolk State University. Began service in 1987
- COOPER, SHEELA R. .... *Director of Development Services*  
B.S., MBA, Virginia Tech. Began service in 2001.
- HOGGARD, SHARON R. .... *Director of News and Media Relations*  
B.A., Old Dominion University; M.A., Norfolk State University. Began service in 2000.
- KUNTZ, BRENDA L. .... *Development Officer*  
B.S., Slippery Rock University; M.S., California State University-East Bay. Began service in 2005.

\*As of March 2006

\*\*Department Heads

MOORE, LAVERNE.....	<i>Annual Giving Officer</i>
B.S., Norfolk State University. Began service in 1987.	
PACE, LAVORIS A.....	<i>Director of Marketing Services</i>
B.A., Norfolk State University. Began service in 2001.	
RENCE, MARIS.....	<i>Technical Director, Wilder Center</i>
B.A., Cleveland State University; M.F.A., Tulane University. Began service in 1997.	
RICKS, VICTORIA A. ....	<i>Development Officer</i>
B.A., Hampton University. Began service in 2003.	
WALTON, KIMBERLY S.....	<i>Director of Alumni Relations</i>
B.S., Virginia State University; M.P.A., University of Akron. Began service in 2000.	
WATTS, DAVID B.....	<i>Director of Event Planning</i>
A.A.S., Virginia Western College; B.S., Old Dominion University. Began service in 2001.	

## FACULTY

### PROFESSORS

ABATENA, HAILU .....	<i>Social Work</i>
M.S.W., Tata Institute of Social Services; M.A., Ph.D., Syracuse University. Began service in 1997.	
ABBASI, SAMI M. ....	<i>Management, Marketing and Entrepreneurship</i>
B.S., M.B.A., Middle Tennessee State University; D.B.A., Mississippi State University. Began service in 1992.	
ADAMS, DANNY .....	<i>Interdisciplinary Studies</i>
B.A., Marshall University; M.S., Ed.D., Northern Illinois University. Began service in 1993.	
AGYEI, WILLIAM, K.A. ....	<i>Sociology</i>
B.A., California State University; M.A., Loma Linda University, Johns Hopkins University; Ph.D., University of Maryland. Began service in 1995.	
AKOMOLAFE, OLUSUJI .....	<i>Political Science</i>
B.A., University of Lagos; M.S., University of Ife; Ph.D., University of Bordeaux. Began service in 2003	
ALEXANDER, WILLIAM H. ....	<i>History</i>
B.A., Fisk University; M.A., Ph.D., Stanford University. Began Service in 1987.	
BAKER, HOLLIE.....	<i>Mathematics</i>
B.S., Norfolk State University; M.S.T., Illinois Institute of Technology; Ed.D., University of Virginia. Further study: University of North Carolina at Chapel Hill. Began service in 1970.	
BANATTE, JEAN M. ....	<i>Accountancy, Finance and Information Management</i>
B.A., Biscayne; M.S., University of Miami; Ph.D., University of Missouri. Certified Public Accountant. Began service in 1983.	
BARNES, ELSIE M.....	<i>Political Science</i>
B.S., North Carolina A & T State University; M.A.T., Indiana University at Bloomington; D.A., Lehigh University. Further Study: University of North Carolina at Chapel Hill. Began Service in 1973.	
BLACK, SUELY .....	<i>Chemistry</i>
B.S., M.Sc., Rio de Janeiro Federal University Brazil; M.Ph., Ph.D., Columbia University. Began service in 1996.	
BOGGER, TOMMY L. ....	<i>History and Geography</i>
B.A., Norfolk State University; M.A., Carnegie-Mellon; Ph.D., University of Virginia. Began Service in 1969.	
**BONNER, CARL E. ....	<i>Chemistry</i>
B.S., M.S., Howard University; Ph.D., University of Rochester. Began service in 1995.	
BOWMAN, ARTHUR W. ....	<i>Biology</i>
B.S., M.A., Hampton Institute; Ph.D., North Carolina State University. Began service in 2004.	
BRAXTON, JEAN B. ....	<i>Health, Physical Education and Exercise Science</i>
B.S., Bennett College; M.A., Hampton Institute; Ed.D., University of North Carolina at Greensboro. Began service in 1988.	
BROADUS-GAY, MARILYN .....	<i>Interdisciplinary Studies</i>
B.A., M.S.W., University of Kentucky; D.A., George Mason University; Further Study: Bryn Mawr College Summer Institute for Women in Higher Education Administration. Began service in 1999.	
**BROWN, ERNEST.....	<i>Music</i>
B.A., University of Maryland; M.Mus., Peabody Conservatory of Music of Johns Hopkins University; D.M.A., University of Maryland. Began service in 1973.	
BRUMAGE, NORMA WRIGHT.....	<i>Secondary Education &amp; School Leadership</i>
B.S., Winston-Salem State University; M.A., Virginia Polytechnic Institute and State University; Ed.S., Ed.D., The George Washington University. Began service in 1997.	

\*As of March 2006

\*\*Department Heads

- BYRNE, WILLIAM A. .... *History*  
B.A., M.A., Ph.D., Florida State University. Began service in 1994.
- \*\*CARON-SHEPPARD, JUDI A. .... *Sociology*  
B.S., Arizona State University; M.A., Ph.D., The Ohio State University. Began service in 1976.
- \*\*CHEN, JIM. .... *Accountancy, Finance and Information Management*  
B.S., National Chunghsing University; M.B.A. West Texas State; Ph.D., North Texas State University
- COLEMAN, ANTIONETTE ..... *Social Work*  
B.A., University of Maryland-Eastern Shore; M.S.W., Ph.D., University of Maryland-Baltimore. Began service in 1992.
- COLEMAN, CLARENCE D. .... *Physics*  
B.S., M.S., Southern University; D.Ed., Pennsylvania State University. Further study: University of Houston; Michigan State University. Began service in 1971.
- COOLEY, JOY. .... *Psychology*  
B.A., University of Virginia; M.S., Virginia State University; Psy.D., The Virginia Consortium Program in Clinical Psychology. Began service in 1989.
- DAMTEW, DESTA. .... *Accountancy, Finance and Information Management*  
B.A., Haile Selassie I University; M.B.A., University of Wisconsin; Ph.D., New York University, Certified Fraud Examiner. Began service in 1984.
- DANCY, JOSEPH JR. .... *Social Work*  
B.A., Virginia Union University; Th.M., Princeton Theology and Seminary; Ph.D., University of Michigan. Began service in 1984.
- DANDRIDGE, RITA B. .... *English and Foreign Languages*  
B.A., Virginia Union University; M.A., Ph.D. Howard University. Began service in 1974.
- DELOATCH, SANDRA J. .... *Computer Science*  
B.S., Howard University; M.S., University of Michigan; M.S., The College of William and Mary, Ph.D., Indiana University. Began service in 1972.
- \*\*DOGBE, S.KORSI. .... *Interdisciplinary Studies*  
B.A., University of Ghana; M.A., M.Sc., Ph.D., University of Southern California. Began service in 1995.
- DUNCAN, HOWARD ..... *Biology*  
A.B., M.A., Hampton Institute; Ph.D., University of North Carolina at Chapel Hill. Began service in 1984.
- EULE, EDWARD E. .... *Sociology*  
B.A., M.A., Ph.D., Howard University. Began service in 1992.
- FEIT, MARVIN ..... *Social Work*  
B.S., Brooklyn College; M.S., Columbia University; Ph.D., M.Sci Hyg, University of Pittsburgh. Began service in 2000.
- \*\*FULLER, MILDRED KEELS ..... *Allied Health*  
B.S., North Carolina Central University; Certification in Medical Technology, Cambridge Hospital School of Medical Technology, Massachusetts; M.Ed., Tuskegee University; Ph.D., Old Dominion University. Began service in 1987.
- GRIFFIN, VESTA ..... *Music*  
B.M., Peabody Conservatory, John Hopkins University; M.A., Morgan State University; Ph.D., New York University; further study: Johns Hopkins University. Began service in 1975.
- HARRIS, WELDON B. .... *Military Science (Army ROTC)*  
B.S., Howard University, M.A., Central Michigan University. Began service in 2004
- \*\*HARRISON, GEORGE C. .... *Computer Science*  
B.A., Wilkes College; M.S., Old Dominion University; Ph.D., University of Virginia. Began service in 1973.
- HAYWOOD, CARL WHEATLEY. .... *Music*  
B.S., Norfolk State University; M.M., M.S.M., Southern Methodist University; D.M.A., University of Southern California. Began service in 1975.
- HICKS, KENNETH W. .... *Chemistry*  
B.S., M.S., Miami University; Ph.D., Howard University. Further study: University of California at San Diego. Began service in 1994
- HOGAN, GUY T. .... *Mathematics*  
B.A., Talladega College; M.S., University of Chicago; Ph.D., The Ohio State University. Began service in 1992.
- HOLMES, BERNADETTE J. .... *Sociology*  
B.A., Norfolk State University; M.A., Ph.D., The Ohio State University. Began service in 2002.
- HOWELL, JAMES W. .... *English and Foreign Languages*  
B.A., M.A., Howard University; Ph.D., New York University. Further Study: Old Dominion University. Began service in 1960.
- HUBBARD, HAROLD ..... *Political Science*  
B.A., Hampton Institute. M.A., Virginia Commonwealth University; Ph.D., University of North Carolina at Chapel Hill. Began service in 1984.
- IBRAHIM, ADEM H. .... *Engineering*  
M.S., Royal Institute of Technology, Stockholm, Sweden; Ph.D., Old Dominion University. Began service in 1997.

\*As of March 2006

\*\*Department Heads

JACOBS, JAMES ALLEN .....	Technology
B.A., Adams State College; M.Ed., The College of William and Mary; Ed.D. Nova University. Began service in 1971.	
JOHNSON, EMOGENE .....	Health, Physical Education and Exercise Science
B.S., Norfolk State University; M.S., University of Tennessee; Ph.D., University of Maryland. Began service in 1973	
JOHNSON, MARJORIE SCOTT .....	Music
B.Mus., Edu., Howard University; M.Mus., Ph.D., The Catholic University of America. Began service in 1970.	
JONES, DOROTHY L.R. ....	Accountancy, Finance and Information Management
B.S., Albany State College; M.A. and Ph.D., The Ohio State University. Began service in 1993.	
JONES, RONALD .....	Allied Health
B.S., M.A., Northern Illinois University; Ph.D., University of Cincinnati. Began service in 1996.	
**JONES, SEAN L. ....	Engineering
B.S., Clemson University; M.S., Ph.D., University of Florida. Began service in 2004.	
JORDAN, LAWRENCE .....	Fine Arts
B.S., M.Ed., Ph.D., Pennsylvania State University. Began service in 1994.	
KANNARKAT, JOY PAPPACHGAN .....	Psychology
B.A., University of Karaa; M.A., Ph.D., Howard University. Began service in 1975.	
KIAH, ROSALIE .....	English and Foreign Languages
B.S., Virginia State University; Ed. M., Temple University; Ph.D., Michigan State University. Further Study: Michigan State University. Began service in 1970.	
KIMBLE, MARY .....	Secondary Education and School Leadership
B.S., New York University; M.A., New York University; Ed.D., University of Bridgeport. Began service in 1990.	
KISSMAN, KRIS .....	Social Work
B.S., Wichita State University; M.S.W., The University of Kansas; Ph.D., University of Texas at Arlington, School of Social Work. Began service in 1999.	
KHAN, MUSHTAQ A .....	Mathematics
M.S., University of Punjab; M.S., University of Pakistan; Ph.D., Old Dominion University. Began service in 1987.	
LANGLEY, CURTIS T. ....	Urban Affairs, Sociology
B.A., Morehouse College, Atlanta University; Ph.D., University of Washington. Began service in 1965.	
LAWS, PAGE .....	English and Foreign Languages
B.A., Wellesley College; M. Phil., Ph.D., Yale University. Began service in 1987.	
LITTLETON, DENISE .....	Early Childhood/Elementary Education
B.A., Carnegie-Mellon University; M.Ed., University of Pittsburgh; Ed.D., The George Washington University. Began service in 1974.	
LOUTTS, GEORGE .....	Physics
B.S., M.S., Moscow Institute of Fine Chemical Technology, Russia; Ph.D., General Physics Institute, Russia. Further study: Center for Research and Education in Optics and Lasers, University of Central Florida. Began service in 1993.	
MACLIN, ARLENE .....	Engineering
B.S., North Carolina A&T State University; M.S., University of Virginia; Ph.D., Howard University. Began service in 2002.	
MAJUMDAR, DEBABRATA .....	Biology
B.Sc., M.Sc., Ph.D., University of Calcutta India. Began service in 1993.	
MAPP, JOHNNIE A. ....	Accountancy, Finance and Information Management
B.S., University of Wyoming; M.B.A., Jackson State University; Ph.D., University of Georgia; Certified Fraud Examiner, Certified Government Financial Manager. Began service in 1983.	
**MARSHALL, BENNIE L. ....	Nursing
B.S.N., Medical College of Virginia, Virginia Commonwealth University; M.S., Hampton University; Ed.D., The College of William and Mary. Began service 2003.	
MATTIX, LARRY .....	Physics
B.S., Clark College; M.S., University of Illinois; Ph.D., The College of William and Mary. Further study: American University. Began service in 1971.	
MEAD, PATRICIA .....	Engineering
B.S., Old Dominion University; M.S., Polytechnic University; Ph.D., University of Maryland	
MESHESHA, ABERRA .....	Political Science
B.S., Boston State College; M.P.A., Howard University; Ph.D., New York University. Began service in 1994.	
MEYERS, CAROLYN W. ....	Engineering
B.S., Howard University; M.S., Ph.D., Georgia Institute of Technology Certificate, Institute for Educational Management, Harvard University. Began service in 2006.	
MILLER, FLOYD E., JR. ....	Physics
B.S., St. Paul's College; M.Ed., D.Ed., Pennsylvania State University. Further study: American University; Columbia University. Began service in 1964.	
**MILLER, SHEILA D. ....	Social Work
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\*As of March 2006

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MITCHELL, LUCIAS T. ....	<i>Health, Physical Education and Exercise Science</i>
B.S., Jackson State University; M.A., Indiana University. Began service in 1978.	
MOHANTY, BIDHU B. ....	<i>Accountancy, Finance and Information Management</i>
B.Tech., Indian Institute of Technology; M.S., Ph.D., Case Western Reserve University. Began service in 1992.	
MOOSAVIZADEH, SHAROOZ ....	<i>Mathematics</i>
B.S., M.S., Ph.D., Old Dominion University. Began service in 1992.	
MOREA, RACHELLE ....	<i>English and Foreign Languages</i>
B.A., M.A., Queens College; Ed.D., University of Miami (Coral Gables, FL). Began service 1974.	
MORRIS, CAROLE V. ....	<i>Special Education</i>
B.S., Elizabeth City State University; M.S., Antioch College; Ph.D., University of Miami, Florida. Began service in 1972.	
MURRAY, CLARENCE ....	<i>English and Foreign Languages</i>
B.A., M.A., Texas Technical University; Ph.D., Bowling Green State University. Began service in 1992.	
MCCLAIN, ALIECIA R. ....	<i>Chemistry</i>
B.S., Benedict College; M.S., Clark-Atlanta University; Ph.D., University of California-Davis. Began service in 2004.	
MCDEMMOND, MARIE, V. ....	<i>Secondary Education and School Leadership</i>
B.A. Xavier University; M.Ed. University of New Orleans; Ed.D. University of Massachusetts at Amherst; Began service in 1997.	
MCGOWEN, CARL ....	<i>Accountancy, Finance and Information Management</i>
Ph.D., Michigan State University. Began service in 2005.	
MCNEIL, PHILLIP E. ....	<i>Mathematics</i>
B.A., Ohio University; M.S., Ph.D., Pennsylvania State University. Began service in 1973.	
**MCSWAIN, ARLETHA J. ....	<i>Early Childhood Education</i>
B.S., M. Ed., Lincoln University, Jefferson City; Ph.D., University of Missouri. Began service in 2001.	
OKAFOOKEREAFOEZEKE, NONSO. ....	<i>Sociology</i>
LL.B., University of Nigeria; B. L. Nigerian Law School; M. A. University of Detroit; Ph. D. Indiana University of Pennsylvania. Began service in 2003.	
OKALA, CHINEDU ....	<i>Fine Arts</i>
D. I. M. T., H. N. D. I. M. T., Institute of Management and Technology, Enugu, Nigeria; M. F. A., Howard University. Began service in 1992.	
OKOLI, EMEKA ....	<i>Mass Communications and Journalism</i>
HND, Harrow College (England) of Higher Education; M.A., Regent University; Ph.D., Howard University. Began service 1993.	
OKONKWO, AUGUSTINE. ....	<i>Biology</i>
B.A., William Jewell College; B.S., M.S., Kansas State College; M.S., University of Illinois; Ph.D., Michigan State University; Post Doctoral Study, University of Michigan. Began service in 1974.	
**OKPODU, CAMELLIA M. ....	<i>Biology</i>
B.S., Ph.D., North Carolina State University; Post Doctorate Fellow, Virginia Tech. Began service in 2003.	
OLADIPUPO, ADEBISI. ....	<i>Engineering</i>
B.S., University of Ife, Nigeria; S.M., Sc.D., Massachusetts Institute of Technology. Began service in 2000.	
PANIGRAHI, BHAGABAN. ....	<i>Management, Marketing and Entrepreneurship</i>
B.Com., M.Com., LL.B., Utkal University, M.B.A., Ph.D., North Texas State University. Began service in 1986.	
PARSON, WILLAR WHITE. ....	<i>Nursing</i>
A.S., Norfolk State University; B.S., M.A., M.S., Hampton Institute; Ph.D., Old Dominion University. Began service in 1975.	
PENDLETON, JESSE L. S. ....	<i>History</i>
B.S., Central State College; M.S., Ph.D., Clark University. Began Service in 1959.	
**PERKINS, ANNIE S. ....	<i>English and Foreign Languages</i>
B.A., Norfolk State University; M.A., Old Dominion University; Ph.D., Howard University. Began service in 1972.	
PUNJABI, VINA ....	<i>Physics</i>
B.S., University of Gujarat; M.S., Ph.D., The College of William and Mary. Began service in 1988.	
RAKHIMOV, RAKHIM. ....	<i>Chemistry</i>
B.S., Moscow Institute of Physics and Technology; M.S., Moscow Institute of Physics and Technology; Ph.D., Institute of Chemical Physics, Moscow; Dr. S, Institute of Chemical Physics, Moscow. Began service in 1996.	
RAVENELL, PATRICIA B. ....	<i>Biology</i>
B.S., Bennett College; M.S., Wayne State University; Ph.D., Old Dominion University/Eastern Virginia Medical School. Began service in 1974.	
ROBINSON, DELANYARD. ....	<i>Psychology</i>
B.S., Tuskegee Institute; M.A., St. Mary's university; M.S., Ph.D., Rutgers University. Began service in 1984.	
ROSENMAN, JOHN B. ....	<i>English and Foreign Languages</i>
B.A., Hiram College; M.A., Ph.D., Kent State University. Began service in 1982.	
ROSS-HAMMOND, AMELIA ....	<i>Music</i>
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\*As of March 2006

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- \*\*ROWE, H. ALAN**..... *Chemistry*  
B.S., University of North Carolina; Ph.D., North Carolina State University. Further study: Bowman Gray School of Medicine.  
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- SAGALDO, CARLOS**..... *Physics*  
M.S., Ph.D., Michigan State University. Began service in 1994.
- SAWYER, MARTHA BRACEY**..... *Social Work*  
B.S., Norfolk State University; M.S.W., Catholic University; D.S.W., Howard University. Further study: Mt. Zion Hospital and Medical Center.  
Began service 1976.
- SHAH, SHANTILAL N.**..... *Computer Science*  
B.Sc., M.Sc., University of Baroda, India; M.S., The College of William and Mary; Ph.D., Syracuse University. Began service in 1986.
- SHANE, H. MARTIN**..... *Management, Marketing and Entrepreneurship*  
B.S., Northern Illinois University; M.B.A., Northern Illinois University; Ph.D., University of Iowa. Began service in 2004.
- SIRJANI, MOJTABA**..... *Mathematics*  
B.S., Old Dominion University; M.S., North Carolina State University; Ph.D., Old Dominion University. Began service in 1994.
- SITES, ROBERT**..... *Fine Arts*  
B. F. A., University of Kansas; M. F. A., Cranbrook Academy of Art. Further study Syracuse University. Began service in 1976.
- SONG, KYO D.**..... *Engineering*  
B.S., Inha University; M.S., Hampton University; Ph.D., University of Nebraska. Began service in 1993.
- SPURLIN, JOHN H.**..... *Technology*  
Ph.D., M.S.E.E., M.Ed., Wayne State University; B.S.E.E., Cooks Institute. Began service in 2004.
- SUN, SAM-SHAJING**..... *Chemistry*  
B.S., Peking University; M.S., California State University at Northridge; Ph.D., University of Southern California. Began service in 1998.
- THOMAS, ERWIN K.**..... *Mass Communications and Journalism*  
B.S., University of Oregon; M.S., Brooklyn College; Ph.D., University of Missouri. Began service in 1981.
- THOMAS, RONALD E.**..... *Psychology*  
B.A., Lake Forest College; M.A., Ph.D., Boston University. Began service in 1981.
- TICKTON, STANLEY DAVID**..... *Mass Communications and Journalism*  
B.A., Wayne State University; M.A., University of Wisconsin; Ph.D., University of Michigan. Began service in 1974.
- TOMPKINS, CHRISTOPHER**..... *Fine Arts*  
B.S., M.F.A., Louisiana State University. Further study: Pratt Institute. Began service in 1977.
- \*\*TUCKER, DELANO**..... *Health, Physical Education and Exercise Science*  
B.S., Virginia State University; M.A., Ed.D., The George Washington University; Began service in 2000.
- WALL, CURTISS E.**..... *Mathematics*  
B.S., Alma College; M.A.T., Ph.D., Michigan State University. Began service in 1991.
- WALTON, LOUISE M.**..... *Social Work*  
B.A., Virginia State College; M.S.W., Virginia Commonwealth University; Ph.D., University of Virginia. Began service in 1986.
- WHALEY, GARY**..... *Management, Marketing and Entrepreneurship*  
B.S., M.B.A., Miami University, Ohio; Ph.D., State University of New York, Buffalo. Began service in 1984.
- WILSON, ROWENA**..... *Social Work*  
B.A., West Virginia State College; M.S.W., D.S.W., Howard University. Began service in 1986.
- \*\*WILSON, RUDOLPH**..... *Political Science*  
B.A., Howard University; M.A., Political Science, SUNY, Binghamton; Ph.D., Political Science, Atlanta University. Began service in 1986.
- WRIGHT, OTHA**..... *Social Work*  
B.S., Tennessee State University; M.S.W., University of Tennessee; Ed. D, University of Virginia. Began service in 1971.
- ZEMEDKUN, WOLD**..... *Accountancy, Finance and Information Management*  
B.S., Haile Sellassie I. University; M.A., Williams College; Ph.D., University of Cincinnati. Began service in 1986.

## ASSOCIATE PROFESSORS

- AGIRI, BABATUNDE**..... *History*  
B.A., University of London; M.A., University of Ibadan; Ph.D., University of Wisconsin. Began Service in 1997.
- AFTAB, AHMAD**..... *Computer Science*  
B.S., The University of Engineering and Technology, Lahore; M.S., D.Sc., George Washington University. Began service in 2003.
- AIRD, STEVEN D.**..... *Biology*  
B.S., Montana State University; M.S., Northern Arizona State University; Ph.D., Colorado State University. Began service in 2002.
- \*\*BANKS, CARRAY**..... *Technology*  
B.S., Elizabeth City State University; M.S., Ball State University; Ph.D., Pennsylvania State University. Began service in 1991.

\*As of March 2006

\*\*Department Heads



BASAPPA, PRATHAP .....	<i>Engineering</i>
B.S., University of Mysore; M.S., Indian Institute of Science; Ph.D., Indian Institute of Science. Began service in 1999.	
BELHADJALI, MONCEF .....	<i>Accountancy, Finance and Information Management</i>
B.S., University of Tunis; M.A., Ph.D., The Wharton School, University of Pennsylvania. Began service in 1989.	
BENNETT, GLADYS M. ....	<i>Psychology</i>
B.A., M.S., DePaul University; Ph.D., University of New Mexico. Began service in 1994.	
BRIGGS, PAULA CLARK .....	<i>Mass Communications and Journalism</i>
B.A., Hampton University; M.A., University of Missouri-Columbia; Ph.D., Howard University. Began service in 1986.	
**BROCKINGTON, WANDA G. ....	<i>Mass Communications and Journalism</i>
B.A., M.A., North Carolina Central University; Ph.D., Howard University. Further study: University of Arizona. Began service in 1979.	
BROWN, CHARLOTTE A. ....	<i>Health, Physical Education and Exercise Science</i>
B.S., University of Tennessee; M.S., University of North Florida. Further study at Old Dominion University. Began Service in 1978.	
BROWN, JAMES P. ....	<i>History</i>
B.A., Illinois Wesleyan University; M.A., Indiana University. Further Study: Mexico City College; Illinois State University; U.C.L.A. Began Service in 1968.	
BROWN, ROGERS N. ....	<i>Music</i>
B.A., Louisiana Tech University; M.M., University of Michigan. Began service in 1980.	
BRYANT-SHANKLIN, MONA .....	<i>Early Childhood/Elementary Education</i>
B.S., North Carolina Central University; M.S., Kansas State University; Ph.D., University of North Carolina at Chapel Hill. Began Service in 1997.	
**BYRD, MELENDEZ O. ....	<i>Secondary Education and School Leadership</i>
B.S., M.A., Ph.D., Virginia Tech. Began service in 2002.	
COAN, BOYD .....	<i>Mathematics</i>
B.S., State University of New York at Brockport; M.S., Syracuse University; Ph.D., University of North Carolina at Chapel Hill. Began service in 1999.	
**COLSON, DARLENE G. ....	<i>Psychology</i>
B.A., M.A., Case Western Reserve University; Ph.D., University of North Carolina at Chapel Hill. Began service in 1980.	
DABNEY, DONNA W. ....	<i>Secondary Education and School Leadership</i>
B.S., Texas Woman's University; M.S., Prairie View A&M University; Ph.D., Walden University. Began service in 2003.	
DANEK, ROBERT .....	<i>English and Foreign Languages</i>
B.A., Stanford University; M.L.S., University of Oklahoma; Ph.D., Indiana University. Began service in 1999.	
DONDETI, VENKATESWARA R. ....	<i>Accountancy, Finance and Information Management</i>
B.S., Regional Eng College (India); M.S., Ph.D., Case Western University. Began service in 1989.	
DORSEY, SAM .....	<i>Music</i>
B.M., University of North Carolina, Greensboro; M.M., Virginia Commonwealth University; Ph.D., The Catholic University of America. Began service in 1984.	
EARL, ARCHIE W., SR. ....	<i>Mathematics</i>
B.S., Norfolk State University; M.A., Hampton University; Ed.D., The College of William and Mary. Began service in 1991.	
**EDMUNDS, PAULETTE .....	<i>Management, Marketing and Entrepreneurship</i>
B.S., Howard University; M.B.A., Kent State University; Ph.D., Kent State University. Began service in 1996.	
**FERGUSON, MILTON WINSTON .....	<i>Physics</i>
B.S., Norfolk State University; M.S., Purdue University. Further study: Purdue University; University of Michigan. Began service in 1965.	
**FORD, CHARLES H. ....	<i>History</i>
B.A., University of Pittsburgh; M.A., Ph.D., Vanderbilt University. Began Service in 1992.	
GOLEMBIEWSKI, WALTER .....	<i>Technology</i>
B.S.E.E., Gannon University; M.S., Pennsylvania State University; Ed.D., University of Pittsburg. Began service in 1996.	
GRAHAM, JONATHAN, JR. ....	<i>Computer Science</i>
B.S., University of Wisconsin; M.S., Jackson State University. Ph.D. University of Idaho. Further study: The College of William and Mary. Began service in 1984.	
HALL, JOSEPH .....	<i>Chemistry</i>
B.S., Roanoke College; M.S., Old Dominion University; Ph.D., Kent State University. Began service in 1997.	
**HARRIS, JUNE L. ....	<i>Special Education</i>
B.S., North Carolina Central University; M.A., Atlanta University; Ph.D., University of Maryland, College Park. Further Study: Johns Hopkins University; University of Alabama; Loyola College. Began service in 2003	
HARVEY, JOYCE B. ....	<i>Allied Health</i>
B.S., Christian Brothers College; B.S., University of Tennessee; M.S., Norfolk State University; Ph.D., Old Dominion University. Began service in 1981.	
HOLMES, GWENDOLYN V. ....	<i>Health, Physical Education and Exercise Science</i>
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\*As of March 2006

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B.S., National Tsing Hua University; M.S., Ph.D., Northwestern University. Began service in 2002.	
HUMPHRIES, THORNA .....	<i>Computer Science</i>
B.S., Bennett College; M.S. Massachusetts Institute of Technology; Ph.D., University of Colorado. Began service in 2005.	
HUNT, CHARLES RAY .....	<i>Technology</i>
B.S., Jackson State College; M.A., Ball State University; C.A.S., Northern Illinois University. Further study: Virginia State University; Old Dominion University. Began service in 1970.	
JENKS, NELSON GARY .....	<i>Fine Arts</i>
B. F. A., Ohio State University; M.A., University of Northern Iowa; Further study Xavier University and Illinois State University. Began service in 1992.	
JONES, NORMA GRAY .....	<i>Social Work</i>
B.S., Bennett College; M.S.W., West Virginia University; Ph.D., Norfolk State University. Began service 2005.	
**KEEVE, MICHAEL O .....	<i>Mathematics</i>
B.A., Hampton University; M.S., University of Virginia; Ph.D., Georgia Institute of Technology. Began service in 1987.	
KHANDAKER, MAHBUB A .....	<i>Physics</i>
B.A., Brandeis University; M.S., Ph.D., University of Washington. Began service in 1995.	
KNIGHT, MARGARET D. ....	<i>Secondary Education and School Leadership</i>
B.S., Virginia State University; Ed.S., Ed. D., The George Washington University. Began service in 2002.	
MARTIN, MATILDA J. ....	<i>Early Childhood/Elementary Education</i>
B.S., Fayetteville State University; M.S., Kansas State; Ph.D., University of Florida. Began service in 1973.	
MITCHELL, DIANE .....	<i>Army ROTC</i>
B.S., Saint Joseph's University; M.B.A., Eastern University. Began service in 2004.	
NEWBY-ALEXANDER, CASSANDRA .....	<i>History</i>
B.A., University of Virginia; M.A., Old Dominion University; Ph.D., The College of William and Mary. Began Service in 1992.	
NOGINOV, MIKHAIL A. ....	<i>Physics</i>
M.S., Moscow Institute for Physics and Technology; P.D., General Physics Institute of the USSR. Further Study: Old Dominion University. Began service in 1997.	
NWEKE, ANTHONY .....	<i>Chemistry</i>
B.S., University of Benin, Nigeria; Ph.D., University of Maryland, College Park. Began service in 1988.	
PACE, WILLIAM H., JR. ....	<i>English and Foreign Languages</i>
B.A., Rollins College; M.A., University of North Carolina at Chapel Hill; Ph.D., University of Arkansas. Further study; American University; Western Carolina University. Began service in 1973.	
PARR, DARYL .....	<i>Social Work</i>
B.A., State University of New York at Geneseo; M.S.W., University of Georgia; Ph.D., University of Maryland. Began service 2005.	
MILLS-PARKER, GLENDOLA .....	<i>Health, Physical Education and Exercise Science</i>
B.S. East Stroudsburg University; M.Ed. Temple University; Ed.D. Temple University Began service in 2004.	
PARKER, WILLIAM H., JR .....	<i>Mathematics</i>
B.S., St. Paul's College; M.S., Old Dominion University; M. Div., Virginia Union University; Ed.D., Virginia Polytechnic and State University. Began service in 1992.	
PRETLOW, CAROL J. ....	<i>Political Science</i>
B.A., Fisk University; M.A., Norfolk State University; J.D., Washington College of Law at American University; LL.M., American University. Began service in 1995	
RANSOM, HARRISON LEROY .....	<i>Physics</i>
B.A., Virginia State University; M.A., Boston University. Further study: American University; Boston University. Began service in 1958.	
RENCE, MARIS .....	<i>English and Foreign Languages</i>
B.A., Cleveland State University; M.F.A., Tulane University. Began service in 1997.	
SANFORD, O'NEIL .....	<i>Music</i>
B.S., Southern University; M.Med., VanderCook College of Music. Began service in 1998.	
SAWYER-WATSON, BERNICE .....	<i>Allied Health</i>
B.A., Fisk University; M.B.A., University of Miami. Began service in 1979.	
SHEEN, JEENSON .....	<i>Technology</i>
B.S., Tamkang University, Taiwan; M.S., Ph.D., Old Dominion University. Began service in 1997.	
SMITH, GREGORY .....	<i>Mathematics</i>
B.S., Norfolk State University; M.S., Hampton University; Ph.D., Howard University. Began service in 1994.	
SOCOLOVSKY, EDUARDO A. ....	<i>Mathematics</i>
B.S., M.S., University of Buenos Aires; Ph.D., Carnegie-Melon University. Began service in 2002.	
VERMA, RENUKA .....	<i>Mathematics</i>
B.S., M.S., B.Ed., Utkai University; Ph.D., Indian Institute of Technology. Began service in 2002.	

\*As of March 2006

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WARD, SHELIA.....	<i>Health, Physical Education and Exercise Science</i>
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ADAMS, PAUL .....	<i>Music</i>
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ANDERSON, WANELLE J. ....	<i>English and Foreign Languages</i>
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XU, KAIPING.....	Biology
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\*As of March 2006

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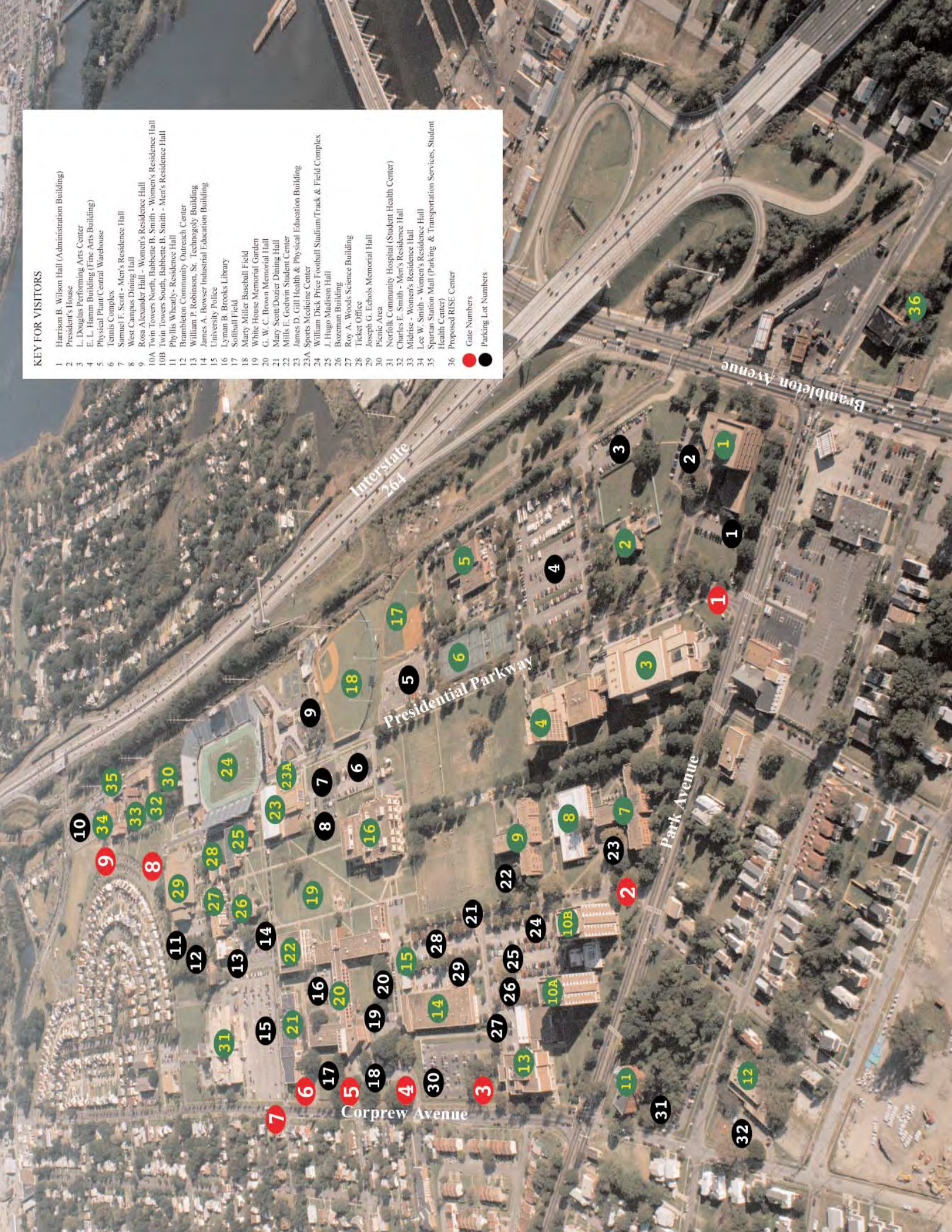
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# KEY FOR VISITORS

- 1 Harrison B. Wilson Hall (Administration Building)
- 2 President's House
- 3 L. Douglas Performing Arts Center
- 4 E. L. Hamm Building (Fine Arts Building)
- 5 Physical Plant/Central Warehouse
- 6 Tennis Complex
- 7 Samuel F. Scott - Men's Residence Hall
- 8 West Campus Dining Hall
- 9 Rosa Alexander Hall - Women's Residence Hall
- 10A Twin Towers North, Babbette B. Smith - Women's Residence Hall
- 10B Twin Towers South, Babbette B. Smith - Men's Residence Hall
- 11 Phyllis Wheatley - Residence Hall
- 12 Brambleton Community Outreach Center
- 13 William P. Robinson, Sr. Technology Building
- 14 James A. Rowser Industrial Education Building
- 15 University Police
- 16 Lyman B. Brooks Library
- 17 Softball Field
- 18 Mary Miller Baseball Field
- 19 White House Memorial Garden
- 20 G. W. C. Brown Memorial Hall
- 21 Mary Scott/Dozier Dining Hall
- 22 Mills E. Godwin Student Center
- 23 James D. Gill Health & Physical Education Building
- 23A Sports Medicine Center
- 24 William Dick Price Football Stadium/Track & Field Complex
- 25 J. Hugo Madison Hall
- 26 Bozeman Building
- 27 Roy A. Woods Science Building
- 28 Ticket Office
- 29 Joseph G. Echols Memorial Hall
- 30 Picnic Area
- 31 Norfolk Community Hospital (Student Health Center)
- 32 Charles F. Smith - Men's Residence Hall
- 33 Malrice - Women's Residence Hall
- 34 Lee W. Smith - Women's Residence Hall
- 35 Spartan Station Mall (Parking & Transportation Services, Student Health Center)
- 36 Proposed RISE Center

- Gate Numbers
- Parking Lot Numbers







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