

NORFOLK STATE UNIVERSITY



UNDERGRADUATE
CATALOG
2014-2016

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<http://www.nsu.edu/catalog/UndergraduateCatalog.html>

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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 specified 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 readmission.
- 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 to 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.

This document is subject to change. Current university policies are located on the university's web site at <http://www.nsu.edu/policies/>. Please refer to this website for policy updates and policies and procedures not addressed in the University Catalog.

This document is intended to adhere to all statutory regulations, State Council of Higher Education for Virginia (SCHEV) guidelines, and other official documents and pronouncements of the Commonwealth of Virginia and the Norfolk State University Board of Visitors.

The current version, as amended, is posted on the University's website.

Norfolk State University is committed to the policy that all persons will have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

ACADEMIC CALENDARS

FALL SEMESTER 2013

State of the University Address/Faculty/Staff/School/Department Meetings, Faculty Information Workshops	Monday, August 12
Freshman Convocation.....	Tuesday, August 13
Departmental Counseling and Registration	Thursday, August 13 – Saturday, August 17
Classes Begin.....	Saturday, August 17
Late Registration Begins.....	Monday, August 19
Deadline to Drop a Course and Receive 100% Refund.....	Wednesday, August 21
Deadline for Late Registration/Adding Courses or Declaring Audit.....	Wednesday, August 21
Deadline to Drop a Course and Receive 50% Refund.....	Tuesday, August 27
Labor Day Holiday (No Classes).....	Monday, September 2
Mid-Semester Advisory Examination Period.....	Monday, September 30 - Saturday, October 5
Deadline to Apply for December 2013 Graduation.....	Friday, September 13
Mid-Semester Advisory Examination Period.....	Monday, September 30 - Saturday, October 5
Mini-Term 2 (Classes Begin).....	Saturday, October 5
Deadline to Report Mid-Semester Advisory Grades.....	Tuesday, October 8
Mini-Term 2 Deadline for Late Registration/Adding Courses or Declaring Audit.....	Wednesday, October 9
Deadline to Drop a Course.....	Friday, October 11
Fall Break.....	Monday, October 14 – Tuesday, October 15
Registration for Spring 2013 -14 Semester begins.....	Monday, October 21 – Saturday, January 11
Reading Day (No Classes).....	Wednesday, November 27
Thanksgiving Break.....	Thursday, November 28 – Sunday, December 1
Classes Resume.....	Monday, December 2
Classes End..... (Last Day to Withdraw from the University without Academic Penalty)	Friday, December 6
Final Examination Period.....	Saturday, December 7 – Friday, December 13
COMMENCEMENT.....	Saturday, December 14
Deadline to Report Final Grades.....	Tuesday, December 17

SPRING SEMESTER 2014

Faculty/Staff/School/Department Meeting, Faculty Information Workshops.....	Monday, January 6
Departmental Counseling and Registration.....	Tuesday, January 7 – Saturday, January 11
Classes Begin.....	Saturday, January 11
Late Registration Begins.....	Saturday, January 13
Deadline to Drop a Course and Receive 100% Refund.....	Wednesday, January 17
Deadline for Late Registration/Adding Courses or Declaring Audit.....	Wednesday, January 17
Martin Luther King Jr. Holiday (No Classes).....	Monday, January 20
Deadline to Drop a Course and Receive 50% Refund.....	Tuesday, January 21
Deadline to Apply for May 2014 Graduation.....	Friday, January 24
Mid-Semester Advisory Examination Period.....	Monday, February 24 – Saturday, March 1
Mini-Term 2 (Classes begin).....	Saturday, March 1
Registration for Summer and Fall 2014 Semester.....	Monday, March 3 – Friday, August 29
Mini-Term 2 Deadline for Late Registration/Adding Courses or Declaring Audit.....	Wednesday, March 5
SPRING BREAK FOR STUDENTS.....	Monday, March 10 – Sunday, March 16
Deadline to Report Mid-Semester Advisory Grades.....	Tuesday, March 11
Deadline to Drop a Course.....	Friday, March 21
Classes End..... (Last Day to Withdraw from the University)	Friday, May 2
Registration for Summer 2014 and Fall 2014 Semester.....	Monday, March 24 – Friday, August 29
Deadline to Apply for May 2014 Graduation.....	Friday, January 24
Final Examination Period.....	Saturday, May 3 – Friday, May 9
COMMENCEMENT.....	Saturday, May 10
Deadline to Report Final Grades.....	Tuesday, May 13
Faculty Development Workshop.....	Wednesday, May 14 – Thursday, May 15
The Registrar, Financial Aid, and Student Accounts Offices will be located in the New Student Center, Room 370 beginning Thursday, January 9 through Wednesday, January 15 for registration. Hours of operation will be 8:00 a.m. until 6:00 p.m. Saturday, January 11 hours of operation will be 9:00 a.m. until 1:00 p.m.	

Summer Sessions 2014

TERM A | MAY 19 – JUNE 27, 2014 (6 WEEK TERM)

Registration.....	Monday, March 24 – Saturday, May 17
Classes Begin/Late Registration.....	Monday, May 19
Deadline to Drop a Course and Receive 100% Refund.....	Thursday, May 22
Deadline for Late Registration/Adding Courses or Declaring Audit.....	Friday, May 23
Memorial Day Holiday (No Classes).....	Monday, May 26
Last Day to Drop a Course and Receive 50% Refund.....	Tuesday, May 27
Deadline to Drop a Course.....	Tuesday, June 10
Classes End..... (Last Day to Withdraw from the University without Academic Penalty)	Thursday, June 26
Final Examination Period.....	Friday, June 27
Deadline to Report Final Grades.....	Tuesday, July 1

TERM B | JUNE 28 – JULY 25, 2014 (4 WEEK TERM)

Registration.....	Monday, March 24 – Friday, June 27
Classes Begin/Late Registration.....	Saturday, June 28
Deadline to Drop a Course and Receive 100% Refund.....	Wednesday, July 2
Deadline for Late Registration/Adding Courses or Declaring Audit.....	Thursday, July 3
Independence Day Holiday (No Classes).....	Friday, July 4
Last Day to Drop a Course and Receive 50% Refund.....	Monday, July 7
Last Day to Drop a Course.....	Monday, July 14
Classes End..... (Last Day to Withdraw from the University without Academic Penalty)	Thursday, July 24
Final Examination Period.....	Friday, July 25
Last Day to Report Final Grades.....	Tuesday, July 29

FALL SEMESTER 2014

Faculty/Staff/School/Department Meeting, Faculty Information Workshops.....	Monday, August 18
Department Counseling and Registration.....	Tuesday, August 19 – Friday, August 22
Classes Begin/Late Registration.....	Saturday, August 23
Last Day to Drop a Course and Receive 100% Refund.....	Friday, August 29
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Friday, August 29
Labor Day Holiday (No Classes).....	Monday, September 1
Fall Convocation.....	Thursday, September 18
Mid-Semester Advisory Examination Period.....	Monday, October 6 – Saturday, October 11
Mini-Term 2 (Classes begin).....	Saturday, October 11
Last Day to Report Mid-Semester Advisory Grades.....	Tuesday, October 14
Last Day to Drop a Course.....	Friday, October 17
Examination of Writing Competency.....	Saturday, October 25
Registration for Spring 2015 begins.....	Monday, October 27 – Friday, January 9
Last Day to Apply for December 2014 Graduation.....	Friday, September 12
Reading Day.....	Wednesday, November 26
Thanksgiving Break.....	Thursday, November 27 – Sunday, November 30
Classes Resume.....	Monday, December 1
Classes End (Last Day to Withdraw from the University)	Friday, December 5
Final Examination Period.....	Saturday, December 6 – Friday, December 12
Last Day to Report Final Grades..... Candidates for December 2014 Graduation	Tuesday, December 9
COMMENCEMENT.....	Saturday, December 13
Last Day to Report Final Grades.....	Tuesday, December 16

The Registrar, Financial Aid, and Student Accounts Offices will be located in the New Student Center, Room 370 beginning Thursday, August 15 through Wednesday, August 21 for registration. Hours of operation will be 8:00 a.m. until 6:00 p.m. Saturday August 17 hours of operation will be 9:00 a.m. until 1:00 p.m.

Spring Semester 2015

Faculty/Staff/School/Department Meeting, Faculty Information Workshops.....	Monday, January 5
Department Counseling and Registration.....	Tuesday, January 6 – Friday, January 9
Classes Begin/Late Registration.....	Saturday, January 10
Last Day to Drop a Course and Receive 100% Refund.....	Friday, January 16
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Friday, January 16
Martin Luther King Jr. Holiday (No Classes).....	Monday, January 19
Last Day to Drop a Course and Receive 50% Refund.....	Thursday, January 22
Mid-Semester Advisory Examination Period.....	Monday, February 23 – Saturday, February 28
Mini-Term 2 (Classes begin).....	Saturday, February 28
SPRING BREAK FOR STUDENTS.....	Monday, March 9 – Sunday, March 15
Last Day to Report Mid-Semester Advisory Grades.....	Tuesday, March 10
Last Day to Drop a Course.....	Friday, March 20
Examination of Writing Competency.....	Saturday, March 21
Registration for Summer 2015 and Fall 2015 Semester.....	Monday, March 23 – Friday, August 28
Last Day to Apply for May 2015 Graduation.....	Friday, January 30
Classes End (Last Day to Withdraw from the University)	Friday, April 24
Final Examination Period.....	Saturday, April 25 – Friday, May 1
Last Day to Report Final Grades.....	Tuesday, May 5
Candidates for May 2014 Graduation	
COMMENCEMENT.....	Saturday, May 9
Faculty Conference.....	Monday, May 11
Last Day to Report Final Grades.....	Tuesday, May 12

Summer Sessions 2015

MINI-TERM A | MAY 18 – JUNE 26 (6 WEEK TERM)

Registration.....Monday, March 23 – Friday, June 26

Classes Begin/Late Registration.....Monday, May 18

Last Day to Drop a Course and Receive 100% Refund.....Thursday, May 21

Last Day for Late Registration/Adding Courses or Declaring Audit.....Friday, May 22

Memorial Day Holiday (No Classes).....Monday, May 25

Last Day to Drop a Course and Receive 50% Refund.....Tuesday, May 26

Last Day to Drop a Course.....Tuesday, June 9

Classes End.....Thursday, June 25
(Last Day to Withdraw from the University without Academic Penalty)

Final Examination Period.....Friday, June 26

Last Day to Report Final Grades.....Tuesday, June 30

MINI-TERM B | JUNE 29 – JULY 24 (4 WEEK TERM)

Registration.....Monday, March 23 – Friday, June 26

Classes Begin/Late Registration.....Monday, June 29

Last Day to Drop a Course and Receive 100% Refund.....Wednesday, July 1

Last Day for Late Registration/Adding Courses or Declaring Audit.....Thursday, July 2

Independence Day Holiday (No Classes).....Friday, July 3

Last Day to Drop a Course and Receive 50% Refund.....Tuesday, July 7

Last Day to Drop a Course.....Tuesday, July 14

Classes End.....Thursday, July 23
(Last Day to Withdraw from the University without Academic Penalty)

Final Examination Period.....Friday, July 24

Last Day to Report Final Grades.....Tuesday, July 28

Fall Semester 2015

Faculty/Staff/School/Department Meeting, Faculty Information Workshops.....	Monday, August 17
Department Counseling and Registration.....	Tuesday, August 18 – Friday, August 21
Classes Begin/Late Registration.....	Saturday, August 22
Last Day to Drop a Course and Receive 100% Refund.....	Friday, August 28
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Friday, August 28
Labor Day Holiday (No Classes).....	Monday, September 7
Fall Convocation.....	Thursday, September 17
Mid-Semester Advisory Examination Period.....	Monday, October 5 – Saturday, October 10
Mini-Term 2 (Classes begin).....	Saturday, October 10
Last Day to Report Mid-Semester Advisory Grades.....	Tuesday, October 13
Last Day to Drop a Course.....	Friday, October 16
Examination of Writing Competency.....	Saturday, October 24
Registration for Spring 2016 begins.....	Monday, October 26 – Friday, January 8
Last Day to Apply for December 2015 Graduation.....	Friday, September 11
Reading Day.....	Wednesday, November 25
Thanksgiving Break.....	Thursday, November 26 – Sunday, November 29
Classes Resume.....	Monday November 30
Classes End (Last Day to Withdraw from the University)	Friday, December 4
Final Examination Period.....	Saturday, December 5 – Friday, December 11
Last Day to Report Final Grades..... Candidates for December 2015 Graduation	Tuesday,, December 8
COMMENCEMENT.....	Saturday, December 12
Last Day to Report Final Grades.....	Tuesday, December 15

Spring Semester 2016

Faculty/Staff/School/Department Meeting, Faculty Information Workshops.....	Monday, January 4
Department Counseling and Registration.....	Tuesday, January 5 – Friday, January 8
Classes Begin/Late Registration.....	Saturday, January 9
Last Day to Drop a Course and Receive 100% Refund.....	Friday, January 15
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Friday, January 15
Martin Luther King Jr. Holiday (No Classes).....	Monday, January 18
Last Day to Drop a Course and Receive 50% Refund.....	Thursday, January 21
Mid-Semester Advisory Examination Period.....	Monday, February 22 – Saturday, February 27
Mini-Term 2 (Classes begin).....	Saturday, February 27
SPRING BREAK FOR STUDENTS.....	Monday, March 7 – Sunday, March 13
Last Day to Report Mid-Semester Advisory Grades.....	Tuesday, March 8
Last Day to Drop a Course.....	Friday, March 18
Examination of Writing Competency.....	Saturday, March 19
Registration for Summer 2016 and Fall 2016 Semester.....	Monday, March 21 – Friday, August 26
Last Day to Apply for May 2016 Graduation.....	Friday, January 19
Classes End (Last Day to Withdraw from the University)	Friday, April 29
Final Examination Period.....	Saturday, April 30 – Friday, May 6
Last Day to Report Final Grades..... Candidates for May 2016 Graduation	Tuesday, May 3
COMMENCEMENT.....	Saturday, May 7
Faculty Conference.....	Monday, May 9
Last Day to Report Final Grades.....	Tuesday, May 10

OFFICIAL UNIVERSITY CALENDARS, WHICH INCORPORATE MODIFICATIONS AS NEEDED, MAY BE ACCESSED AT WWW.NSU.EDU/ACADEMICCALENDAR. THE CATALOG IS AVAILABLE AT ONLINE AT WWW.NSU.EDU/Catalog.

Summer Sessions 2016

MINI-TERM A | MAY 16 – JUNE 24 (6 WEEK TERM)

Registration.....	Monday, March 21 – Friday, May 13
Classes Begin/Late Registration.....	Monday, May 16
Last Day to Drop a Course and Receive 100% Refund.....	Thursday, May 19
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Friday, May 20
Memorial Day Holiday (No Classes).....	Monday, May 30
Last Day to Drop a Course and Receive 50% Refund.....	Tuesday, May 31
Last Day to Drop a Course.....	Tuesday, June 7
Classes End..... (Last Day to Withdraw from the University without Academic Penalty)	Thursday, June 23
Final Examination Period.....	Friday, June 24
Last Day to Report Final Grades.....	Tuesday, June 28

MINI-TERM B | JUNE 27 – JULY 22 (4 WEEK TERM)

Registration.....	Monday, March 21 – Friday, June 24
Classes Begin/Late Registration.....	Monday, June 27
Last Day to Drop a Course and Receive 100% Refund.....	Wednesday, June 29
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Thursday, June 30
Independence Day Holiday (No Classes).....	Monday, July 4
Last Day to Drop a Course and Receive 50% Refund.....	Tuesday, July 5
Last Day to Drop a Course.....	Tuesday, July 12
Classes End..... (Last Day to Withdraw from the University without Academic Penalty)	Thursday, July 21
Final Examination Period.....	Friday, July 22
Last Day to Report Final Grades.....	Tuesday, July 26

Fall Semester 2016

Faculty/Staff/School/Department Meeting, Faculty Information Workshops.....	Monday, August 15
Department Counseling and Registration.....	Tuesday, August 16 – Friday, August 19
Classes Begin/Late Registration.....	Saturday, August 20
Last Day to Drop a Course and Receive 100% Refund.....	Friday, August 26
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Friday, August 26
Labor Day Holiday (No Classes).....	Monday, September 5
Fall Convocation.....	Thursday, September 15
Mid-Semester Advisory Examination Period.....	Monday, October 3 – Saturday, October 8
Mini-Term 2 (Classes begin).....	Saturday, October 8
Last Day to Report Mid-Semester Advisory Grades.....	Tuesday, October 11
Last Day to Drop a Course.....	Friday, October 14
Examination of Writing Competency.....	Saturday, October 22
Registration for Spring 2017 begins.....	Monday, October 24 – Friday, January 6
Last Day to Apply for December 2016 Graduation.....	Friday, September 16
Reading Day.....	Wednesday, November 23
Thanksgiving Break.....	Thursday, November 24– Sunday, November 27
Classes Resume.....	Monday, November 28
Classes End (Last Day to Withdraw from the University)	Friday, December 2
Final Examination Period.....	Saturday, December 3 – Friday, December 9
Last Day to Report Final Grades..... Candidates for December 2016 Graduation	Tuesday, December 6
COMMENCEMENT.....	Saturday, December 10
Last Day to Report Final Grades.....	Tuesday, December 13

Spring Semester 2017

Faculty/Staff/School/Department Meeting, Faculty Information Workshops.....	Monday, January 2
Department Counseling and Registration.....	Tuesday, January 3 – Friday, January 6
Classes Begin/Late Registration.....	Saturday, January 7
Last Day to Drop a Course and Receive 100% Refund.....	Friday, January 13
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Friday, January 13
Martin Luther King Jr. Holiday (No Classes).....	Monday, January 16
Last Day to Drop a Course and Receive 50% Refund.....	Thursday, January 19
Mid-Semester Advisory Examination Period.....	Monday, February 20 – Saturday, February 25
Mini-Term 2 (Classes begin).....	Saturday, February 25
SPRING BREAK FOR STUDENTS.....	Monday, March 6 – Sunday, March 12
Last Day to Report Mid-Semester Advisory Grades.....	Tuesday, March 7
Last Day to Drop a Course.....	Friday, March 17
Examination of Writing Competency.....	Saturday, March 18
Registration for Summer 2017 and Fall 2017 Semester.....	Monday, March 20 – Friday, August 25
Last Day to Apply for May 2017 Graduation.....	Friday, January 27
Classes End (Last Day to Withdraw from the University)	Friday, April 21
Final Examination Period.....	Saturday, April 22 – Friday, April 28
Last Day to Report Final Grades..... Candidates for May 2018 Graduation	Tuesday, May 2
COMMENCEMENT.....	Saturday, May 6
Faculty Conference.....	Monday, May 8
Last Day to Report Final Grades.....	Tuesday, May 16

Summer Sessions 2017

MINI-TERM A | MAY 15 – JUNE 23 (6 WEEK TERM)

Registration.....	Monday, March 27 – Friday, May 12
Classes Begin/Late Registration.....	Monday, May 15
Last Day to Drop a Course and Receive 100% Refund.....	Thursday, May 18
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Friday, May 19
Memorial Day Holiday (No Classes).....	Monday, May 29
Last Day to Drop a Course and Receive 50% Refund.....	Tuesday, May 31
Last Day to Drop a Course.....	Tuesday, June 6
Classes End..... (Last Day to Withdraw from the University without Academic Penalty)	Thursday, June 22
Final Examination Period.....	Friday, June 23
Last Day to Report Final Grades.....	Tuesday, June 27

MINI-TERM B | JUNE 26 – JULY 28 (4 WEEK TERM)

Registration.....	Monday, March 28 – Friday, June 23
Classes Begin/Late Registration.....	Monday, June 26
Last Day to Drop a Course and Receive 100% Refund.....	Wednesday, June 28
Last Day for Late Registration/Adding Courses or Declaring Audit.....	Thursday, June 29
Independence Day Holiday (No Classes).....	Tuesday, July 4
Last Day to Drop a Course and Receive 50% Refund.....	Tuesday, July 11
Last Day to Drop a Course.....	Friday, July 14
Classes End..... (Last Day to Withdraw from the University without Academic Penalty)	Thursday, July 27
Final Examination Period.....	Friday, July 28
Last Day to Report Final Grades.....	Tuesday, August 1

WELCOME FROM THE PRESIDENT



Office of the President
700 Park Avenue, Suite 520, Norfolk, Virginia 23504
Tel: (757) 823-8670 Fax: (757) 823-2342
Web: www.nsu.edu

Dear Student:

Welcome to your home-away-from-home at Norfolk State University! As your Interim President and CEO, I value the opportunity to serve at this distinguished institution and work with you as an active member of the Spartan family.

Norfolk State University provides a unique learning and living environment that supports your academic and personal development and success. While your educational journey may be challenging at times, having a supportive, nurturing structure in place dedicated to your personal and academic needs can make a difference.

Our mission at Norfolk State University is to transform lives and communities by empowering individuals to maximize their potential and become lifelong learners. Through exemplary teaching, scholarship and community engagement, the faculty and staff of the University are dedicated to helping our students develop into leaders and productive global citizens.

This catalog will assist you with planning and monitoring your academic progress. It outlines the many degree programs, academic support and professional development programs, and policies and procedures you will need to become a fully informed student citizen at Norfolk State University. Take some time to become familiar with its contents.

I also encourage you to strive to reach your academic goal of receiving your degree in four (4) years and to take advantage of the valuable resources available to you as a student. Be assured that you will obtain a quality education at Norfolk State University. Remember to always give back to your school and also to *Behold the Green and Gold!*

Forging onward,

Eddie N. Moore, Jr.
Interim President and CEO



Norfolk State University - Equal Opportunity Employer

BOARD OF VISITORS

Norfolk State University BOARD OF VISITORS 2014-15



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Rector



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COL (Ret) - *Secretary*



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Michael D. Rochelle,
LTG (Ret)



Dr. Melvin T. Stith

WELCOME TO NORFOLK STATE 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 expression 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.

OUR MISSION

Through exemplary teaching, scholarship, and outreach Norfolk State University transforms lives and communities by empowering individuals to maximize their potential, creating life-long learners equipped to be engaged leaders and productive citizens.

Vision Statement: Norfolk State University will be recognized nationally for its outstanding academic programs, innovative research, scholarship, and global outreach, advancing the transformative power of education to change lives and communities.

Core Values: Norfolk State University's strength lies in its value system. These core values: academic excellence, student-centered focus, diversity, integrity and collegiality, and engagement, embody the principles, ideals, and beliefs of our students, faculty, staff, and Board of Visitors. They form the foundation for our actions and reflect what is important to us as members of the Norfolk State University community.

INSTITUTIONAL GOALS

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

- 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.
- The University shall continue to utilize its assembled expertise in research and public service to develop programs specifically related to urban needs.
- The University shall continue to develop its management capability in order to provide adequate, efficient, and timely services to its constituents.
- The University shall continue to maintain an environment which encourages its graduates to assume leadership roles in the community, state, nation, and world.

ACCREDITATIONS AND AFFILIATIONS

Regional Accreditation

Norfolk State University is accredited by the Commission on Colleges (COC) of the Southern Association of Colleges and Schools (SACS) to award the associate, baccalaureate, master's and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call (404) 679-4500 for questions about the accreditation of Norfolk State University.

SPECIALIZED ACCREDITATIONS

ACCREDITING AGENCY AND DISCIPLINE

Engineering Accreditation Commission (EAC) of ABET Electrical and Electronics Engineering (BS)

1. Optical Engineering (BS)

Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

2. Journalism (BA)

3. Mass Communications (BS)

American Chemical Society (ACS)

4. Chemistry (BS)

Academy of Nutrition and Dietetics, Accreditation Council for Education in Nutrition and Dietetics

5. Food Science and Nutrition (BS)

American Psychological Association

6. Clinical Psychology (Ph.D.)

Association to Advance Collegiate Schools of Business (AACSB)

7. Accounting (BS)

8. Business (BS) in Management Information Systems

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

9. Physical Education/Exercise Science (BS)

Computing Accreditation Commission of ABET

10. Computer Science (BS)

11. Information Technology (BS)

Council on Social Work Education (CSWE)

12. Social Work (B.S.W.)

13. Social Work (M.S.W.)

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

14. Medical Technology (BS)

The Association of Technology, Management and Applied Engineering (ATMAE)

15. Building Construction Technology (BS)

16. Computer Technology (BS)

17. Electronic Technology (BS)

National Association of Schools of Art and Design (NASAD)

18. Visual Studies (MA/MFA)

National Association of Schools of Music (NASM)

19. Music Education (B.Mus.)

20. Music (M.Mus.)

National Council for Accreditation of Teacher Education (NCATE)

21. Art Education (BS Art)

22. Art Education (MAT)

23. Biology Education (BS Biology)

24. Biology Education (MAT)

25. Chemistry Education (BS Chemistry)

26. Chemistry Education (MAT)

27. Early Childhood/Elementary Education (BS Interdisciplinary Studies or Psychology)

28. Early Childhood/Elementary Education (MAT)

29. English Education (BS English)

30. English Education (MAT)

31. Health and Physical Education (BS)

32. History Education (BS History)

33. History Education (MAT)

34. Mathematics Education (BS Mathematics)

35. Mathematics Education (MAT)

36. Pre-Elementary Education/Early Childhood Special Education (MA)

37. Special Education (BS Interdisciplinary Studies or Psychology)

38. Special Education (MA)

39. Urban Education (MA): School Counseling, Principal Preparation, and Curriculum Development and Supervision

Accreditation Commission for Education in Nursing, Inc. (ACEN)

40. Nursing (BS)

AFFILIATIONS

MEMBERSHIP AFFILIATION

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 Colleges for Teacher Education
The Virginia Association of Teacher Educators
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 and Council
of Graduate Schools
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
Cluster Program
College Placement Council
Conference of Southern Graduate Schools
Council for Advancement and Support of Education
Council of Historically Black Graduate Schools
Council on Social Work Education
Intercollegiate Music Association
Mid Atlantic Association for School, College and University
Staffing and Group for the Advancement of Doctorial
Education
National Alliance of Business College/Industry Relations
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 Region II, ALAW
Southern Regional Education Board
Virginia Association of Allied Health
Virginia Association of College Nursing
Virginia Council of Graduate Schools
Virginia Public Health Association

CAMPUS LIBRARY

Dean of Library Services
Lyman Beecher Brooks Library
(757) 823-2418

The Lyman Beecher Brooks Library provides services and resources to meet the scholarly and informational needs of the Norfolk State University community. Students and faculty can access online resources, including the library catalog, electronic full-text journals, and e-books, either remotely or via any campus computer. The Reference Research area in the library not only provides research assistance, but also provides access to additional computer workstations, which students can use for research needs. The 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. The Herbert A. Marshall Collection is also located in the Library. It is a special collection of approximately ten thousand (10,000) items pertaining to African-American history, folklore and culture.

CAMPUS ARCHIVES

Harrison B. Wilson Archives

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

The African Art Gallery

The art gallery houses a collection of African art from 14 countries representing 40 groups and cultures. Included in the gallery is a reference library that features over 400 books on African art, culture, and history.



ADMINISTRATIVE OFFICES

The administrative offices help the university carry out its mission efficiently and effectively. The University is organized into 5 divisions: Office of the Provost, Finance and Business, Research and Economic Development, Student Affairs, and University Advancement. Each division is led by a vice president who is responsible for implementing programs and services that are essential for the management of the University.

OFFICE OF THE PROVOST

Dr. Sandra J. DeLoatch, Provost and Vice President for Academic Affairs
(757) 823-8408

The Office of the Provost at Norfolk State University bears leadership responsibility for the academic focus of the institution. The Office 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 Office is made up of two colleges, three professional schools, an off-campus center, and academic support programs. The colleges are the College of Liberal Arts and the College of Science, Engineering, and Technology. The schools are the School of Business, the School of Education, and the Ethelyn R. Strong School of Social Work. Thirty bachelor's degree programs, two associate degree programs, sixteen master's degree programs, and three doctoral degree programs are offered through these schools. Continuing Norfolk State University's tradition of service, the Office of the Provost promotes and encourages community involvement. The Office of the Provost provides a variety of programs and opportunities in which the students, faculty, and staff may demonstrate altruistic spirit.

The goal of student success guides all academic policies and processes. The Office of the Provost 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 Office of the Provost works in concert with the faculty to ensure that the curriculum supports the University's mission and strategic imperatives.

To that end, the Provost has developed the following goals:

Enhance the Collegial Environment – identify correct Rules of Engagement

Enrollment Growth in Quality and Quantity – increase student enrollment from 6,000 to 9,000 with improved quality during 2008-2013

Improve freshman to sophomore retention rate by at least 15% and Six-year; and increase Graduation Rate from 31% to 60%

Implement Teacher/Scholar Model for the faculty – improve sponsored research and NSU role in economic development

Implement Performance Based Management Model - ensure accountability at all levels

The implementation plan for these goals including targeted initiatives, action steps and resource needs, are available in the Office of the Provost, Suite 460, Harrison B. Wilson Hall (757) 823-8408. Programs under the Office of the Provost include, but not limited to, the programs/services which follow.

COOPERATIVE EDUCATION/ INTERNSHIP PROGRAM

Cooperative Education at Norfolk State University is a 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 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:

COURSE	CREDIT HOURS
CED 250	1
CED 350	3
CED 450	3

Interested students may request information from the following address:

Norfolk State University
Career Services
 Cooperative Education Program
 Student Services Center, Suite 318
 Norfolk, Virginia 23504
 (757) 823-8462

THE HONORS COLLEGE

Dr. Page Laws, Dean
(757) 823-8208

The Honors College 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. The Honors College currently has three component programs: the Dozoretz National Institute for Mathematics and Applied Sciences; the Parsons General Honors Program for all majors; plus ten Discipline-Specific Honors Programs.

The DNIMAS program is unique. 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 four week pre-matriculation summer session, intensive science curricula, research internships, field trips, projects, career counseling, seminars, and a peer mentor-tutoring program. Please see the separate DNIMAS catalogue entry for admissions requirements.

Students may apply for the Parsons General Honors Program of the Honors College upon admission as freshmen having achieved a high school grade-point average of at least 3.0 and a combined score of 1450 or more on the SAT (Math + Verbal + Writing). If the Writing score is omitted, the Math plus Verbal scores must equal 1000. An ACT score of 21 or more is also acceptable. These students must complete an entire Honors sequence of courses (30 hours out of the 120 normally required for graduation). NSU sophomores or rising juniors, having achieved a 3.0 or above grade-point average for all courses completed, may also apply to enter the Honors College with the goal of completing 30 hours of Honors courses, to include at least one capstone Honors Seminar (GST 345 H or GST 445 H). Transfers entering NSU with an academic associate's degree may complete an Honors College special diploma by completing 18 hours of Honors courses, including the Honors Seminar (GST 345 H or GST 445 H). All students in Honors courses are part of the NSU

Honors College and participate in Honors College activities.

The Discipline-Specific Honors Programs, available in a growing number of departments, are intended for students strongly committed to their majors. Students take 18 hours of Honors courses in General Education, and then 12 hours of Honors courses in their major, to include the Honors capstone course designated for that discipline.

The NSU Honors College is not an honor society but a regular facet of the University's academic offerings. Honors College students are encouraged to participate in honor societies in their respective fields. Honors College courses are open to all full-time undergraduates, including participants in other special programs such as ROTC.

Transfer Honors credits from an accredited college or university with an Honors College of its own may be substituted for no more than 9 hours of the required 18 hours, or 15 hours of the required 30. For Parsons General Honors students, no substitution credit can be accepted for the Honors Seminar requirement. Classes designated for DNIMAS scholars within the NSU curriculum may be substituted at the discretion of the Director of DNIMAS.

In order to graduate with an Honors College special diploma, a student must meet the following criteria:

1. Parsons and DSHP students must maintain a cumulative G.P.A. of at least 3.0. DNIMAS students must maintain at least a 3.2.
2. With the exception of transfer students with an academic associate's degree, students, depending on their respective tracks, must complete at least 30 credit hours of Honors courses including at least one of the Honors Seminars (for Parsons students), a DSHP capstone course, or a DNIMAS-approved capstone course.
3. Transfer students Transfer students with academic associate's degrees must complete at least 18 hours of Honors courses, including the Honors capstones designated for their respective tracks.
4. All students must earn a grade of C or above for each Honors course and a G.P.A. of at least 3.0 for all Honors courses taken (3.2 for DNIMAS students).

For additional information, please contact the Dean of the Honors College at (757) 823-8208.

PARSONS PRESIDENTIAL AND PARSONS VICE 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 College.
- 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 G.P.A. of at least 3.0 for all Honors courses.
- A cumulative G.P.A. 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 College 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 G.P.A. 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 G.P.A. 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.

For additional information, please contact the Director of the Honors College at (757) 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.

Graduate and undergraduate students are eligible to participate in the Exchange Program. For degree purposes, credits earned will be considered resident credit 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 a cumulative grade point average of 2.00 or better. The approval of the school dean is required.

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.

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

VIRGINIA TIDEWATER CONSORTIUM CROSS REGISTRATION PROGRAM

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 at (757) 823-8229.

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.

OFFICE OF INFORMATION TECHNOLOGY (OIT)

(757) 823-8678 – Help Desk

The Office of Information Technology (OIT) manages the administrative and academic information technology resources for Norfolk State University. OIT provides ubiquitous access to technology over a highly secured wired and wireless CISCO-based network,

utilizing a gigabit fiber optic backbone for voice, video, data, and security. A port-per-pillow, computer labs, and wireless access are provided in all the residence halls.

The Enterprise Information Systems (EIS) administrative computing unit includes the Student Information System (Datatel/Colleague), the Financial Administration System (IFAS), and university web development. SpartanShield is a Datatel web-based tool for online registration, grades, unofficial transcripts, financial aid information, and online payments.

OIT also works closely with the Office of eLearning and the Division of Financial Services on Blackboard's course management and dining and vending systems.

NSU's state-of-the-art Data Center houses over 100 enterprise-wide servers and a supercomputing Internet2 environment managed through a high-end Networking Operations and Security Center. The new Virtualization and Collaboration Center provides an environment conducive for onsite and remote collaborations, visualization, and training in support of a wide variety of opportunities.

E-mail is provided through a Microsoft Exchange Enterprise Email System.

Television/video/multimedia technology specialists provide on-site event coverage and production support to meet both institutional and instructional needs of the University. The Telecommunications Unit is responsible for all telecommunication services on campus, including cellular and desk phones. The development of a Supercomputing environment using Internet2 in the new McDemmond Center provides NSU with the latest cutting edge technology for research.

Faculty and Staff receive IFAS, Colleague, technical, and applications software training through the OIT Training unit. Since flexibility is a key consideration, various types of training are offered including: general classroom, departmental, one-to-one, and online tutorials.

Faculty, students, and staff of Norfolk State University must comply with all University, Office of Information Technology (OIT), and school/department policies and procedures relating to the use of technological resources operated for administrative, academic/instructional, and research purposes. Current University and OIT policies are found at the following websites: <http://www.nsu.edu/policies/> and <http://www.nsu.edu/oit/policies/>.

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 the college curriculum. During classes and field training, students 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, students 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.

OFF-CAMPUS CENTER

Virginia Beach Higher Education Center (VBHEC)
1881 University Drive
Virginia Beach, Virginia 23453
(757) 368-4150

Dennis Montgomery, J.D.
Director
dlmontgomery@nsu.edu

The mission of NSU programs and services at the 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, VBHEC strives to develop and disseminate educational programming, training programs, and selected technological information to its adult constituents outside the traditional credit delivery formats.

The Virginia Beach Higher Education Center, operated cooperatively by Norfolk State University and Old Dominion University, offers graduate-level courses for Norfolk State University in criminal justice, secondary education, urban education (counseling), and social work. Undergraduate courses and a number of continuing education (non-credit) 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 goal of the Center is to strengthen the skills of the adult learner through educational opportunities in workforce development, leadership, competitive education programs, continuing education, and business and community partnerships.

SCHOOL OF EXTENDED LEARNING

Dr. Dorothy L. R. Jones, Dean

(757) 368-2320

Website: www.nsu.edu/SEL

Email: sel@nsu.edu

Norfolk State University's School of Extended Learning (SEL) works with the academic and administrative units of the University. It offers coursework through online, blended and video conferencing.

The Office of Distance Education

Housed in the School of Extended Learning is the Office of Distance Education. This Office of Distance Education provides coordination and support services to Norfolk State University's educational divisions to comprehensively infuse technology across the curriculum utilizing electronic learning initiatives which include distance learning, blended learning, and face-to-face instructional technology. This office is also responsible for certifying faculty as online instructors as well as providing Blackboard instructional training for faculty and students alike.

Virginia Beach Higher Education Center

The School of Extended learning is located at the VBHEC. The Center focuses on meeting the needs of non-traditional students and offers weekend and evening courses. Also located the VBHEC is the Reclamation Project, Military Education Programs, and the Criminal Justice Master's degree program. Other credit classes taught at VBHEC include—Interdisciplinary Studies, Urban Education, History, Nursing, Business, English, Psychology and Social Work. Courses are offered using a variety of modalities including, but not limited to, face to face, online, and videoconferencing. Non-credit continuing education certificate courses and programs are offered year round. The VBHEC is also used for special events such as the Annual Women's Conference. Community groups, school systems, and government agencies also host various events at this location.

Spartan Prep Academy

Spartan Prep Academy is a college awareness program to introduce Virginia Beach City Public School students to the many advantages of continuing their education beyond high school and to the specific programs available at Norfolk State University (NSU). This partnership between Norfolk State University at the Virginia Beach High Education Center (VBHEC) and Virginia Beach City Public Schools is designed to increase the enrollment of minority students from Virginia Beach City Public Schools in post-secondary institutions. The goal of this initiative is to introduce students from Virginia Beach City Public Schools to careers and educational opportunities available at NSU. The vision of Spartan Prep is to help adolescents by offering exposure to the academic experience, the taking care of "college business" experience, and the "college life" experience.

Office of Military Programs

Military Friendly School

NSU is ranked within the top 20% of Military Friendly Schools/Colleges across the United States for the third year in a row. NSU was able to accomplish this goal based on a number of factors that include military affiliated students being able to access financial aid programs, active duty military able to use military tuition assistance, and support of education benefits for military spouses and dependents. In addition, the availability of military friendly distance learning and online degree programs, participation in the MyCAA program, proximity to a military base, various military bases throughout the region with representative outreach, and NSU having an excellent academic accreditation. Not to mention, NSU assists in the ease of acquiring military student scholarships, discounts, and grants.

Navy College Program Distance Learning Partnership (NCDLP)-Interdisciplinary Studies Program (120 credits)

A program designed for military and civilian students. Military students may transfer-in up to 90 credits of military experience and training, CLEP/DANTES examinations and other college credits. Students may combine classroom instruction with Web-Based/Online courses. A strong Liberal Arts Degree providing foundations in many disciplines such as Management, Administration & Supervision, Leadership, Social Science, Education, Engineering, and Technology.

Urban Education Community Counseling Naval Base Program

Urban Education Community Counseling (UEDCC) is a Master of Arts, 39 credit, degree program designed for persons seeking a position in community counseling. Classes are held throughout the year consisting of 5-nine-week sessions. The program seeks military and civilian students who are engaged in individual and group counseling, academic advising, career development and training, and positions in human services. The goal of the program is to graduate an s significant number of individuals in the counseling profession, whose education and experience at Norfolk State University will have a positive impact on mankind, resulting in changed lives in the greater community.

NSU Reclamation Project

The Norfolk State University School of Extended Learning's Reclamation Project was launched in 1999. The Project's purpose is to facilitate the continuing education and subsequent graduation of former NSU students who left the University prior to completing all academic requirements for the bachelor's degree. The Reclamation Project is designed for students to take full advantage of technology while maintaining the academic integrity and intellectual rigor of the University. Among the methodologies for possible degree completion are web-based and lecture-enhanced instruction, independent study, and traditional classroom instruction offered at the NSU main campus (Norfolk), the Virginia Beach Higher

Education Center (Virginia Beach), and other accredited institutions of higher learning. Coursework completed at other accredited institutions of higher learning can usually be transferred to NSU for credit toward the undergraduate degree provided that a letter grade of "C" or better is earned. The three requirements for returning to Norfolk State University via the Reclamation Project are the student: 1) must be a former NSU student, (2) must be 24 years of age or older and (3) must not have taken any courses at Norfolk State during the immediate past five years.

DIVISION OF FINANCE AND ADMINISTRATION

Mr. Gerald Hunter
Vice President for Finance and Administration
(757) 823-8011

The Division of Finance and Administration 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 activities and customer-friendly interactions with constituents.

The Division ensures that the University complies with applicable state and federal requirements and sustains 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 Barnes and Noble Bookstore. It is located in the New Student Center. The Bookstore provides the University community with the widest possible selection of goods and services at competitive prices, with particular attention being paid to academic requirements.

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 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 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, billing, 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.

DINING 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.

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 Acting Executive Director of Communications and Marketing via the area's media outlets.

During times of inclement weather (e.g., hurricanes, tornadoes, etc.) employees and students may obtain information regarding NSU closing and cancellation of classes from the following:

RADIO STATIONS	TELEVISION STATIONS
WNSB FM 91.1	WTKR TV 3
WOWI FM 102.9	WAVY TV 10
WJCD FM 105.3	WVEC TV 13
WHRV FM 89.5	WVBT TV 43

For more information on this policy, please call the office of Communications and Marketing at (757) 823-8373, the office of Finance and Business at (757) 823-8011, the office of Risk Management at (757) 823-9142, the switchboard at (757) 823-8600 or the SpartanLine at (757) 823-2600.

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.

UNIVERSITY POLICE DEPARTMENT

Norfolk State University Police Department has primary responsibility for security on campus. The 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 and 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.

DIVISION OF RESEARCH AND ECONOMIC DEVELOPMENT

Office of the Provost and Vice President for Academic Affairs
(757) 823-8408

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

OVERVIEW

The Division of Research and Economic Development is primarily 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 Economic Development in that RISE Campus activity is underpinned by technology and research. Also, the Division provides a critical interface between Norfolk State University (NSU) and the Enterprise and Empowerment Foundation (E²F) that oversees the RISE project.

The Division of Research and Economic Development includes the Office of Sponsored Programs (OSP).

OFFICE OF SPONSORED PROGRAMS (OSP)

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

Sponsored Programs is the primary interface for all departments and units within the University for local, state, federal, and quasi-governmental agencies, for corporations, foundations and other entities that provide support for research projects and other sponsored program categories. 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 the Office 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 activities for all research and other sponsored programs, University-wide.

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 STUDENT AFFAIRS

Mr. Edward Willis
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 Suite 318, Student Services Center.

Functions include:

1. Identifying and developing full-time, internship and co-op opportunities;
1. Maintaining Spartanlink, a dynamic database of employment opportunities that allows students/alumni to upload resumes, apply for jobs and internships;
2. Providing career coaching and advising;

3. Planning and conducting professional seminars which includes Resume Writing, Interviewing Skills, Internship/Co-Op, How to Work a Career Fair, Job Search Strategies and Dress for Success;
4. Planning and coordinating the On-campus Interviewing Program;
5. Planning and conducting career fairs (fall/spring) and graduate professional school day (fall semester).

Students must register with Career Services to receive all available services. Seniors are strongly encouraged to register with Career Services as they prepare to transition into the professional workforce 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 312, Student Services 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 or (757) 823-2409

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 assists international students and scholars with matters related to immigration promoting 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 217, NSU Police Department Building.

COMPLAINTS AND GRIEVANCES TO EXTERNAL ENTITIES

For students (and other persons) who wish to address unresolved complaints, the University provides contact information for the following entities:

- a. The Southern Association of Colleges and Schools Commission on Colleges SACSCOC, 1866 Southern Lane, Decatur, Georgia 30033-4097 or call (404)679-4500 for unresolved complaints concerning University compliance with accrediting standards;
- b. The State Council of Higher Education for Virginia (SCHEV), 101 N. 14th Street, 10th Floor James Monroe Building, Richmond, Virginia 23219 for unresolved complaints concerning a condition or incident involving the University;
- c. The Office of the State Inspector General, 101 N. 14th Street, 7th Floor, Richmond, Virginia 23219, (804) 625-3255 or (800) 723-1615, for complaints alleging fraud, waste, abuse, or corruption; and
- d. The Office of Civil Rights of the U.S. Department of Education, 400 Maryland Avenue, SW, Washington, D.C. 20202, (1-800-872-5327), for complaints concerning federal laws prohibiting discrimination.

RESIDENCE LIFE AND 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). The Residential First Year Experience (R-FYE) 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 may sign up for the program by contacting housing@nsu.edu or (757) 823-8407.

Payment of Fees

All students desiring on-campus housing must submit an online housing application and include the non-refundable housing deposit of \$300.00 by the deadline date (May 31st for fall entry, November 1st for spring entry). Only applications accompanied by deposits will be considered. No bed spaces are guaranteed after the deadline dates.

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

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

Check-In

Prior to checking into the residence hall, each student should have completed all financial arrangements through the Office of Student Financial Services. All discrepancies in the room must be noted and reported to the residence staff prior to occupancy to avoid unwarranted charges. The staff will issue keys/combination and telephone numbers to the 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 to vacate the 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. In order to enhance the safety and comfort of everyone living in the residence halls, rules controlling conduct within housing are controlled by the Office of Residence Life and Housing. 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 may 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 (757) 823-9000. If emergency medical transportation is needed, the University 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 Spartan 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 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.

Student Accident Insurance Plan

All full time undergraduate students (U.S. citizens and permanent residents) taking 12 or more credit hours and all international students (full and part time, graduate and undergraduate) will automatically be enrolled in the Accident Only Expense Benefit and the Outpatient Prescription Drug Benefit, insured by BCS Insurance Company. This plan is mandatory and no waivers will be allowed. The annual premium of \$100 will be assessed to each qualifying student in two equal installments of \$50 each semester.

Additional coverage for sickness benefit is also available. While enrollment in the Sickness Expense portion of the plan is not mandatory, it is highly recommended for students who do not have adequate insurance for sicknesses. Part-time and graduate students are also eligible to enroll in the Optional Sickness plan. Specific information regarding the student insurance plan can be obtained via the NSU website.

Health Insurance

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. 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:

Recognized Student Organizations

STUDENT ORGANIZATIONS

ACCOUNTING ASSOCIATION	
Airway Science Club	Food Science and Nutrition Club
Alpha Delta Mu National Social Work Honor Society	French Club
Alpha Epsilon Rho	Freshman Class
Alpha Eta Rho Fraternity, Inc.	Girls in Science, Engineering and Technology (GISET)
Alpha Kappa Alpha Sorority, Inc.	Golden Key National Honor Society
Alpha Kappa Delta	Gospel Choir
Alpha Kappa Mu Honor Society	Graduate Student Association
Alpha Phi Alpha Fraternity, Inc.	Guild of Fine Arts
Alpha Phi Sigma National Criminal Justice Honor Society	Habitat for Humanity
Alpha Sigma Lambda	Health Information Management
American Chemical Society	Health Services Management Association
American Marketing Club	History Club
American Physics Society	Hotel, Restaurant and Institutional Management Club
officially recognized student organizations (cont'd)	Industrial Education Technology Club
American Production and Inventory Control Society	Institute of Electrical and Electronic Engineers
Association for Computing Machinery	International Food Service Executive Association
Association of Black Communicators	International Student Organization
Association of Concerned Sociologists	International Technology Education Collegiate Association
Association of General Contractors of America	Iota Phi Theta Fraternity, Inc.
Association of Information Technology Professionals	Junior Class
Athletes in Action	Kappa Alpha Psi Fraternity, Inc.
Banking and Finance Club	Kappa Delta Epsilon
Baptist Student Union	Kappa Kappa Psi Fraternity, Inc.
Beta Gamma Sigma Honor Society	Kappa Omicron Nu Kappa Omicron Tau Society
Beta Kappa Chi National Scientific	Leading the Education of Gay and Straight Individuals (LEGASI)
Beta Psi Biology Society	Lyman B. Brooks Debating Society
Caribbean Student Association	Mass Communications Student Association
Cheerleaders	Material Advantage (ACerS-ASM-TMS)
Chemistry Club	Mathematics Club
Chess Club	Medical Records Student Association
Chi Eta Phi Sorority, Inc.	Medical Technology Society
Circle K International	Minority Association of Pre-Health Students
Collegiate Secretaries International Concert Choir	Music Educators National Conference
Consumer Services and Family Studies Club	National Association for the Advancement of Colored People (NAACP)
Cooperative Education Club	National Association of Black Accountants (NABA)
Council of Independent Organizations (C.I.O.)	National Association of Blacks in Criminal Justice
Data Processing Management Club	National Broadcasting Society
Delta Sigma Theta Sorority, Inc.	National Council of Negro Women
Diplomats' Circle, The	National Pan-Hellenic Council
DNIMAS Student Association	National Society of Black Student Engineers
Early Childhood Education Club	National Society of Minorities in Hospitality
Eboni Rage Fashion Society	National Society of Pershing Angels Sorority, Inc.
Economics Club	National Society of Pershing Rifles Fraternity, Inc.
Elements of Style	National Student Nurses Association
English Club	The Norfolk Review (formally The Rhetorician)
English and Foreign Languages Major Club	Omega Psi Phi Fraternity, Inc.
Entrepreneurship Club	Optical Society of America (NSU Student Chapter)
Epsilon Tau Sigma	Phi Alpha Theta
Family and Consumer Sciences	Phi Beta Lambda
Finance and Banking Association	

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.

STUDENT PUBLICATIONS

1. Spartan Echo Newspaper
 Spartan Reflections
 The Intramural Program 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,
 Social interaction and the development of friendships,
 Sportsmanship of the highest order, and
 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

MISSION

The Student Support Services Program is federally funded by the United States Department of Education. The program was established on the campus of Norfolk State University in July, 1971.

The Norfolk State University Student Support Services Program is designed to provide an array of supportive services for 400 eligible participants. Program services are available to all SSS participants matriculating at NSU.

The overall purpose of the Student Support Services Program is to promote student retention and graduation from Norfolk State University.

SERVICES

1. Counseling (Academic and Financial Aid)
2. Peer Tutoring
3. Peer Mentoring
4. Cultural and Educational Enrichment Activities
5. Special Assistance for students with disabilities
6. Grant Aid Awards
7. Skills Development
8. Graduate and Professional School referrals
9. Financial Literacy
10. Computer Labs

11. Graduate and Professional School visitations

WHO IS ELIGIBLE?

1. Freshmen and sophomores enrolled at Norfolk State University
2. Student must have academic need as defined by the Student Support Services criteria
3. Students who meet the income criteria
4. First generation students
5. Students with disabilities

All students must meet two or more of the above criteria.

VETERANS AFFAIRS

(757) 823-2586

The Office of Veterans Affairs (OVA) provides specialized customer service to members of the various branches of military service, for veterans and eligible family members registration for Veterans Administration (VA) benefits, and counseling and general assistance in admission to the University. The VA Certifying Official for Norfolk State University also assists students with the 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 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.

DIVISION OF UNIVERSITY ADVANCEMENT

Dr. Deborah Fontaine

Interim Vice President for University Advancement
(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, 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.

ADMISSIONS

Mrs. Danielle Williams, Acting Executive Director

Phone: (757) 823-8396

Toll Free: 1-800-274-1821

<http://www.nsu.edu/admissions/>

History and Social Sciences	3
Health and Physical Education	2
Fine Arts or Practical Arts	1
Electives	6
TOTAL HOURS REQUIRED	22

**Algebra I, Geometry, Algebra II recommended*

GENERAL ADMISSIONS INFORMATION

Through exemplary teaching, scholarship, and outreach Norfolk State University transforms lives and communities by empowering individuals to maximize their potential, creating life-long learners equipped to be engaged leaders and productive citizens..

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 academic programs.

NSU does not discriminate based on ethnicity, race, gender, age, disability or religious beliefs. The Office of Undergraduate Admissions evaluates applicants based upon their individual potential for success at NSU and their perceived potential contribution to enhancing university performance against its goals and objectives.

UNDERGRADUATE 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 a General Education Diploma.. A "program completer" status is not equivalent to a high school diploma.

All applicants under the age of 21 must submit Scholastic Achievement 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.

All applicants must submit two letters of recommendation.

2. The applicant should have completed a minimum total of 22 units distributed as follows:

COURSE	HOURS
English	4
Mathematics*	3
Science	3

3. 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 530. 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.

ADMISSIONS PRIORITY DEADLINE

The priority application date for fall undergraduate admission is May 15. October 1 is the priority date for spring.

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 \$45, payable by check or money order or an official fee waiver. Applicants applying online will be assessed an application fee of \$20 payable by credit card.
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.)SAT/ACT scores. (Applicants who have reached the age of 21 at the time of enrollment are exempt from this requirement.) 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 \$45 non-refundable application fee.
3. An official report of test results issued by the General Education Development (GED) testing center, if applicable.
4. Two letters of recommendation.

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 \$45, payable by certified check or money order or an official fee

waiver. Applicants applying online will be assessed an application fee of \$20 payable by credit card.

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 12 semester hours are transferrable
4. SAT/ACT scores, if applicant is under the age of 21 and fewer than 12 semester hours are transferred.

GUARANTEED ADMISSION

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 visit the NSU website.

TRANSFER CREDIT

Transfer credit is acceptable 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 (CAS) will be generated for all accepted transfer students. The CAS 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 (AP)**
Students who attain scores of 3, 4, or 5 on the Advanced Placement Examinations administered by the College 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 (CLEP)**

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 the NSU website.

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 at (757) 823-9013.

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 day of enrollment.

5. **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:

- An application completed in full and a non-refundable application fee of \$45, payable in U.S. funds, or an official fee waiver.
 - Official or certified copies of all academic work and examination results in native language and in English.
6. Proof of English language proficiency for non-native English speakers.

7. SAT I or ACT scores for undergraduate applicants under the age of 21. Two letters of recommendation.
8. Financial documents, including notarized affidavit of support, student certification form, and bank statements.

Additional documents may be required.

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

NON-DEGREE ADMISSION

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 is 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 \$45 non-refundable application fee is required. Eligible non-degree-seeking students are required to meet with the department head for each course in which he/she would like to register.

Non-degree international students must submit a copy of TOEFL scores or a transcript showing completion of three semester hours of college-level English with a grade of "C" or better.

SPECIAL 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 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 may be obtained directly from the Department of Nursing or <http://www.nsu.edu>

Partnership for Academic and Student Success (PASSport)

Norfolk State University and several Virginia Community Colleges 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 contact the Office of Admissions (757) 823-2607 for additional information regarding the program.

READMISSION

Any former undergraduate who has not attended Norfolk State University for two or more spring or fall terms must complete an undergraduate readmission application form, students may re-apply at www.nsu.edu/registrar. 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 to guarantee review.

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.

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. 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.

VIRGINIA IN-STATE TUITION GUIDELINES

The following guidelines outline eligibility information for obtaining in-state tuition rates in the Commonwealth of Virginia. The information is not comprehensive and should only be used 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

State to which income taxes are filed or paid

Driver's license

Motor vehicle registration

Voter registration

Employment

Property ownership

Sources of financial support

Location of checking or passbook savings account

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 website.

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 for Virginia are on reserve in the University Library. For

additional information, contact the Office of Admissions at (757) 823-8396 or 1-800-274-1821.

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 tuition affordable. For fee information, students should obtain a current "Schedule of Tuition and Fees" or "Registration Information Booklet" booklet from the Registrar's or Admissions Office located in the Student Services Center or online at <http://www.nsu.edu> the Student Services Center.

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.

The current listing of tuition and fees is located at: <http://www.nsu.edu/studentaccounts/tuition.html>.

Senior Citizens' Tuition and Fees

Persons 60 years of age or older who are residents of Virginia and whose taxable income is less than \$15,000 may enroll in no more than three courses per semester 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.

Matriculation/Enrollment Fee

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

Enrollment Deposit Fee

All first-time and transfer students must pay a \$100 non-refundable enrollment deposit fee once accepted at Norfolk State University. For additional information about the enrollment fee, contact the Office of Admissions at (757) 823-2607.

Housing Department

All students who plan to live on campus must pay a non-refundable housing deposit of \$300.00 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. Applications can be completed online at <http://www.nsu.edu/residentiallife>. Housing is not guaranteed after the deadline dates.

Other 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 Registration Information Booklet (<http://www.nsu.edu/registrar/>).

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 Student Center.

Bookstore Authorization

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

If awarded financial aid exceeds the total tuition, fees, room, and board, funds may be placed on the Spartan Card for books and supplies. Students must be registered and have a current Spartan Card.

To obtain a book authorization, student should log on to <http://www.nsu.edu/mynsu/>.

REGISTRATION PAYMENT DUE DATES

All students are expected to pay prior balances and satisfy current tuition, fee, room and board 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.

CLASS CANCELLATION

If satisfactory payment arrangements are not made by established due dates, a student's registration will be cancelled. Students may re-register during the registration period and may be 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 have filled and, as a result, may be closed.

PAYMENT OF TUITION AND FEES

Students should be prepared to satisfy current tuition, fees, room, and meal costs through direct payment,

financial aid, and one of the approved payment plans. Financial aid is the amount indicated on the Financial Aid award letter.

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, American Express 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. Regardless of the option chosen, make certain payment or satisfactory arrangements are made by the scheduled class cancellation dates published for each semester.

OPTION 1

Make payments via **Spartan Self Service** on [MyNSU](http://mynsu.nsu.edu) using your checking account or debit/credit cards with VISA, MasterCard, American Express or Discover logos.

OPTION 2

Pay balances at the Cashier's Office (Cash, Personal Check, Money Order, VISA, MasterCard, American Express or Discover Card). Credit card payments can also be made by calling (757) 823-8545. Checks should be made payable to Norfolk State University and must include the student's name and I.D. number. **A \$50 returned check fee will be assessed on all non-negotiable checks.** Payments may be mailed (NO CASH PLEASE). If mailing payments, please allow one week for delivery time. Mail payments to the following address:

Cashier's Office
Student Services Center, Suite 209
Norfolk State University
700 Park Avenue
Norfolk, Virginia 23504

OPTION 3

Pay with a combination of financial aid grants and Ford Direct Loans, Parent Plus Loans, alternative/private loans and cash. Non-university scholarships are not credited toward tuition, fees, room and board charges until funds are received;

however, these awards may be counted as expected financial aid when establishing payment plans (see below) and included in the total amount of aid that will be used toward payment of University expenses. A copy of non-university scholarship notification should be sent to the financial aid office.

NOTE: Parent Plus and alternative/private loans must be approved by the lender and the loan application and approval must be received in Student Accounts 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. Processing may take up to six weeks.

OPTION 4

Pay monthly through a TuitionPay (a processing fee will be charged by TuitionPay) semester or annual payment plan. Benefits of this plan include:

- No burden of a lump sum payment if started early
- Manageable, interest-free installment payments
- Reduced need to borrow
- Tuition Insurance at no extra cost

Plan combined with Financial Aid

TuitionPay payment plan is available to all students who owe a balance. There are two easy ways to enroll in the TuitionPay plan:

*BY PHONE: Call a TuitionPay Education Payment Counselor at (800) 635-0120.

*BY INTERNET: Go to the [TuitionPay website](http://www.nsu.edu) and follow instructions to setup a monthly payment plan.

TUITION PAY OPTION IS AVAILABLE DURING FALL AND SPRING SEMESTERS ONLY. NO TUITIONPAY PLANS ARE AVAILABLE FOR SUMMER SCHOOL.

OPTION 5

Special payment arrangements can be made for those students receiving tuition and fee assistance from non-University sources (third party sponsorships and scholarships). In such cases, the outside agency must make the payment directly to Norfolk State University within 30 days of the billing date. In order to receive the special arrangements, the student must bring or send a letter of authorization from the granting agency

to the Office of Student Accounts, Student Services Center, Suite 209 prior to or at the time of registration.

- Services at (757) 823-8381 for an application and more information.

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

BILLING

The University sends e-mail 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. Statement information is available at MyNSU.

Questions pertaining to billing should be directed to the Student Services Center or at <http://www.nsu.edu>

DELINQUENT ACCOUNTS

Students who fail to honor payment arrangements or have balances resulting from incomplete or canceled financial aid will have grades, transcripts, diplomas, certifications, and non-mandatory verifications withheld. Payment in full will be required to release the financial hold.

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.

FINANCIAL AID

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 the University. Aid is awarded on the basis of financial need and or merit. Types of aid include scholarships, grants, loans, and employment.

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.

Generally, students 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, and certain programs award assistance to less than half-time students.

An entering student must be accepted for admission before receiving a financial aid award offer. Award notifications are sent via mail for new students and MyNSU for returning students beginning in April.

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

For more information about financial aid, please review the NSU Financial Aid Consumer Information Guide www.nsu.edu/financialaid/pdf/FinancialAidConsumerInformationGuide

APPLYING FOR FINANCIAL AID

The most important step in the financial aid process is to apply using the *Free Application for Federal Student Aid (FAFSA)*. This form can be completed online at www.fafsa.ed.gov and should be submitted as soon as possible after January 1 for the ensuing academic year. In order to electronically sign and submit the FAFSA, the student and parent must have a Personal Identification Number (PIN). The PIN serves as an electronic signature. First time applicants or those who do not have a PIN can apply for one by linking from the FAFSA site to www.pin.ed.gov. Once a PIN has been issued, it remains the same throughout the student's collegiate career. For more information on the FAFSA process, you may call (800) 433-3243.

The NSU priority deadline for completing the FAFSA is March 15. Financial aid is awarded on an annual basis. Students must complete the FAFSA each year in order to be considered for financial aid. Students must reapply for financial aid each year and continue to meet eligibility criteria.

Once the FAFSA is received and processed, the Department of Education will provide the applicant with a *Student Aid Report (SAR)*. NSU will receive an *Institutional Student Information Record (ISIR)* if the student has provided the NSU Federal School Code (003765). These reports will include the student's Expected Family Contribution (EFC). The EFC is calculated using a standard formula established by Congress, and is used as a measure of a family's financial ability to contribute to educational expenses. The Financial Aid Office will use this number to construct a financial aid package.

The Department of Education and/or NSU may select students for a process called verification. Selected students will have to prove the information they reported on their FAFSA is correct. If selected, students may be asked to verify: income, federal income tax paid, household size, independent student status, number of family members enrolled in post-secondary education, and untaxed income or benefits received. Students may be required to provide copies of other appropriate forms as well. Students who are selected for verification will be notified by the Financial Aid

Office. To prevent delays in processing, promptly provide any additional documentation that is requested.

ENROLLMENT STATUS

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, generally only undergraduate students with Pell eligibility may be considered for assistance.

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

CREDIT HOURS	UNDERGRADUATE	GRADUATE
12 or more	Full-Time	Full-Time
9-11	Three-Quarter	Full-Time
6-8	Half -Time	Half -Time
1-5	Less than Half -Time	

COST OF ATTENDANCE

Each year the Financial Aid Office provides an estimated cost of attendance for the University. Cost of attendance is based upon tuition and fees, as approved by the Board of Visitors, housing, meals transportation and other expenses related to attending school.

NOTIFICATION OF AWARDS

Incoming freshmen are notified via U.S. mail and e-mail of their financial aid offer. Current students should check their account online via MyNSU for award notification and other correspondences from the Financial Aid Office. The official form of communication for current NSU students is e-mail.

GRANTS

Federal Pell Grant

Federal Pell Grants are available to undergraduate students only and are administered by the Financial Aid Office. Eligibility is determined by the Expected Family Contribution (EFC) from the FAFSA. The student must be enrolled for at least one (1) semester hour.

Federal Supplemental Educational Opportunity Grant (FSEOG)

Federal Supplemental Educational Opportunity Grants are awarded to students who have exceptional financial need and are available to undergraduate students only. FSEOG is awarded

to students with the highest need levels. Priority is given to students who are enrolled full-time and are Pell eligible.

Teacher Education Assistance for College and Higher Education (TEACH) Grant

The Teacher Education Assistance for College and Higher Education Grant is available to undergraduate and graduate students that are taking course work that is necessary to begin a career in teaching or plan to complete such course work. Recipients may be referred to the Financial Aid Office by the School of Education and sign a TEACH Grant Agreement to serve.

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. The student must also complete at least 12 hours per semester, with at least a 2.0 grade point average to renew the award.

Virginia Commonwealth Award

Commonwealth awards are available to Virginia residents who show evidence of need. Awards are renewable for subsequent years as long as the student maintains satisfactory academic progress and funds are available. Student must be enrolled at least half-time and awards may not exceed the cost of tuition and fees.

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 domiciliary resident of Virginia; student must demonstrate financial need; student must maintain satisfactory progress; student must advance to next classification in order to be considered for CSAP.

SCHOLARSHIPS

While every attempt is made to meet a student's financial need, funds are limited and a student may require additional funds to cover their expenses. Students who require additional funds may wish to first consider applying for institutional and external scholarships:

Institutional Scholarships – The Institutional Scholarship Guide has been prepared to apprise students of various scholarship opportunities available. Institutional scholarships are provided by the various schools and departments on campus. We encourage you to apply early and adhere to the scholarship application deadlines. Applications can be obtained from the contact person/department listed in the Guide.

Check for Institutional scholarships online at www.nsu.edu/financialaid/scholarships

External Scholarships – External Scholarship Information has been prepared to apprise students of various outside scholarship opportunities. The External Scholarships are provided by various off-campus agencies and organizations. We encourage you to apply early and adhere to the scholarship application deadlines.

Applications for these outside scholarships can be obtained by visiting the agencies websites. Check for external scholarships online at www.nsu.edu/financialaid/scholarships

LOANS

WILLIAM D. FORD FEDERAL DIRECT LOAN

Federal Direct Loans are for undergraduate and graduate students. There are two major types of Federal Direct Loans: **Subsidized and Unsubsidized**.

Subsidized Federal Direct Loans provide low interest rates and are available to students who have financial need. A credit check is not required to receive these loans. The federal government pays the interest on these loans until six months after the student is no longer enrolled in school at least half-time. If the first disbursement is after July 1, 2012, the first interest rate is 6.8%. Students must monitor SAP. Freshmen can borrow \$3500, Sophomores - \$4500, Juniors and Seniors - \$5500. The aggregate amount as an undergraduate is \$23,000.

Unsubsidized Federal Direct Loans provide low interest rates and are available to all students regardless of financial need. A credit check is not required to receive these loans. The student is responsible for the interest, which may be paid while the student is in school or accrued and then added to the principal balance when the student enters repayment. Repayment begins six months after the student is no longer enrolled in school at least half-time.

Federal Direct Loan Fees

Federal Direct Loan awards have origination fees. Subsidized and Unsubsidized Direct Loans currently have a 1.5% origination fee with a 1.0% rebate if the first 12 monthly payments are made on time. Because of these fees, the actual Direct Loan amounts applied to your university bill will be lower than those listed on your award notice.

Federal Direct Parent Plus & Graduate Plus

Parents and graduate students who wish to apply for the PLUS or GRADUATE PLUS loan must go through a credit check AND complete a William D. Ford Direct Loan Master Promissory Note. Graduate students and

Academic Classification Level	Total Credit Hours Earned	Cumulative Grade Point Average
Freshmen	Less than 30	1.7 or higher
Sophomores	30 - 59 credit hours	1.8 or higher
Juniors	60 - 89 credit hours	2.0 or higher
Seniors	90 or more credit hours	2.0 or higher
Graduate Students	XXXXXXXX	3.0 or higher

parents of dependent students **MUST** go to the website www.studentloans.gov to complete this process. You will need your FAFSA PIN number. Parents must apply up to the cost of attendance minus other financial aid received.

STUDENT EMPLOYMENT FEDERAL AND INSTITUTIONAL WORK-STUDY

Work-Study provides eligible students another source of financial aid. Work-study programs allow students to gain valuable experience and networking opportunities. Eligible students are awarded either federal or institutional work-study. Institutional Work-Study excludes employment in certain departments, such as Athletics, Housing, Student Activities, Parking, Fitness Center, and Band. Eligible Work-Study students may also work in community service jobs. Students awarded work-study can view job announcements via the web at www.nsu.edu/work-study. Funds are limited.

SATISFACTORY ACADEMIC PROGRESS (SAP) POLICY

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, state and institutional grants, scholarships, employment, and loan programs. Students must meet minimum SAP standards in order to receive and to maintain eligibility for Title IV funds. The SAP standards apply to all students in degree seeking programs of study who wish to be considered for financial aid. SAP is a qualitative as well as a quantitative measurement of courses attempted and courses completed.

Academic Level Requirements – Completed hours must equal 67% of hours attempted to meet SAP standards. (For example: you must pass 11 credit hours out of 15 credit hours attempted) Students must not exceed 150% of attempted credit hours required to complete the program of study. Students must maintain a certain cumulative grade point average by advancing to the next academic classification level. Failure to maintain the minimum cumulative grade point average will result in the cancellation of financial assistance or

denial of financial assistance. The minimum grade point average for each classification level is indicated below:

These minimum standards are required in order to be considered for all federal, state, or institutional financial assistance. Aid will be terminated for any student who does not maintain the minimum standard.

TO REINSTATE FINANCIAL AID

In order to regain financial aid eligibility, students must enroll in classes at their own expense to advance their cumulative grade point average to the minimum SAP standards. After successfully obtaining the minimum SAP standards according to the classification level, students may be reinstated or considered for financial assistance for the upcoming terms. It is the student's responsibility to notify the Financial Aid Office of an advanced cumulative grade point average that meets the minimum SAP standards within the allotted time frame for awarding aid for the upcoming term. Questions regarding financial aid should be directed to the Financial Aid Office at (757) 823-8381 or faxed to (757) 823-9059.

APPEAL PROCESS

To appeal a denial of financial aid, the student may submit a completed Application for Financial Aid Appeal, along with all supporting documentation and an academic plan. The Application for Financial Aid Appeal must be inclusive of an academic plan constructed by the student and his/her advisor. The Application for Financial Aid Appeal can be obtained at <http://www.nsu.edu/financialaid>.

In Person:

Financial Aid Appeals Committee
Student Services Center, Suite 211

Via Mail:

Financial Aid Appeals Committee
Norfolk State University
Student Services Center, Suite 211
700 Park Avenue
Norfolk, VA 23504

Via Fax:

(757) 823-9059

Include the student's name and ID number on all documents. The appeals deadline is one month prior to the start of the term. The Financial Aid Appeals Committee will notify students of the appeals decision via their official NSU e-mail address.

WITHDRAWAL AND RETURN OF TITLE IV FUNDS

The Financial Aid Office is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing 60% of a semester. The Federal Title IV financial aid programs must be recalculated in these situations. Title IV funds include Pell, FSEOG, Perkins Loans, Direct Subsidized, Direct Unsubsidized, and PLUS loans.

If a student leaves the University prior to completing 60% of a semester, the Financial Aid Office recalculates eligibility for Title IV Funds. Recalculation is based on the percent of earned aid using the following Federal Return of Title IV Funds formula:

Percent of aid earned = the number of days completed up to the withdrawal date, divided by the total number of days in the semester. (Any break of five days or more is not counted as part of the days.)

The University may be required to return a portion of the funds, and the student may be required to return a portion of the funds. Keep in mind that when the Title IV Funds are returned, the student may owe a balance to the University. If that is the case, the student should contact the Office of Student Accounts to make arrangements to pay the outstanding balance.

OTHER SERVICES

1. 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.

2. 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.

3. Social Security Benefits

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

4. 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.

5. Veterans Benefits

Students may apply for educational benefits through the **Veterans Administration (VA) Vocational Rehabilitation Program**. Dependents of some disabled or deceased veterans may qualify for educational benefits. For more information, contact the Veterans Affairs Office at (757) 823-2586. 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 **Veterans 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 and by checking the federal website at www.fafsa.ed.gov.

6. Virginia Military Survivors and Dependent Education Program (VMSDEP)

The purpose of the VMSDEP is to provide eligible students enrolled in a Virginia public college or university with certain educational benefits in acknowledgement of the military service and sacrifice of their military parent or spouse. To be eligible for assistance under this program, an applicant must meet the following basic eligibility requirements:

- A spouse of a qualifying military service member; or
- A child, between the ages of 16 and 29, inclusive, of a qualifying military service member
- One of the applicant's parents must have served on active duty in the armed forces of the United States during at least one of the following: military operations against terrorism; a peace keeping mission; or as a result of a terrorist act; or any armed conflict subsequent to December 6, 1941.
- While serving active duty the applicants parents must meet at least one of the following: was killed; was missing in action; was prisoner of war; or is a veteran who, due to such service has been rated as permanently disabled or at least 90 percent disabled.
- Has one of the qualifying domicile status:
 - Virginia domicile at time of entering service or called up from reserves;
 - Virginia domicile for at least five years immediately prior to student applying for VMSDEP;

- iii. If deceased, was Virginia domicile on, and for at least five years prior to, his death;
- iv. in the case of a qualifying child, is deceased and the surviving parent has been, at some point previous to marrying the deceased parent, a Virginia domicile for at least five years or is and has been a Virginia domicile for at least five year prior to the student's application for this benefit; or in the case of a qualified spouse, is deceased and the surviving spouse had been, at some time previous to marrying the deceased military spouse a Virginia domicile for at least five years prior to student's admission application.

Eligible students, as confirmed by the Virginia Department of Veterans Services (DVS), are guaranteed waiver of all tuition and mandatory fees at a Virginia public college or university regardless of degree program or enrollment level. Summer awards are available if the student did not use the full annual award during the prior fall and spring terms, as funds are available.

Award amounts may be reduced if the number of eligible students exceeds projections. This award is not reduced by receipt of other gift aid, except that, when combined with other gift aid, the combination of assistance cannot exceed the student's cost of attendance. Applications for VMSDEP should be submitted to DVS along with the student's acceptance letter to a Virginia public college. Applications can be obtained at

<http://www.dvs.virginia.gov/statebenefits.htm>.

STUDENT REFUNDS

- 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. The refund process will begin approximately seven working days after the last date of class cancellation. Notifications will be sent to students via their NSU e-mail accounts one refunds have been processed.
- Students may sign up to receive refunds via direct deposit to a designated bank account. Banking information can be provided on MyNSU under Spartan Self Service.
- **TUITION APPEAL**

Norfolk State University will promptly refund tuition and/or cancel a financial charge from a student's account provided that the student meets 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, Student Services Building Suite 212, 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.

RESIDENCE HALL FINANCIAL INFORMATION

RESIDENTIAL FEES

All students who plan to live on campus must pay a non-refundable housing deposit of \$300.00 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 a 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 individual accounts, students should contact the Student Financial Services at (757) 823-8381.

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.

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

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.

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.

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 a 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.

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

- Space is not available to accommodate the student;
- The student is called for active duty prior to the first day of class;
- The student is deceased; or
- 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.

RESIDENCE HALL WITHDRAWAL PROCEDURES

If you are withdrawing from the NSU residence halls, you must contact the assigned residence hall personnel. Residents are responsible for removing all personal possessions and room cleaning, which must be verified by the Resident Hall Director. The student is responsible for completing all paperwork to complete 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 Residence Hall Director if they have questions. Students may also contact the Office of Residence Life and Housing at (757) 823-8407 or email us at housing@nsu.edu.

ACADEMIC INFORMATION

THE ACADEMIC YEAR

The academic year consists of 30 weeks of instructional time divided into two semesters. The first semester begins in late August and ends before the Christmas holidays; the second semester begins in January and ends in May. See the academic calendars provided in the front of this catalog.

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

An optional summer session is offered and 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. The summer session begins one week after the conclusion of the spring semester.

THE CURRICULUM

The curriculum is the vehicle through which the University seeks to make its most significant impact upon the lives of students. Developing, implementing, and updating curricula is the responsibility of the faculty and academic administrators. Curricular offerings are described in this catalog for each academic program.

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.

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.

MAJOR COURSE OF STUDY

Courses 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.

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 the 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 the academic departments and pay the required graduation fee. At least 20 hours of general education core 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 undergraduate students.

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

Associate degree-seeking students must pass the Examination of Writing Competency no later than one semester prior to the anticipated date of graduation. Additional information is provided under Examination of Writing Competency of the Academic Policies section (see p. 41).

GENERAL EDUCATION CORE PROGRAM

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:

- Write and speak logically, clearly, and precisely.

- Read and comprehend written and graphic information.
- Locate, compile, organize, and document information from print and digital sources.
- Understand mathematical and technological thought and conceptualize appropriate logic in problem solving.
- Understand and apply key concepts, principles and processes in the natural and social sciences.
- Demonstrate technological proficiency appropriate to their professional and personal needs.
- Examine, evaluate, and appreciate history's influences on economic, political and social events.
- Understand and appreciate diverse cultures and perspectives.
- Examine and understand the role of personal and responsible citizenship in democratic society.
- Appreciate aesthetics.

GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE DEGREE

Norfolk State University offers an associate degree program in Architectural Drafting. Students seeking an associate degree are required to complete general education core requirements appropriate to the degree program. See the associate degree program description and curriculum for more information about specific general education core requirements.

GENERAL EDUCATION REQUIREMENTS FOR THE BACCALAUREATE DEGREE

Students entering Norfolk State University seeking the baccalaureate degree are required to take forty (40) semester hours from the general education core curriculum consisting of the following subject areas:

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)	
CSC 150	Computer Literacy
HEALTH AND PHYSICAL EDUCATION (3 SEMESTER HOURS)	
PED 100	Fundamentals of Fitness for Life
HED 100	Personal and Community Health
HUMANITIES (3 SEMESTER HOURS)	
ENG 207	Literature for the Western World
FIA 201	Basic Art Appreciation
MUS 301	Music Appreciation
MATHEMATICS (3 SEMESTER HOURS)	
MTH 103	Mathematics in General Education
NATURAL SCIENCES (7 SEMESTER HOURS)	
BIO 100	Biological Science

BIO 100L	Biological Science Lab
SCI 101	Introduction to Physical Science
SCI 101L	Physical Science Lab
SOCIAL SCIENCES (3 SEMESTER HOURS)	
SOC 101	Introduction to Social Sciences
HIS 101	History of World Societies Part 2
HIS 103	United States History 1865 to the Present
BUS 175	Introduction to Business and Entrepreneurship
ECN 200	Basic Principles of Economics
CULTURAL PERSPECTIVES (6 SEMESTER HOURS)	
ENG 383*	African-American Literature
MUS 234*	African-American Music
HIS 335*	African-American History, Part 1
HIS 336*	African-American History, Part 2
HRP 320*	African American Health
HIS 371*	African History and Culture

**Courses marked with an asterisk satisfy the University's cultural elective requirement. Departments may require specific courses for their majors.*

UNIVERSITY FOUNDATIONS (3 SEMESTER HOURS)	
IUL 101	Introduction to University Life

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 Introduction to University Life (IUL 101) with a minimum grade of "C." An exemption approval form is available in the academic departments.

Complete the General Education Core requirements.

Have a minimum cumulative grade point average of 2.0.

Have a minimum of 120 semester hours of credit.

Meet all requirements of the curriculum leading to the degree for which he or she is a candidate.

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.

Meet core competency requirements.

Degree-seeking students at the baccalaureate level are required to take the writing examination before completing 90 semester hours. Degree candidates must pass the Examination of Writing Competency (EWC) no later than one semester prior to the anticipated date of graduation. Additional information is provided under Examination of Writing Competency of the Academic Policies section (see p. 41).

Exceptions to degree requirements may be made only with PRIOR written approval of the Provost upon recommendation of the Department Head and College/School Dean. Exceptions may not exceed six semester hours of academic credit.

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 and to understand that continued financial aid is dependent upon meeting these standards.

UNDERGRADUATE ACADEMIC STANDARDS

Satisfactory academic progress toward degree completion by the number of semester hours completed and by the number of quality points earned. A minimum of 240 quality points and 120 completed 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 academic progress are:

ATTEMPTED RESIDENT HOURS	MINIMUM RESIDENT G.P.A.
1-29	1.7000
30-59	1.8000
60 and above	2.0000

CLASSIFICATION OF UNDERGRADUATE STUDENTS

CLASSIFICATION	DESCRIPTION
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 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 grade point average or above may carry additional hours ONLY with appropriate approval by the academic advisor/department chairperson and school dean. 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.

For graduate students, the normal course load for a full-time graduate student is 9 and no more than 15 semester hours. A course load in excess of 15 semester hours must be approved by the dean of the school/ college.

DEANS LIST AND HONOR ROLL

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 G.P.A. with no "I" (incomplete) or missing grades and no grade less than a 'C'. Eligibility for the Honor Roll requires a term G.P.A. of 3.00 -3.49 with no "I" or missing grades.

HONORS DESIGNATION

Students who have completed all degree requirements and have met the following criteria at the time degree requirements have been met will earn an honors designation. The following honors categories for baccalaureate graduates are reflected in the printed Commencement Program:

- **Summa Cum Laude:** cumulative resident G.P.A. 3.7500 - 4.0000
- **Magna Cum Laude:** cumulative resident G.P.A. 3.5000 - 3.7499
- **Cum Laude:** cumulative resident G.P.A. 3.0000 - 3.4999.

The honors designation will be noted on the official transcript.

Recognition of Honors at Graduation

Honors designations are based on the degree candidate's academic record the semester prior to Commencement. Degree candidates who have earned an honors designation will be recognized in the commencement program provided the honors designation was earned in the semester immediately preceding the anticipated commencement date. For additional information, see Commencement Participation in the Academic Policies section (p. 39).

GRADE REPORTS

Effective Spring 2006, grades are available online at MyNSU (<http://www.nsu.edu/mynsu>) under the Spartan Self Service tab), grade reports are no longer mailed to students. Anyone needing an official grade report for work or other purposes must complete a Request for Official Final Grade Report in the Office of the Registrar. The grade report will be mailed within 2-3 business days.

Information regarding the grading system is described in the Academic Standards section (p. 35). Information regarding the grade appeal process is described in the Academic Policies section (p. 40).

THE GRADING SYSTEM

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

GRADE	QUALITY POINTS	GRADE	QUALITY POINTS
A	4.0000	C	2.0000
A-	3.7000	C-	1.7000
B+	3.3000	D+	1.3000
B	3.0000	D	1.0000
B-	2.7000	D-	0.7000
C+	2.3000	F	0.0000
*P	None	n/a	
**AU	None	Audit	
I	None	Incomplete	
W	None	Official Withdrawal	
NG	None	No Grade Reported	
S	None	Satisfactory	
#	None	Forgiven	

* 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 quality points earned by the total number of completed semester hours.

Example Grade Point Average Calculation

COURSE	TOTAL GRADE	CREDIT HOURS	QUALITY POINTS	TOTAL QUALITY POINTS
HIE 264	C	1	2.0	2.0000
HIE 264L	C+	2	2.3	4.6000
HIE 149L	B-	2	2.7	5.4000
ECE 340	B+	3	3.3	9.9000
FIA 280	A-	3	3.7	11.1000
MUS 301	D-	3	0.7	2.1000
TOTAL		14		35.1000

- Total quality points = semester hours multiplied by quality points
- G.P.A. = Sum of total quality Points divided by total semester hours
- A grade of 'F' = 0 completed semester hours

Example:

35.1000 total quality points divided by 14 total semester hours equals **2.5071 G.P.A.**

Removal of Incomplete (I) Grades

The "I" (Incomplete) grade may be used by the instructor during the final grading period when the course requirements have not been met because of illness or some other extenuating circumstance. In order to receive an "I" grade, the student must be passing the course and have completed 80% of all coursework. Except for cases such as internships, student teaching, or final projects that may require more time, students have until the 7th week of the following semester to complete and submit missed assignments as indicated on the Incomplete Contract. If work is not submitted by the due date, the default grade will be entered by the Registrar. If no default grade was submitted, the "I" grade will change to "F" (failure).

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

Repeating Courses

A student who received a final grade less than an "A" in a course may repeat the course. The course to be repeated must be taken at Norfolk State University or the original institution offering the course (i.e., through consortium or cross registration agreement) 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 cumulative G.P.A. 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. Students must pass all courses in the major with a grade of C or higher.

STANDARDS OF SATISFACTORY ACADEMIC PROGRESS

Undergraduate Students

Students must complete at least 67% of all courses attempted in order to maintain satisfactory academic progress. Courses that are not considered as "completed," but still count as hours attempted are failed (F) courses, incomplete (I) courses, dropped (D) courses and withdrawn (W) courses. Repeated courses will count toward hours earned if:

- a passing grade was earned, and
- the course had not been counted previously towards hours earned.

Academic Classification for Full-Time Undergraduate Students

LEVEL	TOTAL CREDIT HOURS EARNED	CUMULATIVE G.P.A.
Freshman	Fewer than 30	1.7 or higher
Sophomore	30-59	1.8 or higher
Junior	60-89	2.0 or higher
Senior	90 or more	2.0 or higher
Graduate		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. Also, students must not exceed 150% of the number of credits needed to complete a degree.

ACADEMIC PROBATION AND SUSPENSION

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

1st Warning

Upon receipt of First Warning Probation Letter, the student must schedule an appointment with ACCESS and meet with an ACCESS advisor to:

1. Develop and sign an Academic Performance Contract

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).

Enroll in and complete the Study Skills Seminar conducted by the ACCESS Department.

2nd Warning

Upon receipt of Second Warning Probation Letter, the student must:

1. Complete an Academic Performance Contract
2. See advisor to revise course schedule or assist with course selection and registration
3. Enroll in required Study Skills Seminar with the Spartan Success Center.

NOTE: 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.

Suspension

Students who are on probation and do not achieve the required grade point average after two warnings are subject to suspension from the University. A letter of suspension will be issued to the student.

Appealing Academic Suspension: Policy and Procedures

If a student wishes to appeal a suspension decision, a written letter of appeal must be faxed or mailed to the Office of the Registrar at least one month prior to the first day of class. Any appeals received after this date may 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.

Readmission after Restoration of Academic Eligibility

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

Take courses (minimum: 6 credit hours) during the University's summer session and maintain a G.P.A. of 2.0 or better.

Leave the University for one or more semesters (which may include one summer) complete a minimum of 6 credit hours of academic work at another college or university,

and earn a grade point average of 2.0 or better each semester.

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, information literacy, 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 section below 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.

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 POLICIES

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.

Additional 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.

ATTENDANCE POLICIES

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.

Class Attendance Policy

The University expects students to attend all classes. While 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 course 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 percent of scheduled class meetings for the semester may receive a grade of F for the course.

Students have the responsibility to confer with instructors regarding all absences or intended absences. If a 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 (e.g., 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.

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 a major without approval of the department from which and to which a transfer is made.

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.

Students must resolve deficiencies and/or discrepancies in the academic record with the department heads within prescribed guidelines. Failure to do so may result in deferring graduation.

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 the semester prior to Commencement.

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

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.

COURSE SUBSTITUTIONS

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

Substitution is not to be confused with waiver. Substitution is an option to meet a requirement, while waiver implies exemption. Waivers for requirements in the major are not granted.

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

General Education Core - 6 hours

MLS 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) MLS and NSC courses may be used provided the student is enrolled in the appropriate Military Science or Naval Science Program when substitutions are requested.

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 (G.P.A.).

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.

GRADE APPEAL

The instructor has the responsibility for evaluating coursework and determining grades; however, the student has the right to appeal a grade believed to be in error. The appeal process may involve the following steps and may be resolved at any level:

The student confers with the instructor involved.

The student and instructor (preferably together) confer with the chairperson of the department offering the course.

The student and instructor (preferably together) confer with the dean of the school in which the department is housed.

When the above steps do not resolve the issue, the student may initiate a formal written appeal through the Faculty/Student Grievance Committee to the Provost for its review and recommendation. Appeals should not be taken lightly by either the student or the instructor.

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.

OFF-CAMPUS CLASS 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 Provost 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.

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.

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 are not reported and will remain confidential. Information from the assessment activities will be used by faculty and administrators to improve programs and services.

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 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 all 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
Eight Week	80% + \$50
Ninth Week	90% + \$50
Tenth Week	No Refund

Funds must be returned to the federal financial aid program if less than 60 percent of the semester is completed. The required order for allocating refunds and repayments is:

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.

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 an exit examination to assess writing competency. After completing ENG 102, students must register for ENG 299 (no credit, no charge) until successfully passing the Examination of Writing Competency. The 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 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.

REGISTRATION PROCEDURES

The Registrar is the official custodian of academic records and is responsible for the process of enrolling students in courses, providing registration statements (which include 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. For more information please contact the Office of the Registrar at (757) 823-8229.

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 registration information booklet outlining registration policies and procedures, final examination schedules, and other information pertaining to registration for a given semester or summer school is available in the Office of the Registrar or online at www.nsu.edu/registrar. Class schedules are available online under Search for Classes using <http://www.nsu.edu/mynsu/>. 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

registration information 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 MyNSU (<http://www.nsu.edu/mynsu/>).

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.

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 the Spartan Student Success Center (SSSC) for advising and schedule changes. Non-matriculating students should contact the Dean's Office in the College 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.

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.

CHANGE OF NAME AND ADDRESS

It is the obligation of the student to notify the Office of the Registrar of any change in name (legal documentation required) or address.

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 10 business 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 second floor of the Student Services Center, or by mailing the request to: Registrar's Office, Suite 212, Student Services Center, 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.

Online requests for transcripts may be placed at www.nsu.edu/registrar. The cost for online transcript requests is \$5.25 per copy, and must be paid using a valid credit card. The same processing times apply for online requests.

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.

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.

“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

The Office of the Registrar adheres to the following disposal schedule as recommended by the Library of Virginia's Records Retention and Disposition Schedule, General Schedule No. 111, College and University Records (effective March 2009).

ACADEMIC RESOURCES AND SERVICES

SPARTAN SUCCESS CENTER (SSC)

~~Nursing and General Education Building, Room 100; (757) 823-9231; ssc@nsu.edu~~

MISSION

The Spartan Student Success Center (SSC) supports Norfolk State University's mission of transforming lives and communities by empowering a culturally diverse student population through a comprehensive educational plan that addresses academic engagement, educational commitment, self-efficacy, and campus engagement.

GOAL

To provide a systematic approach designed to improve student achievement, increase retention, and reduce the time to degree completion.

- Foster an open and responsive environment that encourages faculty and students to take an active interest and role in student success.
- Develop in each student the skills, attitudes, and beliefs necessary to foster an understanding of the process of learning to achieve academic, career and life goals.
- Work collaboratively with the campus community to promote student persistence and successful completion of the students' educational goals.

- Assess the effectiveness of the Spartan Success Center and evolve in response to student needs.
- To assist students in becoming more independent, self-confident and efficient learners.

CHILD DEVELOPMENT LABORATORY

**James Bowser Building, Room 113-A
(757) 823-8111**

The Child Development Laboratory is part of Early Childhood Education program in the School of Education. The laboratory provides training and observation facility for class assignments, research, student teaching and field work. It provides a readiness curriculum for ages 2.5 to 5 years. Hours of operation are 7:30 a.m. to 5:30 p.m. Monday through Friday. For more information contact (757) 823-8111 or (757) 823-9241.

COMMUNITY AND OUTREACH SERVICES

**Brambleton Community Outreach Center
909 Marshall Avenue
Norfolk, VA 23504
(757) 823-8743**

The Brambleton Outreach Center (Center) is Norfolk State University's primary connection with its surrounding neighborhoods. The Center is the point

of contact for those neighbors seeking information related to community/public service activities conducted by the university. The Center is the hub for all university community and public service activities. The goal of the Center is to provide the place where neighbors seek and the university through its students and faculty provide the services that encourage communication, interaction, trust and a sense of community with each other.

COMPREHENSIVE LANGUAGE LEARNING CENTER

J. Hugo Madison Hall, Room 240
(757) 823-8891

The Comprehensive Language Learning Center 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.

ERNEST M. HODGE CENTER FOR ENTREPRENEURSHIP

McDemmond Center for Applied Research
(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. Please see the School of Business section of catalog for additional information.

GLOBAL LEADERSHIP DEVELOPMENT CENTER

Brown Memorial Hall, Room A-240
(757) 823-8920

This center is equipped with state-of-the-art audio visual equipment to facilitate teleconferencing. It is primarily available to School of Business faculty for professional development activities.

MATHEMATICS MEDIA CENTER

Brown Memorial Hall, Room C-227
(757) 823-8820

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

MATHEMATICS TESTING CENTER

Brown Memorial Hall, Room C-227
(757) 823-8820

The mission of the Mathematics Testing Center is to:

1. Monitor computer pretests for the MTH 101 Elementary Algebra Lab Component;
4. Evaluate and record results of pretest mastery for MTH 101 faculty;
5. Diagnose deficiencies of students enrolled in MTH 101; and
6. Provide tutorial assistance for all pre-calculus courses.

NEW STUDENT ORIENTATION

Enrollment Management
Student Services Center, Suite 208
(757) 823-8679

New Student Orientation introduces new students to the NSU campus. Orientation is a process designed to assist new first-year and transfer students in making a successful transition to college life at NSU. The one day session affords new students the opportunity to learn about college courses at NSU, student life, available services, and unique opportunities to broaden their experience. New students also meet with an academic advisor and register for NSU courses, become familiar with campus technology, and attend information sessions. First-time freshmen take a mathematics placement test. Students also learn how to take advantage of all that NSU has to offer both inside and outside the classroom.

The New Student Orientation website is <http://www.nsu.edu/newstudentorientation/>. The website provides information such as:

1. Reading lists and welcome letters from the academic schools
2. Orientation dates and locations
3. Class schedule information for upcoming semesters
4. University contact information and directions to campus

The website allows students to RSVP for a particular orientation date online. For more information about New Student Orientation, please call (757) 823-8673.

CUSTOMER CARE CENTER

Student Services Center

Second Floor (757) 823-8673

The Customer Care Center is available and committed to address comments, questions and concerns related to the NSU experience. Individuals are counseled regarding University policies and procedures. Concerns and complaints are investigated by working with campus officials and a response is given via email.

The Director serves as a student advocate to ensure that reoccurring concerns that impact image and retention are brought to management's attention. Ensuring the highest level of satisfaction is paramount. Student voices are heard through online surveys, face-to-face surveys, and email and in-office consultations. For more information about Customer Care, please call (757) 823-8673 or visit www.nsu.edu/customer-care.

PLANETARIUM

Wood Science Building Room 119 (757) 823-8909

The Norfolk State University 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.

THE CENTER FOR APPLIED RESEARCH AND PUBLIC POLICY

Brown Memorial Hall, C-142 (757) 823-9575

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. For more information, please contact Dr. Rudolph Wilson at (757) 823-9575.

STARS (SCIENCE AND TECHNOLOGY ACADEMICIANS ON THE ROAD TO SUCCESS) TUTORING CENTER

Nursing and General Education Classroom Building, Suite 307 (757) 823-2891

The STARS Peer Tutoring Program offers free, one-on-one tutoring or group tutoring for students taking courses in biology, chemistry, computer science, engineering, mathematics, nursing, physics, and technology. Tutoring is provided by graduate and undergraduate peer tutors who have been trained in effective tutoring techniques in accordance with College Reading and Learning Association Guidelines.

TEACHER EDUCATION RESOURCE CENTER (TERECE)

Bozeman Education Building, Room 225 (757) 823-8715

The H.H. Bozeman Integrated Media Resource Center is committed to providing high quality service to teacher education candidates. The center 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. For more information, please contact Dr. Leon Rouson at (757) 823-2260.

LIST OF DEGREE PROGRAMS

DIVISION	UNDERGRADUATE	MINORS	CERTIFICATION / TEACHER LICENSURE ENDORSEMENTS	GRADUATE
SCHOOL OF BUSINESS	BACHELOR OF SCIENCE - Accountancy - Business - Tourism and Hospitality Management	- Accountancy - Business		
SCHOOL OF EDUCATION	BACHELOR OF SCIENCE - Early Childhood Education(Non-Certification Option) - Exercise Science/Physical Education		- Driver Education - Early Childhood/Primary - Elementary Education (PreK-6) - Health - Secondary Education - Special Education	MASTER OF ARTS - Pre-Elementary Education - Severe Disabilities - Urban Education MASTER OF ARTS IN TEACHING - Biology - Chemistry - Elementary Education - English - Fine Arts - History - Math - Music - Physics

List of Degree Programs

COLLEGE OF LIBERAL ARTS	BACHELOR OF ARTS <ul style="list-style-type: none"> – English – Fine Arts and Graphic Design – History – Journalism – Political Science – Psychology – Sociology 	<ul style="list-style-type: none"> – English – Fine Arts – French – History – Interdisciplinary Studies – Journalism – Mass Communications – Political Science – Psychology – Sociology – Spanish 		MASTER OF ARTS <ul style="list-style-type: none"> – Community/Clinical Psychology – Criminal Justice – Media and Communications – Urban Affairs – Visual Studies
	BACHELOR OF MUSIC <ul style="list-style-type: none"> – Music Education BACHELOR OF SCIENCE <ul style="list-style-type: none"> – Interdisciplinary Studies – Mass Communications 			
COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY	ASSOCIATE OF SCIENCE <ul style="list-style-type: none"> – Architectural Drafting 	<ul style="list-style-type: none"> – Astronomy – Biology – Computer Science – Mathematics – Physics 	<ul style="list-style-type: none"> – Biology – Chemistry – Mathematics – Physics 	MASTER OF SCIENCE <ul style="list-style-type: none"> – Computer Science – Cybersecurity – Electronics Engineering – Materials Science – Optical Engineering
	BACHELOR OF SCIENCE <ul style="list-style-type: none"> – Biology – Building Construction Technology – Chemistry – Computer Science – Computer Technology – Electrical and Electronics Engineering – Electronics Technology – Health Services Management – Information Technology – Mathematics – Medical Technology – Nursing – Optical Engineering – Physics 			

List of Degree Programs

SCHOOL OF SOCIAL WORK	BACHELOR OF SOCIAL WORK – Social Work			MASTER OF SOCIAL WORK – Social Work
				DOCTOR OF PHILOSOPHY – Social Work

SCHOOL OF BUSINESS

Dr. Dr. Bidhu Mohanty, Interim Dean
 Dr. Jim Chen, Associate Dean
 Dr. V. Reddy Dondeti, Head of the Department
 (757) 823-8920

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

"Our mission is to be your path to an amazing future. At Norfolk State's School of Business, high character combines with high expectations, excellence in instruction and a global perspective to prepare students to succeed personally and professionally. Our graduates will be known for mastery of their academic specialty and the ability to apply their knowledge in the workplace and in service to others. It is precisely this type of preparation that has allowed our graduates to assume leadership roles in great organizations worldwide."

ACCREDITATION

Norfolk State University's School of Business is accredited by the Association to Advance Collegiate Schools of Business (AACSB-International). AACSB accreditation represents the highest standard of achievement for business schools worldwide and is the hallmark of excellence in business education.

PROGRAMS OF STUDY

The Bachelor of Science (B.S.) degree is offered in Accountancy and in Business. Within the Business major students may concentrate in Entrepreneurship, Finance, Management, Management Information Systems, and Marketing. The School also administers the B.S. degree in Tourism and Hospitality Management.

ADMISSION REQUIREMENTS

The School of Business uses the same standards for admission as the University. Non-matriculating students may not take courses in the School of Business without the consent of the Department Chair and Dean.

Students transferring courses to NSU may be granted advanced standing. (See Transfer Credit, below.)

BUSINESS CORE

Students who pursue a B.S. degree in either Accountancy or Business must complete the following core courses that are listed below. 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.

COURSE	COURSE TITLE	HOURS
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
BUS 175	Introduction to Business and Entrepreneurship	3
BUS 281	Legal Environment for Business	3
BUS 330	Business Communications	3
DSC 270	Business Statistics	3
DSC 376	Statistics and Quantitative Methods	3
ECN 211	Principles of Microeconomics	3
ECN 212	Principles of Macroeconomics	3
ENT 387	Introduction to Entrepreneurship	3
FNC 360	Corporate Finance	3
MGT 365	Organizational Behavior and Theory	3
MGT 476	Operations Management	3
MGT 478	Strategic Management	3
MIS 375	Management Information Systems and E-Commerce	3
MKG 366	Principles of Marketing	3
TOTAL DEGREE HOURS REQUIRED		48

CURRICULUM REGULATIONS

All freshman and sophomore-level (lower division) courses in the curriculum must be completed before enrolling in junior and senior-level (upper division) courses. 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 "C" or higher must be earned in the non-business courses listed below.

COURSE	COURSE TITLE
ENG 101	Communication Skills I
ENG 102	Communication Skills II
MTH 131	Pre-calculus for Non-Science Majors
MTH 132	Calculus for Non-Science Majors
SCM 285	Principles of Speech
IUL 101	Introduction to University Life

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, without restriction. Credits transferred to NSU from colleges or universities not accredited by AACSB may be accepted as substitutes only for those courses determined to be equivalent to lower division courses. Credits transferred to NSU from the Virginia Community College System (VCCS) will be accepted as substitutes for equivalent courses, 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. At least 50 percent of business course credits must be earned at NSU.

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, among other considerations, their current cumulative grade point average. The following course load limitations are suggested:

CUMULATIVE G.P.A.	MAXIMUM HOURS
Below 2.0000	12
2.0000– 2.4900	15
2.5000 or 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 Bank of America, Disney, El-Fayoumy, SM Perkins, Thelma M. Hayes Endowment, Wal-Mart Leadership, Houghton Scholarship fund, and the Holley/Osborne Endowment. Students interested in applying for scholarships may contact the Associate Dean of the School of Business.

STUDENT ORGANIZATIONS

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

- Pi Sigma Epsilon (Marketing)
- Beta Gamma Sigma (Honors Society)
- Finance and Banking Club
 - Association for Information Technology Professionals (AITP)
- National Association of Black Accountants (NABA)
- National Coalition of Black Meeting Planners
- Society for the Advancement of Management (SAM)
- 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 promotes the establishment of business and community partnerships.

ERNEST M. HODGE CENTER FOR ENTREPRENEURSHIP

Dr. Yatish T. Shah, Co-Director
Dr. Macki Sissoko, Co-Director
(757) 823-8739

The Ernest M. Hodge Center for Entrepreneurship provides leadership programs and resources that enable NSU to serve local businesses while immersing students in the entrepreneurial experience. Through multidisciplinary student/faculty teams, the Center offers knowledge and technical assistance to businesses in the Hampton Roads region. The goal is to strengthen and expand the

number and quality of minority- and women-owned, growth-oriented, and technology-driven businesses in the area.

Most prominently, the Hodge Center's Entrepreneur-in-Residence Program (EIRP) is a first for the nation's Historically Black Colleges and Universities. The EIRP enables students to serve as consultants to prospective entrepreneurs as well as to actual for- and not-for-profit businesses seeking growth opportunities in Hampton Roads. In the case of the former, students assist hopeful entrepreneurs as they perform market research, develop business

Minor in Accountancy

A business or a non-business student is required to take five courses (15 hours) to earn a minor in Accountancy. This includes three required courses (9 hours) and two elective courses (6 hours) as follows:

REQUIRED COURSES

COURSE	COURSE TITLE	HOURS
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
ACC 301	Intermediate Accounting I	3

ELECTIVE COURSES (CHOOSE TWO)

COURSE	COURSE TITLE	HOURS
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

TOTAL DEGREE HOURS REQUIRED	15
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plans, investigate sources of financing, and launch their new ventures. In the latter instance, guided by clients' senior executives and NSU faculty, EIRP students develop solutions to today's complex business problems and present their recommendations to management. All majors are welcome.

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) as follows:

REQUIRED COURSES

COURSE	COURSE TITLE	HOURS
BUS 175	INTRODUCTION TO BUSINESS AND ENTREPRENEURSHIP	3
ACC 201	Principles of Financial Accounting	3
MGT 365	Organizational Behavior and Theory	3
MKG 366	Principles of Marketing	3
MIS 375	MIS and E-Commerce	3

ELECTIVE COURSES (CHOOSE ONE)

COURSE	COURSE TITLE	HOURS
ENT 387	Introduction to Entrepreneurship	3
FNC 360	Corporate Finance	3

TOTAL DEGREE HOURS REQUIRED	18
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B.S. in Accountancy

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BUS 175	Introduction to Business and Entrepreneurship	3
BIO 100	Biological Sciences	3
SCI 101	Introduction to Physical Science	3
XXX XXX	Science Lab Elective (See Note A)	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MIS 284	Advanced Micro Computing	3
MTH 131	Pre-calculus for Non-Science Majors	3
MTH 132	Calculus for Non-Science Majors	3
PED 100	Fitness for Life or PED 101/102 or Modified PED	1
TOTAL HOURS REQUIRED		31

THIRD YEAR

COURSE	COURSE TITLE	HOURS
ACC 301	Intermediate Accounting I	3
ACC 302	Intermediate Accounting II	3
ACC 315	Federal Income Tax I	3
ACC 413	Cost Accounting	3
BUS 330	Business Communications	3
DSC 376	Statistics and Quantitative Methods	3
ENT 387	Introduction to Entrepreneurship	3
FNC 360	Corporate Finance	3
MGT 365	Organizational Behavior and Theory	3
MKG 366	Principles of Marketing	3

TOTAL HOURS REQUIRED	30
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SECOND YEAR

COURSE	COURSE TITLE	HOURS
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
BUS 281	Legal Environment for Business	3
DSC 270	Business Statistics	3
ECN 211	Principles Microeconomics	3
ECN 212	Principles of Macroeconomics	3
ENG 299	Writing Competency Exam	0
LOG 210	Logic: Critical Thinking	3
SCM 285	Principles of Speech	3
XXX XXX	Humanities (See Note B)	3
PSY 210	Introduction to Psychology	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
ACC 330	Accounting Systems	3
ACC 411	Intermediate Accounting III	3
ACC 414	Auditing	3
MGT 476	Operations Management	3
MGT 478	Strategic Management	3
MIS 375	Management Information Systems and E-Commerce	3
SOC 325	Society, Business, and Internationalism	3
XXX XXX	Global/Cultural and Language Elective (See Note B)	3
XXX XXX	Business Elective (See Note C)	6
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Business Core	48
Business Electives	6
Major Requirements	21
Other Requirements	6
TOTAL DEGREE HOURS REQUIRED	121

CERTIFICATIONS IN ACCOUNTING

Many graduates want to obtain professional certification. The most popular certification is that of the Certified Public Accountant (CPA). As in most States, students taking the CPA exam in Virginia have to meet a 150 credit-hour requirement. A School of Business student has the option to pursue dual degrees in accounting and business (with a concentration in information management or finance). The option 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 School of Business programs 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 course requirements.

B.S. in Business -- Entrepreneurship

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BUS 175	Introduction to Business & Entrepreneurship	3
BIO 100	Biological Sciences	3
SCI 101	Introduction to Physical Science	3
XXX XXX	Science Elective (See Note A)	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal & Community Health	2
MIS 284	Advanced Micro Computing	3
MTH 131	Pre-calculus for Non-Science Majors	3
MTH 132	Calculus for Non-Science Majors	3
PED 100	Fitness for Life or PED 101/102 or Modified PED	1
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
BUS 281	Legal Environment for Business	3
DSC 270	Business Statistics	3
ECN 211	Principles of Microeconomics	3
ECN 212	Principles of Macroeconomics	3
ENG 299	Writing Competency Exam	0
LOG 210	Logic: Critical Thinking	3
PSY 210	Introduction to Psychology	3
SCM 285	Principles of Speech	3
XXX XXX	Humanities (See Note B)	3
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BUS 330	Business Communications	3
DSC 376	Statistics and Quantitative Methods	3
ENT 386	New Venture Finance	3
ENT 387	Introduction to Entrepreneurship	3
FNC 360	Corporate Finance	3
MIS 375	Management Information Systems and E-Commerce	3
MGT 365	Organizational Behavior and Theory	3
MKG 366	Principles of Marketing	3
SOC 325	Society, Business, and Internationalism	3
XXX XXX	Business Elective (See Note D)	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
BUS 147	International Business	3
ENT 465	Small Business Management	3
ENT 469	Entrepreneurship-in-Residence	3
ENT 476	Franchising	3
MGT 476	Operations Management	3
MGT 478	Strategic Management	3
XXX XXX	Business Electives (See Note D)	9
XXX XXX	Global/Cultural and Language Elective (See Note B)	3
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Business Core	48
Business Electives	12
Major Requirements	15
Other Requirements	6
TOTAL DEGREE HOURS REQUIRED	121

B. S. in Business -- Finance

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BUS 175	Introduction to Business and Entrepreneurship	3
BIO 100	Biological Sciences	3
SCI 101	Introduction to Physical Science	3
XXX XXX	Science Lab Elective (See Note A)	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MIS 284	Advanced Micro Computing	3
MTH 131	Pre-calculus for Non-Science Majors	3
MTH 132	Calculus for Non-Science Majors	3
PED 100	Fitness for Life or PED 101/102 or Modified PED	1
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
BUS 281	Legal Environment for Business	3
DSC 270	Business Statistics	3
ECN 211	Principles of Microeconomics	3
ECN 212	Principles of Macroeconomics	3
ENG 299	Writing Competency Exam	0
LOG 210	Logic: Critical Thinking	3
SCM 285	Principles of Speech	3
PSY 210	Introduction to Psychology	3
XXX XXX	Humanities (See Note B)	3
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BUS 330	Business Communications	3
DSC 376	Statistics and Quantitative Methods	3
ENT 387	Introduction to Entrepreneurship	3
FNC 360	Corporate Finance	3
FNC 362	Investments	3
MGT 365	Organizational Behavior and Theory	3
MKG 366	Principles of Marketing	3
SOC 325	Society, Business and Internationalism	3
XXX XXX	Business Elective (See Note E)	6
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
FNC 363	Financial Institutions	3
FNC 488	International Finance	3
FNC 474	Intermediate Financial Management	3
FNC 499	Cases in Financial Management	3
MIS 375	Management Information Systems and E-Commerce	3
MGT 476	Operations Management	3
MGT 478	Strategic Management	3
XXX XXX	Business Electives (See Note E)	6
XXX XXX	Global/Cultural and Language Elective (See Note B)	3
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Business Core	48
Business Electives	12
Major Requirements	15
Other Requirements	6
TOTAL DEGREE HOURS REQUIRED	121

B.S. in Business -- Management

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL101	Introduction to University Life	3
BUS 175	Introduction to Business and Entrepreneurship	3
BIO 100	Biological Sciences	3
SCI 101	Introduction to Physical Science	3
XXX XXX	Science Lab Elective (See Note A)	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MIS 284	Advanced Micro Computing	3
MTH 131	Pre-calculus for Non-Science Majors	3
MTH 132	Calculus for Non-Science Majors	3
PED 100	Fitness for Life or PED 101/102 or Modified PED	1
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
BUS 281	Legal Environment for Business	3
DSC 270	Business Statistics	3
ECN 211	Principles of Microeconomics	3
ECN 212	Principles of Macroeconomics	3
LOG 210	Logic: Critical Thinking	3
PSY 210	Introduction to Psychology	3
SCM 285	Principles of Speech	3
XXX XXX	Humanities (See Note B)	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BUS 330	Business Communications	3
DSC 376	Statistics and Quantitative Methods	3
ENT 387	Introduction to Entrepreneurship	3
FNC 360	Corporate Finance	3
MGT 350	Ethics in Management	3
MGT 365	Organizational Behavior and Theory	3
MGT 368	Human Resource Management	3
MIS 375	Management Information Systems & E-Commerce	3
MKG 366	Principles of Marketing	3
XXX XXX	Business Elective (See Note F)	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
MGT 410	Leadership and Diversity in Management	3
MGT 415	International Management	3
MGT 420	Organizational Change and Development	3
MGT 476	Operations Management	3
MGT 478	Strategic Management	3
SOC 325	Society, Business, and Internationalism	3
XXX XXX	Global/Cultural and Language Elective (See Note B)	3
XXX XXX	Business Electives (See Note F)	9
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Business Core	48
Business Electives	12
Major Requirements	15
Other Requirements	6
TOTAL DEGREE HOURS REQUIRED	121

B.S. in Business -- Management Information Systems

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BUS 175	Introduction to Business and Entrepreneurship	3
BIO 100	Biological Sciences	3
SCI 101	Introduction to Physical Science	3
XXX XXX	Science Lab Elective (See Note A)	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MIS 284	Advanced Micro Computing	3
MTH 131	Pre-calculus for Non-Science Majors	3
MTH 132	Calculus for Non-Science Majors	3
PED 100	Fitness for Life or PED 101/102 or Modified PED	1
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
BUS 281	Legal Environment for Business	3
DSC 270	Business Statistics	3
ECN 211	Principles of Microeconomics	3
ECN 212	Principles of Macroeconomics	3
ENG 299	Writing Competency Exam	0
LOG 210	Logic: Critical Thinking	3
SCM 285	Principles of Speech	3
PSY 210	Introduction to Psychology	3
XXX XXX	Humanities (See Note B)	3
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BUS 330	Business Communications	3
DSC 376	Statistics and Quantitative Methods	3
ENT 387	Introduction to Entrepreneurship	3
FNC 360	Corporate Finance	3
MIS 375	Management Information Systems and E-Commerce	3
MIS 390	Business Database Management	3
MGT 365	Organizational Behavior and Theory	3
MKG 366	Principles of Marketing	3
SOC 325	Society, Business, and Internationalism	3
XXX XXX	Business Elective (See Note G)	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
MIS 410	Information Systems Analysis and Design	3
MIS 415	Web-Based Application Development for E-Business	3
MIS 419	Networking	3
MIS 423	Decision Support Systems and Data Mining	3
MGT 476	Operations Management	3
MGT 478	Strategic Management	3
XXX XXX	Business Electives (See Note G)	9
XXX XXX	Global/Cultural and Language Electives (See Note B)	3
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Business Core (48)/Business Electives (12)	48/12
Major Requirements	15
Other Requirements	6
TOTAL DEGREE HOURS REQUIRED	121

B.S. in Business -- Marketing

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BUS 175	Introduction to Business and Entrepreneurship	3
BIO 100	Biological Sciences	3
SCI 101	Introduction to Physical Science	3
XXX XXX	Science Lab Elective (See Note A)	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MIS 284	Advanced Micro Computing	3
MTH 131	Pre-calculus for Non-Science Majors	3
MTH 132	Calculus for Non-Science Majors	3
PED 100	Fitness for Life or PED 101/102 or Modified PED	1
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
BUS 281	Legal Environment for Business	3
DSC 270	Business Statistics	3
ECN 211	Principles of Microeconomics	3
ECN 212	Principles of Macroeconomics	3
LOG 210	Logic: Critical Thinking	3
PSY 210	Introduction to Psychology	3
SCM 285	Principles of Speech	3
XXX XXX	Humanities (See Note B)	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BUS 330	Business Communications	3
DSC 376	Statistics and Quantitative Methods	3
ENT 387	Introduction to Entrepreneurship	3
FNC 360	Corporate Finance	3
MIS 375	Management Information Systems and E-Commerce	3
MGT 365	Organizational Behavior and Theory	3
MKG 366	Principles of Marketing	3
MKG 367	Consumer Behavior	3
XXX XXX	Business Electives (See Note H)	3
SOC 325	Society, Business and Internationalism	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
MGT 476	Operations Management	3
MGT 478	Strategic Management	3
MKG 412	Marketing Management	3
MKG 413	Principles of Retailing	3
MKG 416	International Marketing	3
MKG 497	Marketing Research	3
XXX XXX	Business Electives (See Note H)	9
XXX XXX	Global/Cultural and Language Electives (See Note B)	3
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Business Core	48
Business Electives	12
Major Requirements	21
Other Requirements	9
TOTAL DEGREE HOURS REQUIRED	121

B.S. in Tourism and Hospitality Management

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BUS 175	Introduction to Business	3
CSC 150	Computer Literacy	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HRM 100	Professional Development I	3
HRM 115	Introduction to Hospitality	3
MTH 103	Contemporary Mathematics	3
BIO 100	Biological Sciences	3
SCI 101	Introduction to Physical Science	3
XXX XXX	Science Lab Elective (See Note A)	1
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ECN 211	Principles of Macroeconomics	3
HRM 112	Principles of Nutrition	3
HED 100	Personal and Community Health	2
HRM 120	Sanitation Principles	3
HRM 200	Computers in Hospitality	3
HRM 230	Hospitality Accounting I	3
HRM 330	Hospitality Accounting II	3
PED 100	Fundamentals of Fitness for life	1
SCM 285	Principles of Speech	3
XXX XXX	Global/Cultural & Language Electives (See Note B)	6
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
HRM 210	Front Office Management	3
BUS 330	Business Communication	3
XXX XXX	Global/Cultural & Language Electives (See Note B)	3
HRM 310	Professional Development	2
MGT 365	Organization Behavior & Theory	3
MKG 366	Principles of Marketing	3
HRM 391L	Work Experience	3
HRM XXX	Tourism and Hospitality Electives (See Note I)	9
TOTAL HOURS REQUIRED		29

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
MGT 415	International Management	3
HRM 440	Hospitality Sales and Marketing	3
HRM 462	Human Resources Management	3
HRM 471	Hospitality Law	3
HRM 490	Senior Project	3
HRM XXX	Tourism and Hospitality Management Electives (See Note I)	12
XXX XXX	Free Elective	3
TOTAL HOURS REQUIRED		30

TOTAL DEGREE HOURS REQUIRED

120

LIST OF NOTES FOR BUSINESS DEGREE PROGRAMS

NOTE A

A student needs to take One (1) of the following laboratory courses:

COURSE	COURSE TITLE
BIO 100L	Biological Science Lab
SCI 101L	Introduction to Physical Science Lab

NOTE B

Global/Cultural and Language Electives (6 hours)

A student will choose TWO (2) courses from the list below. At least ONE of these must be a non-language course.

COURSE	COURSE TITLE
ENG 207	Introduction to World Literature
ENG 383	African-American Literature
FIA 201	Basic Art Appreciation
GEO 141	World Regional Geography
GEO 331	Economic Geography
GEO 336	Political Geography
GEO 337	Geography of Africa
HIS 335	African-American History
HIS 336	African-American History
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	Caribbean and Latin American History
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: The Colonial Period
HIS 448	Slavery in the Atlantic Basin
HIS 476	Modern China and Modern Japan
HUM 210	Humanities
HUM 211	Humanities
MUS 301	Music Appreciation
MUS 234	African-American Music
POS 315	African American Politics
POS 323	Comparative Government
POS 360	International Relations
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 the African American
REL 200	Major World Religions
SOC 101	Introduction to Social Science
SOC 237	Racial and Ethnic Minorities
SOC 242	Introduction to Anthropology
FRN 111/ 112	Elementary French I and II
GRM 111/ 112	Elementary German I and II
JPN 111/ 112	Elementary Japanese I and II
SPN 111/ 112	Elementary Spanish I and II
SWA 111/ 112	Elementary Swahili I and II

NOTE C

A student in the Accountancy major needs to take TWO (6 credit hours) of the following as Business Elective courses.

COURSE	COURSE TITLE
ACC 316	Federal Income Tax II
ACC 418	Govt. & Not-for-Profit Accounting
BUS 300	Internship
BUS 400	Independent Study
BUS 417	International Business
BUS 493	Special Topics in Business (Senior Standing)
ENT 469	Entrepreneurship-in-Residence
ENT 476	Franchising
FNC 362	Investments
FNC 474	Intermediate Financial Management
MGT 420	Organizational Change and Development
MIS 390	Business Database Management
MIS 410	Information Systems Analysis and Design
MKG 367	Consumer Behavior

NOTE D

A student in the Entrepreneurship concentration needs to take FOUR (12 credit hours) of the following as Business Elective courses.

COURSE	COURSE TITLE
ACC 330	Accounting Systems
BUS 300	Internship
BUS 400	Independent Study
BUS 493	Special Topics in Business
ENT 482	Managing Growing Ventures
ENT 484	Creativity, Innovation, and Change Management
FNC 362	Investments
FNC 363	Financial Institutions
MGT 368	Human Resource Management
MGT 420	Organizational Change and Development
MKG 367	Consumer Behavior
MKG 413	Principles of Retailing

NOTE E

A student in the Finance concentration needs to take FOUR (12 credit hours) of the following as Business Elective courses.

COURSE	COURSE TITLE
ACC 301	Intermediate Accounting I
ACC 315	Federal Income Tax I
ACC 330	Accounting Systems
BUS 300	Internship
BUS 400	Independent Study
BUS 493	Special Topics in Business
BUS 417	International Business
ENT 469	Entrepreneurship-in-Residence
ENT 476	Franchising
FNC 310	Risk Management
FNC 395	Introduction to Personal Financial Planning
MGT 368	Human Resource Management
MIS 390	Business Database Management
MKG 497	Marketing Research

NOTE F

A student in the Management concentration needs to take FOUR (12 credit hours) of the following as Business Elective courses.

COURSE	COURSE TITLE
BUS 300	Internship
BUS 400	Independent Study
BUS 493	Special Topics in Business

ENT 465	Small Business Management
ENT 469	Entrepreneurship-in-Residence
ENT 476	Franchising
MGT 370	Total Quality Management
MGT 435	Compensation
MIS 390	Business Database Management
MIS 415	Web-based Application Development for E-Business
MIS 423	Decision Support and Data Mining
MKG 412	Marketing Management
MKG 413	Principles of Retailing
MKG 497	Marketing Research

NOTE G

A student in Management Information Systems concentration needs to take FOUR (12 credit hours) of the following as Business Elective courses.

COURSE	COURSE TITLE
ACC 301	Intermediate Accounting I
ACC 302	Intermediate Accounting II
ACC 330	Accounting Systems
BUS 300	Internship
BUS 400	Independent Study
BUS 493	Special Topics in Business
ENT 465	Small Business Management
ENT 469	Entrepreneurship-in-Residence
FNC 362	Investments
MGT 368	Human Resources Management
MGT 415	International Management
MIS 374	Business Application in Visual Basic
MIS 386	Web 2 Applications
MKG 367	Consumer Behavior
MKG 497	Marketing Research

NOTE H

A student in Marketing concentration needs to take FOUR (12 credit hours) of the following as Business Elective courses.

COURSE	COURSE TITLE
BUS 300	Internship
BUS 400	Independent Study
BUS 493	Special Topics in Business
ENT 465	Small Business Management
ENT 469	Entrepreneurship-in-Residence
ENT 476	Franchising
FNC 362	Investments
FNC 363	Financial Institutions
MGT 368	Human Resource Management
MGT 410	Leadership and Diversity Management
MIS 390	Business Database Management
MKG 411	Salesmanship
MKG 414	Advertising and Promotion Management
MKG 418	Internet Marketing

NOTE I

A student in Tourism and Hospitality Management needs to take SEVEN (21 credit hours) of the following as Elective courses.

COURSE	COURSE TITLE
HRM 150	Tourism Principles
HRM 211	Housekeeping
HRM 280	Dining Room and Beverage Management Operations
HRM 300	Purchasing
HRM 331	Food, Beverage, and Labor Control

HRM 359	Commerical Food Production/Laboratory
HRM 381	Facilities Layout and Design
HRM 400	Restaurant Management
HRM 401	Club and Resort Management
HRM 402	Management by Menu
HRM 403	Catering Management
HRM 481	Property Management
HRM 494	Hospitality Franchising

SCHOOL OF EDUCATION

Dr. Denise Littleton, Dean
(757) 823-8701
Dr. Joan Johnson, Associate Dean
(757) 823-8886

“Preparing competent, compassionate, collaborative, 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:

- a) To contribute to the knowledge base in the field of educational theory and practice in a multi-cultural, multi-lingual, multi-racial world.
7. To provide leadership in involving public schools, universities and communities in collaborative educational efforts.
8. To provide service to other agencies engaged in education in such a manner 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 PreK-12 schools. Consistent with the institution's mission, its focus is to prepare competent, compassionate, collaborative, 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 Virginia 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 certification and licensure requirements for the Commonwealth 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, centers and laboratories are as follows:

- Department of Early Childhood/Elementary Education and Special Education
- Department of Health, Physical Education and Exercise Science
- Department of Secondary Education and School Leadership
- The H.H. Bozeman Integrated Media/Resource Center
- The Center for Professional Development
- The Student Volunteer Center
- The Praxis I Instructional Laboratory
- The Child Development Laboratory

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 18-24 semester hour professional education sequence and a 12-semester hour student teaching experience in the School of Education. The licensure and degree requirements for all programs offered by the School of Education may be revised due to the Virginia Department of Education's regulations, Norfolk State

University requirements or regional and national accreditation standards. Department heads and faculty advisors will inform students of the most

current information due to changes from any of the agencies which may be different than the information in this catalog.

THE CENTER FOR PROFESSIONAL DEVELOPMENT

Dr. June M. Montgomery, Director
(757) 823-8715

The Center for Professional Development has the responsibility of 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.

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. Students admitted to the pre-professional program are required to apply for admission to the professional education program after completion of the sophomore courses (student must have 60 credit hours, have passed PraxisI/SAT/ACT or its equivalent, and obtained a 2.5 G.P.A.).

CRITERIA FOR ADMISSION TO TEACHER EDUCATION PROFESSIONAL LEVEL

Applicant must have done the following:

1. Completed all prescribed (per curricula) freshman and sophomore courses and earned a grade point average of 2.5 or better in all lower level (freshman and sophomore) courses.
2. Earned a grade of "C" or better in all English and math courses, exhibited physical and mental health requisite to the responsibilities and duties of the teaching profession.
3. Evidenced character and dispositions appropriate for the duties and responsibilities for the teaching profession and exhibited a professional interest in teaching.
4. Earned a grade of "C" or better in EDU 201, EDU 201, PED 280 or SPE 210 and submitted proof of

completion of the level I field experience in the Tk20 system.

5. Passed the PRAXIS Core/SAT/ACT Examination or its equivalent and submitted original copy of score report.
6. Received departmental recommendations to be admitted to teacher education.
7. Submitted a portfolio containing items specified in departmental handbook.
8. Verified no felony or misdemeanor charge or pending for drugs, or against children, and indicate any other law offenses by submitting the results of an universal background check.

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).
2. Special forms are provided by the School of Education on the Center for Professional Development website:
<https://www.nsu.edu/cpd/index>.
3. Applications will be evaluated as "Approved" or "Rejected." Applicants "Rejected" may reapply the next semester.
4. The student must receive "Approved" admission to teacher education before registering for upper level professional courses.
5. The student must verify no felony or misdemeanor charge or pending for drugs, or against children, and indicate any other law offenses by submitting the results of an universal background check.

RETENTION IN TEACHER EDUCATION

Once admitted to teacher education, the following conditions apply:

1. The teacher candidate 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 at least 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 Core/SAT/ACT) or its equivalent.
3. Passing scores on Praxis II Content Area Assessment.
4. Passing scores on the Virginia Reading Assessment (VRA), if applicable, and also a passing score on the Virginia Communication and Literacy Assessment.
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. Submission of all field experience reports in the Tk20™ assessment system.
7. Evidence of above average academic accomplishment in major subject field.
8. Evidence of above average academic accomplishment in professional education, including both general and special courses.
9. An overall average scholastic record of 2.5 or better for all undergraduate work completed.
10. Departmental endorsement (major subject field area advisor and department head). See Student

Teaching Application at Center for Professional Development webpage.

11. Status as a graduating senior in December or May of the school semester in which directed teaching is to begin as verified by the department head advisor.
12. Evidence of above average achievement in written and oral communication, to include meeting all communications' requirements for earning a baccalaureate degree from the University.
13. Satisfactory disposition and character references by advisor or department head.
14. Completion of required methods of teaching courses within the last two semesters prior to making application for admission to directed teaching.
15. Evidence of training in child abuse/neglect.
16. Submission of a negative current TB test result, an universal background check, and a Search of the Central Registry from Social Services (if applicable).
17. Verification of no pending felony or misdemeanor for drugs, or offenses against children, and any other law offenses.
18. For transfer students, completion of 30 minimal hours of coursework at Norfolk State University, including at least one methodology course, before approval for student teaching (department head).

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 at the University that sponsor teacher preparation programs.

H. H. BOZEMAN TEACHER EDUCATION RESOURCE CENTER

The H. H. Bozeman Integrated Media/Resource Center provides supplementary materials and instructional media for the School of Education. The center has 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 EARLY CHILDHOOD/ELEMENTARY AND SPECIAL EDUCATION

Dr. Margaret D. Knight, Department Head
(757) 823-2700

The Early Childhood/Elementary and Special Education Department (ESEE) provides undergraduate and graduate programs for students seeking preparation to work with young children in the community, agencies, and preK-12 school settings. The goal of the teacher education programs is to prepare competent, compassionate, collaborative, and committed leaders. The teacher education programs are approved by the Virginia Department of Education and accredited by the National Council for the Accreditation of Teacher Education (NCATE). The early childhood, elementary, and special education programs provide instruction, field experiences, and clinical practices that develop excellence in teaching and skills to serve diversified populations.

The degree and teacher certification endorsement **programs** in the Department of Early Childhood/Elementary and Special Education are:

- Bachelor of Science in Early Childhood Development – Child Care Non-teaching Option (NCOP)
- Bachelor of Arts in Psychology - Early Childhood/Primary Certification Endorsement PreK-3
- Bachelor of Arts in Psychology – Elementary Education Certification Endorsement PreK-6
- Bachelor of Science in Interdisciplinary Studies Education Certification Endorsement PreK-6 (History Concentration)
- Bachelor of Science in Interdisciplinary Studies Education Certification Endorsement PreK-6 (English Concentration)
- Bachelor of Science in Interdisciplinary Studies Education Certification Endorsement PreK-6 (Mathematics Concentration)
- Bachelor of Arts in Psychology – Special Education General Curriculum K-12 Concentration
- Bachelor of Science in Interdisciplinary Studies – Special Education General Curriculum K-12 Concentration



LICENSURE AND BACCALAUREATE DEGREE REQUIREMENTS

Students interested in teaching early childhood, elementary, or special education must pursue a degree in psychology or interdisciplinary studies and earn full licensure to teach in the desired teaching discipline. Students who possess an undergraduate degree and desire to earn a teaching license may apply to Norfolk State University as a non-degree seeking student. Admission to Norfolk State University does not guarantee admission to the teacher education program.

The licensure and/or degree requirements are under constant revisions due to either, the Commonwealth of Virginia's regulations, Norfolk State University's requirements, or regional or national accreditation standards. Advisors and the School of Education webpage will inform students of the most current information resulting from changes by any of the agencies. Current guidelines and regulations supersede information in this catalog.

TK20 ASSESSMENT SYSTEM GUIDELINES

All students enrolled in a degree program and seeking teacher licensure are to have access to the web-based portfolio assessment system upon enrolling in the first education course. Candidates are to maintain all field experience, clinical practice, and course assessment data as requested by instructors in the Tk20 system. Information about the use of Tk20 is found on the Center for Professional Development webpage at

<https://www.nsu.edu/education/cpd/index>.

GENERAL EDUCATION LICENSURE REQUIREMENTS

To be eligible for the early childhood preK-3, elementary education preK-6, or special education-general curriculum K-12 teaching license, students must have an undergraduate degree in liberal arts and sciences (or equivalent) from a regionally accredited institution. The candidate for the non-degree teaching license certification endorsement only, who has a degree in a liberal arts or science area, must fulfill the following semester-hour requirements:

- English (must include composition, oral communication, and literature): 12 semester hours;
- Mathematics: 12 semester hours;
- Science (including a laboratory course): 8 semester hours in at least two science disciplines;
- History (must include American history): 9 semester hours;
- Social science (must include geography and economics): 6 semester hours; and
- Arts and humanities: 6 semester hours.

ASSESSMENT REQUIREMENTS FOR TEACHERS

To satisfy the state of Virginia's testing requirements for the initial licensure programs, students must pass the Praxis Core Academic Skills for Educators Tests (or its equivalent) and Praxis II (if applicable to program), the Virginia Communication and Literacy Assessment (VCLA), and the Reading for Virginia Educators (RVE)..

The Praxis Core Academic Skills for Educators Tests (or its equivalent) include an academic skills assessment of mathematics, reading, and writing and must be passed before admission to teacher education and enrolling in methods of teaching courses.

Praxis II is a content knowledge exam for teachers and must be passed before program completion, if applicable to your program.

VCLA is a test of communication, reading, and writing skills.

VRE is a test of students' knowledge of reading instruction.

You may see the assessment requirements for Virginia licensure at http://www.doe.virginia.gov/teaching/licensure/prof_teacher_assessment.pdf

Students are responsible for providing copies of the Praxis Core or equivalent test results to the program advisor for admission to teacher education and copies of all other assessments are included in the student teaching application packet. When reporting results for Praxis II, students must submit a paper copy of the "Examinee Score Report." to the Center for Professional Development. The Examinee Score Report is sent to the student by ETS, and it provides detailed score information that the Center for Professional Development is required to collect. (This information is NOT available on the "Designated Institution Score Report" sent to Norfolk State by ETS.) Information about test registration is available on the Center for Professional Development's webpage.

MEETING THE PRAXIS REQUIREMENT

Effective January 1, 2014, the following assessments are required for all candidates who are seeking a license to teach.

The Praxis Core Academic Skills for Educators Tests include Reading (5712), Writing(5722), and Mathematics (5732). These tests require a passing score for each of the three subtests. There is not a composite passing score for the assessments. If a passing score is not obtained on each subtest, a subtest may be retaken as a stand-alone test. The

passing score on the reading subtest is 156; writing 162; and mathematics 150.

SAT as a substitute for the Praxis Core requires a score of 1000 with at least 450 on the verbal and 510 on the mathematics test if taken prior to April 1, 1995. After April 1, 1995 a score of 1100 with at least 530 on the verbal and 530 on the mathematics tests is required.

ACT as a substitute for the Praxis Core requires a composite score of 21 with the ACT mathematics score no less than 21 and an ACT English Plus Reading score no less than 37 if taken prior to April 1, 1995. After April 1, 1995 a composite score of 24 with the ACT mathematics score no less than 22 and an ACT English Plus Reading score no less than 46.

Virginia Communication and Literacy Assessment (VCLA) as a substitute for Praxis (reading and writing) can be used to meet the Praxis requirement along with the Praxis Core Academic Skills for Educators: Mathematics (5732) subtest or equivalent SAT or ACT test scores. A composite score of 470 on the VCLA with subtest scores of at least 235 on writing and 235 on reading may be combined with a qualifying score of 150 on the mathematics portion of the Praxis Core Academic Skills for Educators Test.

ADMISSION TO TEACHER EDUCATION GUIDELINES

Students applying for admission to the teacher education program must have a minimum 2.5 grade point average with no grade below a C and must have passed Praxis I or the equivalent tests. Applicants are required to complete a portfolio that contains two letters of recommendation, a copy of their philosophy of education, an update on any disposition documents on file, as well as participate in an interview, and meet any other requirements as outlined in the guidelines provided at Center for Professional Development webpage <https://www.nsu.edu/education/cpd/index>

Students are to be admitted to teacher education prior to enrolling in any professional education observation participation course. Students must continue to maintain a 2.5 GPA and earn at least a grade of "C" for continuance in the teacher education program.

OBSERVATION AND OBSERVATION PARTICIPATION FIELD PLACEMENTS AND CLINICAL PRACTICE

The introductory course, Foundations of Education has an observation experience that is designed to help students decide if teaching is the right choice for them. All methods of teaching courses have an observation participation requirement that must be met in an

appropriate, licensed setting. Students are required to have current negative TB test results and a current background verification form in order to request field experience placements. Students must pass Praxis I and meet the requirements for admission to teacher education before participating in an observation-participation field experience. A provisionally licensed teacher may participate in observation participation if s/he has a letter from the Virginia Department of Education listing the course as a needed requirement and has passing VCLA scores.

TEACHER EDUCATION ASSESSMENTS AND APPLYING TO STUDENT TEACH OR COMPLETE THE PRACTICUM

In order to student teach and obtain a Virginia teaching license, all teacher education students must attain passing scores on the appropriate teacher licensure assessments.

It is recommended that the VCLA be taken after students have completed their English and reading course requirements.

The RVE, if applicable, is required for licensure and should be taken after all reading courses have been completed.

Candidates should take the Exit Examination of Writing Proficiency after completing the English courses.

Candidates must receive training on the recognition of child abuse and neglect in the designated course and keep the certificate to submit with the licensure application.

Candidates are required to pass the appropriate Praxis II specialty area assessment with scores established by the Virginia Department of Education.

Candidates are required to complete the Emergency First Aid, Cardiopulmonary Resuscitation (CPR) and Use of Automated External Defibrillators (AED) training. Documentation of training must be submitted to the Center for Professional Development before you begin your student teaching.

Obtain the application and due dates to student teach at the Center for Professional Development's webpage. All coursework and other program requirements must be completed before beginning student teaching.

Prior to placements in practicum or internship, students may be required to complete a universal background check, the Child Protective Service Central Registry Release of Information (032-02-1515/1), and a fingerprint check by the school division. Students may be liable for all costs incurred. Candidates must adhere to guidelines outlined in the field experience handbook and located at the Center for Professional Development's webpage.

B.S. IN EARLY CHILDHOOD EDUCATION -- CHILD CARE (NON-TEACHING CERTIFICATION OPTION)

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
CSC 150	Computer Literacy	3
ECE 110	Introduction to the Profession	2
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 100	History of World Societies, Part 1	3
HIS 102	United States History to 1865	3
MTH 103	Mathematics in General Education	3
MTH 102 OR MTH 105	Essentials of Algebra or Intermediate Algebra	3
PED 100	Fundamental Fitness for Life	1
SCI 101	Introduction to Physical Science	3
PHY 100L	Physical Science Lab or CHM 100L	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		37

SECOND YEAR

COURSE	COURSE TITLE	HOURS
EDU 201	FOUNDATIONS OF EDUCATION	3
ENG 203	Advanced Communication Skills	3
ECE 232	Creative Activities for Children	3
HUM 210	Humanities	3
PSY 210	Introduction to Psychology	3
PSY 228	Developmental Psychology	3
EED 274	The Study of Young Children	3
SCM 285	Principles of Speech	3
ENG 383	African American English	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		27

SUMMARY OF GRADUATION REQUIREMENTS
STUDENTS MUST MAKE A GRADE OF "C" OR BETTER IN ALL COURSES.

THIRD YEAR

COURSE	COURSE TITLE	HOURS
ECE 375	CHILDREN'S DRAMA	3
ECS 300	Introduction to Early Childhood Special Education	3
ECE 224	Children's Literature for Early Childhood Education	3
ECE 360	Curriculum and Instruction for Primary Grades (Pre K-3 rd)	3
ECE 362	Math for Young Children	3
EED 233	Critical Thinking and Assessment	3
ECE 370	Analyzing the Behavior of Children	3
SWK 327	Interviewing Techniques	3
XXX XXX	Electives	8
TOTAL HOURS REQUIRED		32

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
INT 350	TRENDS AND ISSUES OF DIVERSE POPULATIONS	3
EED 450	Teaching Literacy in Elementary Schools	3
ECE 420	Parent Education	3
ECE 460	Organization and Administration of Child Care Programs	3
ECE 495	Practicum (Child Care Settings)	9
XXX XXX	Cultural Elective	3
TOTAL HOURS REQUIRED		24

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	38
Electives	8
Other Requirements	34
TOTAL DEGREE HOURS REQUIRED	120

EARLY CHILDHOOD/PRIMARY CERTIFICATION ENDORSEMENT PREK-3 WITH A B.A. IN PSYCHOLOGY

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100L	BIOLOGICAL SCIENCE LAB	1
BIO 100	Biological Science	3
CLS 150	Computer Literacy	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 103	United States History 1865 to the Present	3
MTH 103	Mathematics in General Education	3
MTH 105	Intermediate Algebra	3
PED 100	Fundamental Fitness for Life	1
SCI 101	Introduction to Physical Science	3
PHY 100L	Physical Science Lab or CHM 100L	1
PSY 210	Introduction Psychology	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		35

SECOND YEAR

COURSE	COURSE TITLE	HOURS
EDU 201	FOUNDATIONS OF EDUCATION	3
ENG 203	Advanced Communication Skills	3
ENG 207	Literature in the Western World	3
HUM 210	Humanities	3
PSY 211	Basic Principles of Psychology	3
ECE 274	Study of Young Children	3
PSY 270	Statistics of Psychology	3
SCI 381	Science for Elementary Teachers	3
SCI 381L	Science for Elementary Teachers Lab	1
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		28

SUMMARY OF GRADUATION REQUIREMENTS

NOTE: STUDENTS MUST PASS PRAXIS I (or equivalent) AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HOURS.

THIRD YEAR

COURSE	COURSE TITLE	HOURS
ECE 324	CHILDREN'S LITERATURE FOR EARLY CHILDHOOD EDUCATION	3
ECE 362	Math for Young Children	3
EED 360	Curriculum and Instruction for Primary Grades	3
INT 350	Trends and Issues of Diverse Populations	3
MTH 141	Math for Elementary Teachers	3
PSY 312	Behavioral Analysis	3
PSY 313	Behavioral Management	3
PSY 322	Psychology of Exceptional Children	3
PSY 360	Experimental Psychology	3
PSY 360L	Experimental Psychology	1
TOTAL HOURS REQUIRED		28

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
ECE 470	METHODS OF TEACHING SOCIAL STUDIES FOR YOUNG CHILDREN	3
PSY 492	Psychology Seminar	3
ECS 300	Introduction to Early Childhood Special Education	3
EED 450	Teaching Literacy in Elementary Schools	3
ECE 420	Parent Education	3
PSY 340	Psychology of African Americans	3
ECE 497	Student Teaching	12
TOTAL HOURS REQUIRED		30

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	0
Other Requirements	27
TOTAL DEGREE HOURS REQUIRED	121

EARLY CHILDHOOD FOR THREE-AND FOUR-YEAR-OLDS (ADD-ON ENDORSEMENT)

8VAC20-542-90

For students who want to be licensed to teach PK-3 *AND* three and four year olds the following three graduate level courses *CAN* be taken:

COURSE	COURSE TITLE
EDU 605	HUMAN GROWTH AND DEVELOPMENT
ECS 683	Intervention Strategies for HighRisk Children
ECS 626	Parent Participation in Education Systems

Note: Students must have passing Praxis CORE/SAT/ACT scores, for entrance into the teacher education program (*prerequisite). Students must pass Praxis II, the Virginia Communication and Literacy Assessment and the Reading for Virginia Educators (RVE) to enter student teaching and exit the program.

Students seeking the 3 and 4 year old add on licensure must be admitted into our graduate program as a non-degree seeking student.

Elementary Education Endorsement (PreK-6) with a B.A. in Psychology

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE	3
BIO 100L	Biological Science Lab	1
SCI 101	Introduction to Physical Science	3
CHM 100L	Chemistry or PHY 100L	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
HIS 103	United States History 1865 to the Present	3
MTH 103	Mathematics in General Education	3
MTH 105	Intermediate Algebra	3
PED 100	Fundamentals of Fitness for Life	1
PSY 210	Introduction to Psychology	3
IUL 101	Introduction to University Life	3
	TOTAL HOURS REQUIRED	35

SECOND YEAR

COURSE	COURSE TITLE	HOURS
EDU 201	FOUNDATIONS OF EDUCATION	3
ENG 203	Advanced Communication Skills	3
ENG 207	Literature of Western World	3
HUM 210	Humanities	3
PSY 211	Basic Principles of Psychology	3
EDU 486	Human Growth and Development or PSY 228	3
PSY 270	Statistics in Psychology or PSY 370	3
SCI 381	Science for Teachers	3
SCI 381L	Science for Teachers Lab	1
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
	TOTAL HOURS REQUIRED	28

SUMMARY OF GRADUATION REQUIREMENTS

NOTE: STUDENTS MUST PASS PRAXIS I (or equivalent) AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HOURS.

THIRD YEAR

COURSE	COURSE TITLE	HOURS
EED 360	CURRICULUM AND INSTRUCTION FOR PRIMARY GRADES (PRE K-3)	3
EED 450	Teaching Literacy in the Elementary Schools	3
EED 461	Curriculum and Instruction for Elementary School (4-6)	3
EED 465	Methods and Materials for Teaching Science, Mathematics and Technology	3
MTH 141	Mathematics for Elementary Teachers I	3
MTH 142	Mathematics for Elementary Teachers II	3
PSY 360/PSY 360L	Experiential Psychology and Lab	4
PSY XXX	Psychology Electives	9
	TOTAL HOURS REQUIRED	31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
EED 470	METHODS OF TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL	3
EED 490	Diagnostic Reading	3
EED 499	Directed Teaching	12
INT 350	Trends and Issues of Diverse Populations	3
PSY 340	Psychology of African Americans	3
PSY 492	Psychology Seminar	3
	TOTAL HOURS REQUIRED	27

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	45
Electives	9
Other Requirements	27
TOTAL DEGREE HOURS REQUIRED	121

Elementary Education Endorsement (PreK-6) with a B.S. in Interdisciplinary Studies

ENGLISH CURRICULUM

(FOR PERSONS WHO DO NOT HAVE A B.S. OR B.A. DEGREE)

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE OR BIO 110 OR SCI 101	6
CSC 150	Computer Literacy or CLS 165, TED 170	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 102	United States History to 1865	3
MTH 103	Mathematics in General Education	3
MTH 105	Intermediate Algebra	3
PED 100	Fundamentals Fitness for Life	1
PHY 100L	Physical Science Lab or BIO 100L or CHM 100L	2
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
EDU 201	FOUNDATIONS OF EDUCATION	3
ENG 203	Advanced Communication Skills	3
ENG 207	Literature of the Western World	3
FIA 301	Art or MUS 301 Music Appreciation	3
HIS 335	African-American History, Part 1 or HIS 336, HIS 371, POS 315, PSY 340	3
HUM 210	Humanities	3
INT 308	Introduction to Interdisciplinary Studies	3
MTH 141	Teaching Mathematics in the Elementary School	3
MTH 142	Teaching Mathematics in the Elementary Schools	3
EDU 486	Human Growth and Development or PSY 228	3
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		33

THIRD YEAR

COURSE	COURSE TITLE	HOURS
EED 360	Curriculum and Instruction for Primary Grades (PreK-3 rd)	3
EED 450	Teaching Literacy in the Elementary School	3
EED 465	Methods of Teaching Science, Mathematics, and Technology	3
EED 470	Methods of Teaching Social Studies in the Elementary School	3
ENG 306	Literary Criticism	3
ENG 315	Survey of English Literature	3
ENG 341	Survey of American Literature	3
INT 322	Approaches to Critical Analysis	3
INT 375	Language and Society	3
INT 360	Research Interdisciplinary Studies	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
EED 461	Curriculum and Instruction for Elementary School (Grades 4-6)	3
EED 490	Diagnostic Reading and Perspective Reading	3
ENG 452	Literature for Children and Adolescence	3
INT 350	Trends and Issues with Diverse Populations	3
SCI 381	Science for Teachers	3
SCI 381L	Science for Teachers Lab	1
EED 499	Directed Teaching	12
TOTAL HOURS REQUIRED		28

SUMMARY OF GRADUATION REQUIREMENTS

NOTE: STUDENTS MUST PASS PRAXIS I (or equivalent) AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HOURS.

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	13
Other Requirements	16
TOTAL DEGREE HOURS REQUIRED	123

Elementary Education Endorsement (PreK-6) with a B.S. in Interdisciplinary Studies

HISTORY CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE OR BIO 110 OR SCI 101	6
CSC 150	Computer Literacy or CLS 165 or TED 170	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 102	United States History to 1865	3
MTH 103	Mathematics in General Education	3
MTH 105	Intermediate Algebra	3
PED 100	Fundamentals of Fitness for Life	1
PHY 100L	Physical Science Lab or BIO 100L or CHM 100L	2
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
MTH 141	Teaching Mathematics in the Elementary Schools	3
MTH 142	Teaching Mathematics in the Elementary Schools	3
ENG 203	Advanced Communication Skills	3
ENG 207	Literature of the Western World	3
SCM 285	Principles of Speech	3
HUM 210	Humanities	3
EDU 201	Foundations of Education	3
FIA 301	Art Appreciation or MUS 301	3
POS 315	Blacks in American Political Process or PSY 340 or HIS 335 or HIS 336 or HIS 371	3
EDU 486	Human Growth and Development or PSY 228	3
INT 308	Introduction to Interdisciplinary Studies	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		33

THIRD YEAR

COURSE	COURSE TITLE	HOURS
INT 360	Research Interdisciplinary Studies	3
INT 375	Language and Society	3
HIS 328	History of Virginia	3
ECN 211	Principles of Microeconomics	3
GEO 130	Principles of Geography	3
INT 322	Approaches to Critical Analysis	3
EED 360	Curriculum and Instruction for Primary Grade (Pre K-3 rd)	3
EED 470	Methods of Teaching Social Studies in the Elementary School	3
EED 450	Teaching Reading in the Elementary School	3
EED 465	Methods of Teaching Science, Mathematics, and Technology	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
SCI 381	Science for Teachers	3
SCI 381L	Science for Teachers Lab	1
EED 461	Curriculum and Instruction for Elementary School (Grades 4-6)	3
EED 490	Diagnostic Reading	3
HIS 439	Recent American History from 1932 to Present	3
INT 350	Trends and Issues with Diverse Population	3
EED 499	Student Teaching	12
TOTAL HOURS REQUIRED		28

SUMMARY OF GRADUATION REQUIREMENTS

NOTE: STUDENTS MUST PASS PRAXIS I (or equivalent) AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HOURS.

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	13
Other Requirements	16
TOTAL DEGREE HOURS REQUIRED	123

Elementary Education Endorsement (PreK-6) with a B.S. in Interdisciplinary Studies

MATHEMATICS CURRICULUM

(FOR PERSONS WHO DO NOT HAVE A B.S. OR B.A. DEGREE)

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE OR BIO 110 OR SCI 101	6
CSC 150	Computer Literacy or CLS 165 or TED 170	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 102	United States History to 1865	3
MTH 105	Intermediate Algebra	3
MTH 151	College Algebra	3
PED 100	Fundamentals of Fitness for Life	1
PHY 100L	Physical Science Lab or BIO 100L or CHM 100L	2
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
EDU 201	FOUNDATIONS OF EDUCATION	3
ENG 203	Advanced Communication Skills	3
ENG 207	Literature of the Western World	3
FIA 301	Art or Music Appreciation or MUS 301 or POS 315	3
HUM 210	Humanities	3
INT 308	Introduction to Interdisciplinary Studies	3
MTH 141	Teaching Mathematics in the Elementary Schools	3
MTH 142	Teaching Mathematics in the Elementary Schools	3
POS 315	or PSY 340 or HIS 335 or HIS 336 or HIS 371	3
EDU 486	Human Growth and Development or PSY 228	3
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		33

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CSC 169	FOUNDATIONS OF COMPUTERS	3
EED 360	Curriculum and Instruction for Primary Grades (PreK-3 rd)	3
EED 450	Teaching Literacy in the Elementary School	3
EED 465	Methods of Teaching Science, Mathematics, and Technology	3
EED 470	Methods of Teaching Social Studies in the Elementary School	3
INT 322	Approaches to Critical Analysis	3
INT 360	Research Interdisciplinary Studies	3
INT 375	Language and Society	3
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus	4
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
CSC 170	COMPUTER PROGRAMMING	3
EED 461	Curriculum and Instruction for Elementary School (Grades 4-6)	3
EED 490	Diagnostic Reading and Perspective Reading	3
EED 499	Directed Teaching	12
INT 350	Trends and Issues with Diverse Populations	3
SCI 381	Science for Teachers	3
SCI 381L	Science for Teachers Lab	1
TOTAL HOURS REQUIRED		28

SUMMARY OF GRADUATION REQUIREMENTS

NOTE: STUDENTS MUST PASS PRAXIS I (or equivalent) AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HOURS.

SUBJECT AREA	HOURS
General Education Core	41
Major Requirements	54
Electives	13
Other Requirements	16
TOTAL DEGREE HOURS REQUIRED	124

Special Education General Curriculum K-12 with a B. A. in Psychology

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
CSC 150	Computer Concepts & Applications	3
HED 100	Personal and Community Health	2
HIS 102	United States History to 1865 or HIS 103 United States History 1865 to the Present	3
MTH 103	Mathematics in General Education	3
PED 100	Fundamentals of Fitness for Life	1
SCI 101	Introduction to Physical Science	3
PSY 201	Introduction to Psychology	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
FIA 301	ART APPRECIATION OR MUS 301	3
EDU 201	Foundations of Education	3
ENG 299	Writing Competency Exam	0
PED 365	Adapted Physical Education	3
PSY 211	Basic Principles of Psychology	3
PSY 220	Child Psychology or PSY 225	3
PSY 322	Psychology of Exceptional Children	3
PSY 270	Statistics in Psychology	3
PSY 280	Abnormal Psychology	3
SCM 285	Principles of Speech	3
XXX XXX	Elective	3
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
EED 490	Language Acquisition and Reading Procedures	3
HIS 371	African History & Culture	3
EDU 486	Human Growth and Development	3
PSY 360/ PSY 360L	Experimental Psychology wth Lab	4
PSY 381	Topics in Psychology	3
SPE 321	Characteristics, Medical and Legal Aspects	3
SPE 332	Curriculum and Instructional Procedures for Teaching Students with Mild Disabilities	3
SPE 312	Behavior Management	3
SPE 344	Teaching Reading to Exceptional Learners	3
SED 420	Educational Technology	3
XXX XXX	Elective	3
TOTAL HOURS REQUIRED		34

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
SPE 440	Transition/Collaboration Procedures	3
SPE 492	Assessment of Exceptional Students	3
PSY 390	Fundamentals of Learning	3
PSY 492	Psychology Seminar	3
SPE 499	Directed Teaching	12
TOTAL HOURS REQUIRED		27

SUMMARY OF GRADUATION REQUIREMENTS

NOTE: STUDENTS MUST PASS PRAXIS I (OR EQUIVALENT) AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HOURS.

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	36
Electives	6
Other Requirements	40
TOTAL DEGREE HOURS REQUIRED	122

Special Education General Curriculum K-12 with a B.S. in Interdisciplinary Studies

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
CSC 150	Computer Concepts & Applications	3
HED 100	Personal and Community Health	2
HIS 102	U.S. History to 1865 or HIS 103 United States History 1865 to the Present	3
MTH 103	Mathematics in General Education	3
PED 100	Fundamentals of Fitness for Life	1
SCI 101	Introduction to Physical Science	3
PSY 210	Introduction to Psychology	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
FIA 201	ART APPRECIATION OR MUS 301	3
EDU 201	Foundations of Education	3
ENG 207	Introduction to World Literature	3
ENG 299	Writing Competency Exam	0
INT 308	Introduction to Interdisciplinary Studies	3
PED 365	Adapted Physical Education	3
PSY 211	Basic Principles of Psychology	3
INT 322	Approaches to Critical Analysis	3
PSY 280	Abnormal Psychology	3
SCM 285	Principles of Speech	3
PSY 322	Psychology of Exceptional Children	3
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
EED 490	Language Acquisition and Reading Procedures	3
HIS 371	African History and Culture	3
INT 360	Research in Interdisciplinary Studies	3
INT 375	Language and Society	3
SPE 312	Behavior Management	3
PSY 381	Topics in Psychology	3
SPE 321	Characteristics, Medical and Legal Aspect in Special Education	3
SED 420	Educational Technology	3
SPE 344	Teaching Reading to Exceptional Learners	3
SPE 332	Curriculum & Instructional Procedures for Teaching Students with Mild Disabilities	3
EDU 486	Human Growth and Development	3
TOTAL HOURS REQUIRED		33

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
SPE 440	Collaboration & Transition Procedures	3
INT 322	Approaches to Critical Analysis	3
INT 411	Ideas and Their Influences	3
PSY 390	Fundamentals of Learning	3
SPE 492	Assessment of Exceptional Students	3
SPE 499	Directed Teaching	12
TOTAL HOURS REQUIRED		27

SUMMARY OF GRADUATION REQUIREMENTS

NOTE: STUDENTS MUST PASS PRAXIS I (or equivalent) AND APPLY FOR ADMISSION TO TEACHER EDUCATION AT THE END OF 60 HOURS.

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	33
Other Requirements	48
TOTAL DEGREE HOURS REQUIRED	121

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION AND EXERCISE SCIENCE

Dr. 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 PreK-12
- Health Fitness Instructor
- Kinesiotherapy

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 food science and nutrition program track under the kinesiotherapy emphasis prepares students to be dietitians (management and clinical) or nutrition educators. Graduates are prepared to take the registration examination for dietitians or enter into graduate study in the field.

B.S. in Exercise Science/Health and Physical Education

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100/ BIO 100L	Biological Science and Lab	4
CSC 150	Computer Concepts and Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 170	Personal and Community Health	3
HIS 100	History or HIS 101, 102, 103	3
MTH 103	Mathematics in General Education	3
PED 151	Rhythm and Folk Dance or PED 152	1
PED 158	Fundamentals of Physical Education or PED 159	1
PED 280	Introduction to Physical Education	3
SOC 101	Introduction to Social Sciences	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
EDU 201	FOUNDATIONS OF EDUCATION	3
HED 442	General Safety Education	3
HUM 210	Humanities I or MUS 301/324 or FIA 201/ FIA 207	3
HUM 211	Humanities II or ENG 207/383	3
PED 133	Beginning Swimming	1
PED 251	Modern Dance I	1
PED 253	Gymnastics	1
PED 261	Team Sports	1
PED 262	Team Sports	1
PED 287	Human Anatomy or BIO 165	3
PED 287L	Human Anatomy Lab or BIO 165L	1
PED 288	Human Physiology or BIO 166	3
PED 288L	Human Physiology Lab or BIO 166L	1
PSY 228	Developmental Psychology	3
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

THIRD YEAR

COURSE	COURSE TITLE	HOURS
HED 368A*	Curriculum and Methods in Health Education	3
PED 271	Individual Sports or PED 272	1
PED 335	Techniques and Skills in Health and Physical Education	2
PED 350*	Curriculum and Instructional Procedures in Elementary Health and Physical Education	3
PED 356	Kinesiology	3
PED 357	Organization and Administration of Physical Education Programs	2
PED 362	Coaching and Officiating	2
PED 365	Adapted Physical Education	3
PED 369	Research Methods and Statistical Evaluations	3
PED 450	Motor Learning	3
PED 477	Physiology of Muscle Exercise	3
SED 405	Reading in the Content Areas	3
TOTAL HOURS REQUIRED		32

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
HRP 290	African-American Health or Cultural Elective (HIS 33X, POS 315, PSY340, SOC 237)	3
PED 358*	Curriculum and Instructional Procedures in Teaching Physical Education in Secondary Schools	3
PED 480	Principles of Physical Education	3
SED 486	Educational Psychology and Behavior	3
EDU 381*	Classroom and Behavior Management	3
SED 499*	Directed Student Teaching and Seminar Directed Teaching in Secondary Schools	12
TOTAL HOURS REQUIRED		27

SUMMARY OF GRADUATION REQUIREMENTS

* MUST PASS PRAXIS I BEFORE ENROLLMENT WILL BE PERMITTED

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

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	52
Electives	0
Other Requirements	28
TOTAL DEGREE HOURS REQUIRED	123

B.S. in Exercise Science/Health and Physical Education

Students are strongly advised to take: PED 179 First Aid or American Red Cross equivalent 2 Credits.

HEALTH ENDORSEMENT

COURSE	COURSE TITLE	HOURS
FSN 110	The Science of Human Nutrition	3
PED 179	First Aid	2
PED 200	Beginning Fitness through Weight Training or PED 300	2
HED 170	Personal and Community Health	3
HED 368A	Curriculum and Methods in Health Education	3
HED 442	General Safety Education	3
FSN 449	Nutrition I Sports and Fitness	3

DRIVER EDUCATION ENDORSEMENT

COURSE	COURSE TITLE	HOURS
PED 441	Driver Task Analysis	3
PED 444	Principles and Methods of Classroom and In-car Instruction	3
Department Requirement – PED 179 or Red Cross Equivalent		2

Enrollment requires completion of Requirements for admission to teacher education

Mathematics (5732) subtest or equivalent SAT or ACT test scores. A composite score of 470 on the VCLA with subtest scores of at least 235 on writing and 235 on reading may be combined with a qualifying score of 150 on the mathematics portion of the Praxis Core Academic Skills for Educators Test.

MEETING THE PRAXIS REQUIREMENT

Effective January 1, 2014, the following assessments are required for all candidates who are seeking a license to teach.

Praxis Core Academic Skills for Educators Tests include Reading (5712), Writing(5722), and Mathematics (5732). These tests require a passing score for each of the three subtests. There is not a composite passing score for the assessments. If a passing score is not obtained on each subtest, a subtest may be retaken as a stand-alone test. The passing score on the reading subtest is 156; writing 162; and mathematics 150.

SAT as a substitute for Praxis Core requires a score of 1000 with at least 450 on the verbal and 510 on the mathematics test if taken prior to April 1, 1995. After April 1, 1995 a score of 1100 with at least 530 on the verbal and 530 on the mathematics tests is required.

ACT as a substitute for Praxis Core requires a composite score of 21 with the ACT mathematics score no less than 21 and an ACT English Plus Reading score no less than 37 if taken prior to April 1, 1995. After April 1, 1995 a composite score of 24 with the ACT mathematics score no less than 22 and an ACT English Plus Reading score no less than 46.

Virginia Communication and Literacy Assessment (VCLA) as a substitute for Praxis (reading and writing) can be used to meet the Praxis requirement along with the Praxis Core Academic Skills for Educators:

ADMISSION TO TEACHER EDUCATION GUIDELINES

Students applying for admission to the teacher education program must have a minimum 2.5 grade point average with no grade below a C and must have passed Praxis I or the equivalent tests. Applicants are required to complete a portfolio that contains two letters of recommendation, a copy of their philosophy of education, an update on any disposition documents on file, as well as participate in an interview, and meet any other requirements as outlined in the guidelines provided at Center for Professional Development webpage

<https://www.nsu.edu/education/cpd/index>

Students are to be admitted to teacher education prior to enrolling in any professional education observation participation course. Students must continue to maintain a 2.5 GPA and earn at least a grade of "C" for continuance I the teacher education program.

OBSERVATION, OBSERVATION PARTICIPATION, FIELD PLACEMENTS AND CLINICAL PRACTICE

The introductory course, Foundations of Education has an observation experience that is designed to help students decide if teaching is the right choice for them. All methods of teaching courses have an observation participation requirement that must be met in an appropriate, licensed setting. Students are required to

have current negative TB test results and a current background verification form in order to request field experience placements. Students must pass Praxis I and meet the requirements for admission to teacher education before participating in an observation-participation field experience. A provisionally licensed teacher may participate in observation participation if s/he has a letter from the Virginia Department of Education listing the course as a needed requirement and has passing VCLA scores.

TEACHER EDUCATION ASSESSMENTS AND APPLYING TO STUDENT TEACH OR THE PRACTICUM

In order to student teach and obtain a Virginia teaching license, all teacher education students must attain passing scores on the appropriate teacher licensure assessments.

It is recommended that the VCLA be taken after students have completed their English and reading course requirements.

The RVE is required for licensure and should be taken after all reading courses have been completed, if applicable.

Candidates should take the Exit Examination of Writing Proficiency after completing the English courses.

Candidates must receive training on the recognition of child abuse and neglect in the designated course and keep the certificate to submit with the licensure application.

Candidates are required to pass the appropriate Praxis II specialty area assessment with scores established by the Virginia Department of Education.

Candidates are required to complete the Emergency First Aid, Cardiopulmonary Resuscitation (CPR) and Use of Automated External Defibrillators (AED) training. Documentation of training must be submitted to the Center for Professional Development before you begin your student teaching. Obtain the application and due dates to student teach at the Center for Professional Development's webpage. All coursework and other program requirements must be completed before beginning student teaching.

Prior to placements in practicum or internship, students may be required to complete a universal background check, the Child Protective Service Central Registry Release of Information (032-02-1515/1), and a fingerprint check by the school division. Students may be liable for all costs incurred. Candidates must adhere to guidelines outlined in the field experience handbook and located at the Center for Professional Development's webpage.

B.S. in Exercise Science/Health and Physical Education – Health Fitness Instructor

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 110/ BIO 110L	BIOLOGICAL SCIENCE AND LAB OR BIO 100/ BIO 100L	4
CSC 150	Computer Concepts and Applications or CLM 165, BAD 184, FIA 280, TED 170	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 170	Personal and Community Health	3
HIS 100	History or HIS 101, HIS 102, HIS 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
SOC 101	Introduction to Social Science	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		34

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CHM 215	CHEMISTRY	3
CHM 215L	Chemistry Lab	1
HUM 210	Humanities I	3
FSN 110	Science of Human Nutrition	3
HUM 211	Humanities II or ENG 207, ENG 383	3
PED 107	Aerobics	1
PED 179	First Aid	2
PED 158/159	Fundamentals of Physical Education	1
PED 251	Modern Dance	1
PED 261/262	Team Sports	1
PED 287	Anatomy and Physiology I or BIO 165	3
PED 287L	Anatomy and Physiology I Lab Or BIO 165L	1
PED 288	Anatomy and Physiology II or BIO 166	3
PED 288L	Anatomy and Physiology II Lab or BIO 166L	1
PSY 228	Developmental Psychology	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

COURSE	COURSE TITLE	HOURS
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THIRD YEAR

EXS 237	CARE AND PREVENTION OF ATHLETIC INJURIES	3
HIS 335	History	3
EXS 363	Clinical Aspects of Aging	2
EXS 369	Evaluation in Physical Education	3
EXS 380	Stress Management	3
EXS 477	Exercise Physiology	3
EXS 477L	Exercise Physiology Lab	1
PED 271/272	Individual/Dual Sport	1
PED 356	Kinesiology	3
PED 357	Organization and Administration of Physical Educational Programs	3
PED 358	Curriculum and Instructional Procedures in Teaching Physical Education in Secondary Schools	3
PED 365	Adapted Physical Education	3
SCM 285	Principle of Speech	3
TOTAL HOURS REQUIRED		34

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
PED 300	ADVANCED WEIGHT TRAINING	2
PED 450	Motor Learning	3
PED 451	Sport Psychology	3
PED 495	Internship (Local)	3
PED 496	Internship	12
PED 109	Water Aerobics	1
XXX XXX	Electives	2
TOTAL HOURS REQUIRED		26

**SUMMARY OF GRADUATION
REQUIREMENTS**

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	3
Other Requirements	24
TOTAL DEGREE HOURS REQUIRED	124

B.S. in Exercise Science/Health and Physical Education – Health Fitness Instructor

ELECTIVES

INDIVIDUAL SPORT/TEAM SPORTS

COURSE	COURSE TITLE	HOURS
PED 158	Fundamentals of Physical Education or PED 159	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	Team Sports or PED 262	1
PED 271	Individual/Dual Sports or PED 272	1

HEALTH CONTENT

COURSE	COURSE TITLE	HOURS
HED 368A	Curriculum and Methods in Health Education	3
HED 442	Safety	3
FSN 449	Nutrition/Sports Fitness	3

AQUATICS

COURSE	COURSE TITLE	HOURS
PED 134	Advanced Beginning Swimming	1
PED 235	Intermediate Swimming	1
PED 325	Lifesaving	1

RHYTHMS

COURSE	COURSE TITLE	HOURS
PED 107	Aerobics	1
PED 109	Water Aerobics	1
PED 251	Modern Dance	1
PED 254	Jazz Dance	1

B.S. in Exercise Science/Health and Physical Education -- Kinesiotherapy

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE	3
BIO 100L	Biological Science Lab	1
CHM 215	Chemistry	3
CHM 215L	Chemistry Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
EXS 170	Introduction to Exercise Science	3
EXS 265	Therapeutic Exercises and Sports I	2
EXS 266	Therapeutic Exercises and Sports II	2
HED 170	Personal and Community Health	3
HIS 100	History of World Societies, Part 1 or HIS 101 or HIS 102 or HIS 103	3
MTH 153	College Algebra and Trigonometry	3
PED 133	Swimming or PED 134	1
SOC 101	Introduction to Social Science	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		37

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CSC 150	COMPUTER CONCEPTS AND APPLICATIONS OR CLM 165 OR BAD 184 OR FIA 280 OR TED 170	3
EXS 237	Care and Prevention of Athletic Injuries (Internship hours 100 Orthopedics)	3
HIM 120	Medical Terminology	3
HUM 210	Humanities I or MUS 301/234, FIA 201/207	3
HUM 211	Humanities II or ENG 207/383	3
PED 287	Anatomy and Physiology I	3
PED 287L	Anatomy and Physiology I Lab	1
PED 288	Anatomy and Physiology II	3
PED 288L	Anatomy and Physiology II Lab	1
PHY 152	General Physics	3
PHY 152L	General Physics Lab	1
PSY 210	Introduction to Psychology	3
PSY 228	Developmental Psychology (Internship hours 100 Pediatrics)	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		33

THIRD YEAR

COURSE	COURSE TITLE	HOURS
EXS 355	Anatomical Kinesiology	3
EXS 356	Biomechanics of Human Motion (Internship hours 100 Orthopedics)	3
EXS 357	Organization and Administration in Exercise Science	3
EXS 369	Research Methods and Statistical Evaluation or PED 369	3
EXS 447	Exercise Physiology	3
EXS 447L	Exercise Physiology Lab	1
FSN 110	Introduction to Nutrition	3
PED 365	Adapted Physical Education	3
PSY 280	Abnormal Psychology (Internship hours 100 Psychiatry)	3
PSY 380	Physiology Psychology	3
SCM 285	Principles of Speech	3
TOTAL HOURS REQUIRED		33

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
EXS 363	CLINICAL ASPECTS OF AGING (INTERNSHIP HOURS 100 GERIATRIC)	2
EXS 483	Clinical Kinesiology I	3
EXS 484	Clinical Kinesiology II	3
EXS 430	Neurological and Pathological (Internship hours 100 Neurology)	3
EXS 445	Therapeutic Modalities	3
EXS 493E	Clinical Internship (200 hours Cardiac)	6
EXS 493F	Clinical Internship (200 hours Clinical Specialization--Total 1000 hours)	6
PED 450	Motor Learning	3
EXS 380	Stress Management	
TOTAL HOURS REQUIRED		32

NOTE: Communication and Literacy Assessment to exit the program (EXE/HPE). Students must pass Praxis I, for entrance into the teacher education program. Students must pass Praxis II and the Virginia

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	77
Electives	3
Other Requirements	9
TOTAL DEGREE HOURS REQUIRED	135

DEPARTMENT OF SECONDARY EDUCATION AND SCHOOL LEADERSHIP

Dr. Norma W. Brumage, Department Head
(757) 823-2225

The Department of Secondary Education and School Leadership offers multi-dimensional Urban Education degree programs and teacher education to assist in-service and pre-service school practitioners interested in acquiring state-endorsements as well as enhancing their professional development.

Teacher Licensure Endorsement in Secondary Education

1. Candidates must take the General Education Core before applying to teacher education (see the Center for Professional Development regarding admission to teacher education.)

2. Students must earn an undergraduate degree in

the field in which they plan to teach.

- Art/Fine Arts
- Biology
- Business
- Chemistry
- English
- Health and Physical Education
- History and Social Science
- Mathematics
- Music/Instrumental
- Music/Vocal
- Physics

Prior to admission to teacher education, students must pass the Praxis CORE/SAT/ACT examination or its equivalent, obtain a 2.5 grade point average, and successfully complete 200-level professional education courses:

COURSE	COURSE TITLE
EDU 201	Foundations of Education
SED 233	Seminar in Assessment and Evaluation (Only for candidates who have not passed PRAXIS CORE/SAT/ACT)

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.)

COURSE	COURSE TITLE	HOURS
EDU 381	Classroom and Behavior Management	3
SED 390*	Curriculum and Instructional Procedures for Secondary History and Social Science (History and Social Science Majors Only)	3
SED 384	Curriculum and Instructional Procedures for Mathematics/Science/Technology (Mathematics/Science/Technology Majors)	3
SED 498	Curriculum and Instructional Procedures for Business and Information Technology (Business Education Majors)	3
SED 405	Reading in the Content Areas	3
SED 420	Educational Technology	3
SED 486	Educational Psychology and Behavior Management	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.

B.S. in Business Education

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BUS 175	Introduction to Business and Entrepreneurship	3
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 131	Pre-calculus 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
IUL 101	Introduction to University Life	3
XXX XXX	Natural Science Elective (Note A)	6
XXX XXXL	Natural Science Lab Elective (Note B)	1
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ACC 201	PRINCIPLES OF FINANCIAL ACCOUNTING	3
ACC 202	Introduction to Managerial Accounting	3
ECN 211	Principles of Microeconomics I	3
ENG 210	Practical English Grammar	3
EDU 201	Foundations of Education	3
PSY 201	Introduction to Psychology	3
MIS 284	Advanced Microcomputing	3
SCM 285	Principles of Speech	3
SED 210	Keyboarding III	3
XXX XXX	Humanities (See Note D)	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BUS 330	BUSINESS COMMUNICATION	3
CSC 160	Visual Basic Programming or CSC 169 Intro to Computer Science	3
BUS 281	Legal Environment of Business	3
MKG 366	Principles of Marketing	3
POS 350	Organization Theory and Behavior	3
SCM 310	Speech for the Classroom Teacher	3
SED 324	Business Systems and Procedures	3
EDU 381	Classroom Behavior Management	3
SED 233	Seminar in Assessment and Evaluation	3
XXX XXX	No-Business Elective	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
SED 405	Reading in the Content Area	3
SED 420	Educational Technology	3
PSY 228	Developmental Psychology	3
SED 498	Curriculum and Instructional Procedures for Business and Information Technology	3
SED 499	Directed Teaching	12
XXX XXX	Global/Cultural and Language Electives (See Note D)	6
TOTAL HOURS REQUIRED		30

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	78
Electives	3
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	121

LIST OF NOTES FOR SECONDARY EDUCATION AND SCHOOL LEADERSHIP

NOTE A

A student needs to take the TWO following courses:

COURSE	COURSE TITLE
BIO 100	Biological Sciences
SCI 101	Introduction to Physical Science

NOTE B

A student needs to take ONE (1) of the following laboratory courses. The laboratory course must be in the same area as one of the science lecture courses taken:

COURSE	COURSE TITLE
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

Humanities (3 credit hours)

A student will choose ONE (1) course from the list below.

ENG 207	Introduction to World Literature
ENG 383	African-American Literature
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
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
HUM 210	Humanities
HUM 211	Humanities
MUS 301	Music Appreciation
POS 315	Blacks in American Political Process

COURSE	COURSE TITLE
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/	Elementary French I and II
FRN 112	
GRM 111/	Elementary German I and II
GRM 112	
JPN 111/	Elementary Japanese I and II
JPN 112	
RUS 111/	Elementary Russian I and II
RUS 112	
SPN 111/	Elementary Spanish I and II
SPN 112	

NOTE E

Cultural Perspectives (6 credit hours)

A student will choose ONE (1) course from the list below.

COURSE	COURSE TITLE
ENG 383	African-American Literature
FIA 170	African and African-American Art
MUS 234	African-American Music

A student will choose ONE (1) course from the list below:

COURSE	COURSE TITLE
HIS 335	African-American History, Part I
HIS 336	African-American History, Part II
HIS 370	African History and Culture, Part I
HIS 371	African History and Culture, Part II
JRN 299	Multiculturalism and Mass Media
SOC 237	Racial and Cultural Minorities
POS 315	Blacks in American Political Process
PSY 340	Psychology of African-Americans

NOTE F

Students must pass the PRAXIS I/SAT/ACT Exam prior to enrolling in the following courses:

COURSE	COURSE TITLE
SED 380	Foundations of Methods in Secondary Schools
SED 488	School and Community Relations

SED 498	Curriculum and Instructional Procedures for Business and Information Technology
SED 499	Directed Teaching
SED 405	Reading in the Content Area
SED 420	Educational Technology
SED 486	Educational Psychology and Behavior Management

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.

Students must take THREE (3) of the following courses:

NOTE G

Students must pass the PRAXIS I Exam prior to enrolling in the following courses:

COURSE	COURSE TITLE
EDU 381	Classroom and Behavior Management
SED 405	Reading in the Content Areas
SED 420	Educational Technology
SED 498	Curriculum and Instructional Procedures for Business and Information Technology
SED 499	Directed Teaching

Students must take THREE (3) of the following courses:

COURSE	COURSE TITLE
BUS 175	Introduction to Business and Entrepreneurship
BUS 281	Legal Environment of Business
MKG 366	Principles of Marketing
FNC 360	Corporate Finance
POS 350	Organization Theory and Behavior

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.

COURSE	COURSE TITLE
BUS 175	Introduction to Business and Entrepreneurship
BUS 281	Legal Environment of Business
MKG 366	Principles of Marketing
FNC 360	Corporate Finance
POS 350	Organization Theory and Behavior

MEETING THE PRAXIS REQUIREMENT

Effective January 1, 2014, the following assessments are required for all candidates who are seeking a license to teach.

The Praxis Core Academic Skills for Educators Tests include Reading (5712), Writing (5722), and Mathematics (5732). These tests require a passing score for each of the three subtests. There is not a composite passing score for the assessments. If a passing score is not obtained on each subtest, a subtest may be retaken as a stand-alone test. The passing score on the reading subtest is 156; writing 162; and mathematics 150.

SAT as a substitute for Praxis Core requires a score of 1000 with at least 450 on the verbal and 510 on the mathematics test if taken prior to April 1, 1995. After April 1, 1995 a score of 1100 with at least 530 on the verbal and 530 on the mathematics tests is required.

ACT as a substitute for Praxis Core requires a composite score of 21 with the ACT mathematics score no less than 21 and an ACT English Plus Reading score no less than 37 if taken prior to April 1, 1995. After April 1, 1995 a composite score of 24 with the ACT mathematics score no less than 22 and an ACT English Plus Reading score no less than 46.

Virginia Communication and Literacy Assessment (VCLA) as a substitute for Praxis (reading and writing) can be used to meet the Praxis requirement along with the Praxis Core Academic Skills for Educators: Mathematics (5732) subtest or equivalent SAT or ACT test scores. A composite score of 470 on the VCLA with subtest scores of at least 235 on writing and 235 on reading may be combined with a qualifying score of 150 on the mathematics portion of the Praxis Core Academic Skills for Educators Test.

ADMISSION TO TEACHER EDUCATION GUIDELINES

Students applying for admission to the teacher education program must have a minimum 2.5 grade point average with no grade below a grade of "C" and must have passed Praxis I or the equivalent tests. Applicants are required to complete a portfolio that contains two letters of recommendation, a copy of their philosophy of education, an update on any disposition documents on file, as well as participate in an interview, and meet any other requirements as outlined in the guidelines provided at Center for Professional Development webpage

<https://www.nsu.edu/education/cpd/index>.

Students are to be admitted to teacher education prior to enrolling in any professional education observation participation course. Students must continue to maintain a 2.5 GPA and earn at least a grade of "C" for continuance in the teacher education program.

OBSERVATION, OBSERVATION PARTICIPATION, FIELD PLACEMENTS AND CLINICAL PRACTICE

The introductory course, Foundations of Education has an observation experience that is designed to help students decide if teaching is the right choice for them. All methods of teaching courses have an observation participation requirement that must be met in an appropriate, licensed setting. Students are required to have current negative TB test results and a current background verification form in order to request field experience placements. Students must pass Praxis I and meet the requirements for admission to teacher education before participating in an observation-participation field experience. A provisionally licensed teacher may participate in observation participation if s/he has a letter from the Virginia Department of Education listing the course as a needed requirement and has passing VCLA scores.

TEACHER EDUCATION ASSESSMENTS AND APPLYING TO STUDENT TEACH OR THE PRACTICUM

In order to student teach and obtain a Virginia teaching license, all teacher education students must attain passing scores on the appropriate teacher licensure assessments.

It is recommended that the VCLA be taken after students have completed their English and reading course requirements.

The RVE, if applicable, is required for licensure and should be taken after all reading courses have been completed, if applicable.

Candidates should take the Exit Examination of Writing Proficiency after completing the English courses.

Candidates must receive training on the recognition of child abuse and neglect in the designated course and keep the certificate to submit with the licensure application.

Candidates are required to pass the appropriate Praxis II specialty area assessment with scores established by the Virginia Department of Education.

Candidates are required to complete the Emergency First Aid, Cardiopulmonary Resuscitation (CPR) and Use of Automated External Defibrillators (AED) training. Documentation of training must be submitted to the Center for Professional Development before you begin your student teaching. Obtain the application and due dates to student teach at the Center for Professional Development's webpage. All coursework and other program requirements must be completed before beginning student teaching.

Prior to placements in practicum or internship, students may be required to complete an universal background check, the Child Protective Service Central Registry Release of Information (032-02-1515/1), and a fingerprint check by the school division. Students may be liable for all costs incurred. Candidates must adhere to guidelines outlined in the field experience handbook and located at the Center for Professional Development's webpage.

COLLEGE OF LIBERAL ARTS

Dr. Belinda Anderson, Dean
Dr. Danny Adams, Associate Dean
Dr. Josephine Reid, Assistant Dean
(757) 823-8118

The College 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 College of Liberal Arts as well.

Students in the College of Liberal Arts have access to a wealth of learning experiences. The College 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 College of Liberal Arts are as follows:

1. To provide an intellectually liberating education for students that is conducive to life-long learning.
9. To impart knowledge, strengthen communicative and quantitative abilities, and enhance research and inquiry skills in the various subject matter areas.
10. To develop habits of independent thought and critical thinking.
11. To promote attitudes of understanding, respect, and tolerance for one's own culture and the cultures of other peoples.
12. To engender in students an appreciation of the moral and ethical components of life.
13. To define educational standards that address the changing paradigms and diverse needs of students in a changing global society.
14. To provide a highly qualified pool of graduates for the global workforce.
15. 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 College of Liberal Arts realizes that technological proficiency is an integral component of career preparation and life-long learning. Accordingly, all curricula in the College of Liberal Arts incorporate basic and discipline-appropriate technological instruction.

DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES

Dr. Mamie Johnson, Department Head
(757) 823-8891

The English and Foreign Languages Department aims to develop in students an understanding of language development and of the structure and uses of language in their various written and spoken forms. The Department aims 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, power, and utility of language in varied media. The Department offers its majors opportunities to concentrate in English, English with a Secondary Endorsement, Creative Writing, French Literature and Spanish Literature.

The Foreign Languages program in the Department seeks to develop students' fundamental skills in French, Spanish, and other languages, including Arabic, Chinese, and Japanese, as staff resources permit. It seeks also to generate or broaden student interest in world cultures through language study. For students concentrating in Spanish or French Literature, the Department offers advanced courses leading to careers and professions enhanced by a mastery of Spanish or French language and culture.

ENGLISH REQUIREMENTS

Requirements for the 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 Commonwealth of Virginia include: A minimum of thirty-six semester hours (including ENG 101, ENG 102, American and British literature, language, and related courses). Students in the English degree curriculum, the Spanish Literature concentration, and the French Literature concentration may seek certification to teach in middle and high school.

FOREIGN LANGUAGE REQUIREMENTS

English majors are required to complete 12 credit hours of a foreign language, usually French or Spanish, with a grade of C or better. 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 or French Literature include: An English major may have a concentration in Spanish Literature that consists of 24-39 semester hours beyond SPN 111/112. An English major may have a concentration in French Literature that consists of 24-39 semester hours beyond FRN 111/112. The Department reserves the right to increase or reduce requirements depending upon the potential of the individual student.

ASSESSMENT REQUIREMENTS

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 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.

B.A. in English

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab or Physical Science Lab	1
SCI 101	Introduction to Physical Science	3
CSC 150	Computer Concepts and Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
ENG 114	Techniques of Vocabulary Building	2
FRN 111	Elementary French I or SPN 111	3
FRN 112	Elementary French II or SPN 112	3
HIS 100	History of World Societies, Part 1 or HIS 101, HIS 102 or HIS 103	3
HED 100	Personal and Community Health	2
PED 100	Fundamentals of Fitness for Life	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CSC 200	Advanced Computer Skills	3
ENG 207	Introduction to World Literature	3
ENG 210	Practical English Grammar	3
ENG 286	Advanced Composition	3
FRN 211	Intermediate French I or SPN 211	3
FRN 212	Intermediate French II or SPN 212	3
HUM 210	Humanities I or HUM 211	3
MTH 103	Mathematics in General Education	3
SCM 285	Principles of Speech	3
SOC 101	Introduction to Social Science	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
ENG 306	Introduction to Literacy 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 Literacy Analysis and Interpretation	3
ENG 383	African-American Literature	3
ENG 413	Shakespeare	3
ENG 419	Contemporary American English Grammar	3
XXX XXX	Unrestricted Electives	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
ENG 410	The History of the English Language	3
ENG 412	Chaucer or ENG 430	3
ENG 449	Teaching Composition or ENG 460	3
ENG 450	Research Seminar and Senior Thesis	3
ENG 454	Young Adult Literature	3
ENG 456	Women's Studies or ENG 459	3
XXX XXX	Unrestricted Electives	15
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	65
Electives	15
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	123

Teacher Licensure Endorsement in English and Foreign Languages

Students wishing to pursue a career in teaching must take the following steps:

1. Take ENG 101ED, ENG 102ED, and pass Praxis I freshman year. Then, confer with an academic advisor in the Department of Secondary Education and School Leadership about requirements for admission to the Teacher Education Program.
2. Complete requirements for admission to the Teacher Education Program.
3. Take the following professional education courses, totaling 27 credit hours:

COURSE	COURSE TITLE	HOURS
EDU 201	Foundations of Education	3
EDU 381	Classroom Behavior and Management	3
EDU 486	Human Growth and Development	3
SED 405	Reading in the Content Area	3
SED 387	Classroom and Instructional Procedures in Teaching English in the Secondary School	3
SED 499	Directed Teaching and Seminar	12
TOTAL HOURS REQUIRED		27

Certificate in E-Technical Writing

This certificate program offers courses that enable students to develop and cultivate writing skills for a digital environment and gain technological expertise for high demand and specialized fields in business and industry.

WEEK 1-3

COURSE	COURSE TITLE	HOURS
ENG 304CP	Electronic Research and Technical Writing	3
ENG 305CP	Multimedia Writing	3
TOTAL HOURS REQUIRED		6

WEEK 4-6

COURSE	COURSE TITLE	HOURS
ENG 404CP	Career-Focused Technical Writing	3
ENG 405CP	Professional Presentation	3
TOTAL HOURS REQUIRED		6

WEEK 7-8

COURSE	COURSE TITLE	HOURS
ENG 406CP	Digital Writing and Corporate Publications	3
ENG 490CP	Internship	3
TOTAL HOURS REQUIRED		6

TOTAL DEGREE HOURS REQUIRED	18
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Certificate in Professional Writing

This certificate program enhances the professional writing skills of students to compete in the market place.

WEEK 1-3

COURSE	COURSE TITLE	HOURS
ENG114CP	Techniques of Vocabulary Building	3
ENG 210CP	Practical English Grammar	3
TOTAL HOURS REQUIRED		6

WEEK 4-6

COURSE	COURSE TITLE	HOURS
ENG 203CP	Advanced Composition	3
ENG 303CP	Professional and Technical Writing	3
TOTAL HOURS REQUIRED		6

WEEK 7-8

COURSE	COURSE TITLE	HOURS
ENG 390CP	Oral and Business Communications	3
ENG 490CP	Internship	3
TOTAL HOURS REQUIRED		6

TOTAL DEGREE HOURS REQUIRED	18
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B.A. in English – Creative Writing Concentration**CURRICULUM****FIRST YEAR**

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab or Physical Science Lab	1
SCI 101	Introduction to Physical Science	3
CSC 150	Computer Concepts and Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
ENG 114	Techniques of Vocabulary Building	2
FRN 111	Elementary French I or SPN 111(1)	3
FRN 112	Elementary French II or SPN 112 (2)	3
HIS 100	History of World Societies, Part 1 or HIS 101, HIS 102 or HIS 103	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CSC 200	Advanced Computer Skills	3
ENG 207	Introduction to World Literature	3
ENG 210	Practical English Grammar	3
ENG 214*	Introduction to Creative Writing or ENG 215	3
ENG 218*	Writing Poetry I	3
ENG 286	Advanced Composition (1)	3
FRN 211	Intermediate French I or SPN 211 (1)	3
FRN 212	Intermediate French II or SPN 212 (2)	3
HUM 210	Humanities I or HUM 211	3
MTH 103	Mathematics in General Education	3
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS**THIRD YEAR**

COURSE	COURSE TITLE	HOURS
ENG 306	Introduction to Literacy Criticism	3
ENG 312*	Writing in a Genre or ENG 318 Writing Poetry II	3
ENG 313*	Writing Autobiography or ENG 318	3
ENG 315	Survey of English Literature I (1)	3
ENG 316	Survey of English Literature II (2)	3
ENG 341	American Literature I (1)	3
ENG 342	American Literature II (2)	3
ENG 350	Seminar in Literacy Analysis and Interpretation	3
ENG 383	African-American Literature	3
PED 100	Fundamentals of Fitness for Life	1
HED 100	Personal and Community Health	2
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
SOC 101	Introduction to Social Science	3
ENG 410	The History of the English Language (1)	3
ENG 412	Chaucer or ENG 430 (2)	3
ENG 413	Shakespeare (1)	3
ENG 419	Contemporary American English Grammar (2)	3
ENG 449	Teaching Composition (1)	3
ENG 450	Research Seminar and Senior Thesis (1)	3
ENG 454	Young Adult Literature (2)	3
ENG 456	Women's Studies (2)	3
XXX XXX	Restricted Electives: ENG 108, 212, 305, 406	3
TOTAL HOURS REQUIRED		30

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	77
Elective	3
TOTAL DEGREE HOURS REQUIRED	120

NOTE: All Major courses, including Foreign Languages courses, must be passed with a "C" or above. (1) course (1) Course is offered in the first/fall semester; (2) Course is offered the second/spring semester.

B.A. in English -- French Literature Concentration**CURRICULUM****FIRST YEAR**

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab or CHM 100L or PHY 100L	1
SCI 101	Introduction to Physical Science	3
CSC 150	Computer Concepts and Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
ENG 114	Techniques of Vocabulary Building	2
FRN 111	Elementary French I or FRN 211	3
FRN 112	Elementary French II or FRN 212	3
HED 100	Personal and Community Health	2
HIS 100	History of World Societies or HIS 101 or HIS 102 or HIS 103	3
PED 100	Fundamentals of Fitness of Life	1
IUL 101	Introduction of University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CSC 200	Advanced Computer Concepts	3
ENG 207	Introduction to World Literature	3
ENG 286	Advanced Composition	3
FRN 211	Intermediate French I or FRN 215 or FRN 216	3
FRN 212	Intermediate French II or FRN 215 or FRN 216	3
FRN 220	French Civilization	3
HUM 210	Humanities or HUM 211	3
MTH 103	Contemporary Mathematics	3
SCM 285	Principles of Speech	3
SOC 101	Introduction to Social Science	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
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 306	Introduction to Literary Criticism	3
ENG 383	African-American Literature	3
FRN 321	Survey of French Literature I	3
FRN 322	Survey of French Literature II	3
FRN 330	Literature of the 17 th Century	3
FRN 450	Phonetics or FRN 485	2
TOTAL HOURS REQUIRED		29

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
ENG 305	Seminar in Literary Analysis and Interpretation	3
ENG 410	History of the English Language or ENG 419	3
FRN 331	Literature of the 18 th Century	3
FRN 332	Literature of the 19 th Century	3
FRN 333	Literature of the 20 th Century	3
FRN 350	Cervantes	3
FRN 454	Advanced Grammar and Composition	3
FRN 490	Senior Seminar	3
XXX XXX	Unrestricted Electives	7
TOTAL HOURS REQUIRED		31

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	73
Electives	7
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	123

B.A. in English -- Spanish Literature Concentration

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab or CHM 100L or PHY 100L	1
SCI 101	Introduction to Physical Science	3
CSC 150	Computer Concepts and Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HIS 100	History of World Societies or HIS 101 or HIS 102 or HIS 103	3
MTH 103	Contemporary Mathematics	3
SPN 111	Elementary Spanish I or SPN 211	3
SPN 112	Elementary Spanish II or SPN 212	3
PED 100	Fundamentals of Fitness for Life	1
IUL 101	Introduction of University Life	3
TOTAL HOURS REQUIRED		32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
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 SPN 216	3
SPN 212	Intermediate Spanish II or SPN 215 or SPN 216	3
SPN 220	Spanish Civilization	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		29

SUMMARY OF GRADUATION REQUIREMENTS

THIRD YEAR

COURSE	COURSE TITLE	HOURS
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 306	Introduction to Literary Criticism	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
XXX XXX	Unrestricted Electives	3
TOTAL HOURS REQUIRED		32

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
ENG 350	Seminar in Literary Analysis and Interpretation	3
ENG 410	History of the English Language or ENG 419	3
ENG 413	Shakespeare	3
HUM 210	Humanities or HUM 211	3
SPN 320	Latin-American Civilization	3
SPN 332	Literature of the 19 th Century	3
SPN 333	Literature of the 20 th Century	3
SPN 350	Cervantes	3
SPN 454	Advanced Grammar and Composition	3
SPN 490	Senior Seminar	3
TOTAL HOURS REQUIRED		30

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	77
Electives	3
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	123

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:

CORE COURSES

COURSE	COURSE TITLE	HOURS
ENG 210	Practical English Grammar or	3
ENG 341	Survey of American Literature I or ENG 342 Survey of American Literature II	3
ENG 306	Introduction to Literary Criticism	3
TOTAL HOURS REQUIRED		9

COURSE	COURSE TITLE	HOURS
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ELECTIVES

ENG 3XX/ ENG 4XX	Electives at the 300-400 level	9
TOTAL HOURS REQUIRED		9

TOTAL DEGREE HOURS REQUIRED	18
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Minor in French

CORE COURSES

COURSE	COURSE TITLE	HOURS
FRN 215	INTERMEDIATE CONVERSATION	3
FRN 454	Advanced Grammar Composition	3
FRN 220	French Civilization I or FRN 320 French Civilization II	3
TOTAL HOURS REQUIRED		9

ELECTIVES

COURSE	COURSE TITLE	HOURS
FRN 3XX/ FRN 4XX	Electives at the 300-400 level	9
TOTAL HOURS REQUIRED		9

TOTAL DEGREE HOURS REQUIRED	18
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Minor in Spanish

CORE COURSES

COURSE	COURSE TITLE	HOURS
SPN 215	Intermediate Conversation	3
SPN 454	Advanced Grammar Composition	3
SPN 220	Spanish Civilization or SPN 221 Latin American Civilization	3
TOTAL HOURS REQUIRED		9

ELECTIVES

COURSE	COURSE TITLE	HOURS
SPN 3XX/ SPN 4XX	Electives at the 300-400 level	9
TOTAL HOURS REQUIRED		9

TOTAL DEGREE HOURS REQUIRED	18
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DEPARTMENT OF VISUAL AND PERFORMING ARTS

Mr. Solomon Isekeije, Director, Division of Fine Arts
(757) 823-8844

The Division 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.

ASSESSMENT REQUIREMENTS

All students majoring in the 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 Division of Fine Arts is required of all graduates. Continuous verifiable engagement with the local art community is required by the Division.



B.A. in Fine Arts and Graphic Design**CURRICULUM****FIRST YEAR**

COURSE	COURSE TITLE	HOURS
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 280	Computer Applications in the Arts	3
HED 100	Personal & Community Health	2
MTH 103	Mathematics in General Education	3
IUL 101	Introduction to University Life	3
PED 100	Fundamentals of Fitness for Life	3
TOTAL HOURS REQUIRED		35

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
SCI 101	Introduction to Physical Science	3
CHM 100L	Chemistry Lab or PHY 100L	1
FIA 140	Ceramics	3
FIA 220	Life Drawing	3
FIA 234	Painting	3
FIA XXX	FIA Elective (100 or 200 Level FIA or FDM)	3
XXX XXX	Elective (100 or 200 level free Elective or FIA or FDM)	3
XXX XXX	Elective (100 or 200 level free Elective or FIA or FDM)	3
HIS 100	History of World Societies, Part 1	3
SOC 101	Introduction to Social Science	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

A non-art minor can be established by choosing carefully with your advisor the 15 – 18 necessary hours of electives.

THIRD YEAR

COURSE	COURSE TITLE	HOURS
FIA 240	Sculpture, Carving & Welding	3
FIA 261	Printmaking	3
FIA 270	History of Art Survey I	3
FIA 271	History of Art Survey II	3
SCM 285	Principles of Speech	3
FIA 320	Intermediate Drawing	3
FIA 370	African/American Art History	3
FIA XXX	FIA Elective (300 level FIA or FDM)	3
XXX XXX	Elective (200 or 300 level free Elective or FIA or FDM)	3
XXX XXX	Elective (200 or 300 level free Elective or FIA or FDM)	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
FIA 470	Modern Art History	3
FIA 491	Advanced Studio Problems	3
FIA 495	Portfolio Preparation & Senior Exhibition	2
FIA XXX	FIA Elective (300 or 400 level FIA or FDM)	3
FIA XXX	FIA Elective (400 level FIA or FDM)	3
FIA XXX	FIA Elective (400 level FIA or FDM)	3
HUM 210	Humanities	3
XXX XXX	Cultural Elective (limited to one Of the selected cultural electives)	3
XXX XXX	Elective (300 or 400 level free Elective including FIA or FDM)	3
XXX XXX	Elective (300 or 400 level free Elective including FIA or FDM)	3
TOTAL HOURS REQUIRED		29

CULTURAL ELECTIVES: ENG 383, HIS 336, HIS 371, MUS 234, POS 315, PSY 340, SOC 237 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.

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	62
Electives	18
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	120

B.A. in Fine Arts – Specializing in Education

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
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
IUL 101	Introduction to University Life	3
PED 100	Fundamentals of Fitness for Life	1
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
SCI 101	Introduction to Physical Science	3
CHM 100L	Chemistry Lab or PHY 100L Physical Science Lab or BIO 100L Biology Lab	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	United States History to 1865	3
MTH 103	Mathematics in General Education	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

*RECOMMENDED ELECTIVES: ENG 383, FIA 370, HIS 335, HIS 336, HIS 371, MUS 234, POS 315, SED 233, SED 420, SOC 237

THIRD YEAR

COURSE	COURSE TITLE	HOURS
EDU 201	Foundations of Education	3
FIA 234	Painting	3
FIA 270	History of Art Survey I	3
FIA 271	History of Art Survey II	3
HUM 210	Humanities or HUM 211	3
PSY 228	Developmental Psychology	3
SCM 285	Principles of Speech	3
SED 405	Reading in the Content Area	3
SOC 101	Introduction to Social Sciences	3
XXX XXX	Cultural Elective*	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
FIA 320	Intermediate Drawing	3
FIA 365	Elementary Photography	3
SED 386	Fine Arts Curriculum and Instructional Procedures	3
EDU 381	Classroom and Behavior Management	3
SED 499	Directed Teaching	12
XXX XXX	Elective*	3
XXX XXX	Elective*	3
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	59
Electives	9
Other Requirements	12
TOTAL DEGREE HOURS REQUIRED	123

Teacher Licensure Endorsement in Fine Arts

Students wishing to pursue a career in teaching art

must take the following steps:

- Follow the curriculum for the degree in Fine Arts.
 - Use elective hours for professional courses.
16. See the academic advisor in their major department.
 17. See the academic advisor in the School of Education.
 18. Pass the PRAXIS I Examination in the First Year or Sophomore Year.
 19. Pass the PRAXIS II Examination before graduation.

NOTE: Endorsement is for K through 12.

*RECOMMENDED ELECTIVES

COURSE	COURSE TITLE
ENG 383	African-American Literature
FIA 370	African-American Art History
HIS 335	African-American History, Part 1
HIS 336	African-American History, Part 2
HIS 371	African-American Art
MUS 234	African-American Music
POS 315	African-American Politics
SED 233	Seminar in Assessment and Evaluation
SED 420	Educational Technology
SOC 237	Racial and Ethnic Minorities

Minor in Fine Arts

(For students majoring in other departments.)

COURSE	COURSE TITLE	HOURS
FIA 115	Basic Design II	3
FIA 120	Basic Drawing I	3
FIA 260	Introduction to Advertising	3
FIA 3XX	Dept. Elective (FDM or FIA)	3
FIA 3XX	Dept. Elective (FDM or FIA)	3
FIA XXX	Departmental Elective (300 or 400 level)	3
TOTAL HOURS REQUIRED		18

TOTAL DEGREE HOURS REQUIRED	18
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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

Dr. Josephine Reid, Assistant Dean
College of Liberal Arts
(757) 823-8118

The Department of General Studies 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) 823-8118 or visit www.nsu.edu.

The Honors College coordinates the honors seminars, which are for juniors and seniors with a G.P.A. of 3.5 or above. (Students with a G.P.A. between 3.0 and 3.49 may enter an honors seminar by permission of the instructor.) For more information, please phone the director at (757) 823-8208 or email the director at honors@nsu.edu.

DEPARTMENT OF HISTORY AND INTERDISCIPLINARY STUDIES

Dr. Charles H. Ford, Director, History Division
(757) 823-8828

The Division of History provides students with a critical intellectual framework for assessing and understanding human affairs. The Division offers a broad spectrum of history and geography courses leading to the Bachelor of Arts degree in history. Curriculum sequences are available in History (General), History (Online), History-Social Science (Education), and History-Military Science (Army and Navy).

The general objectives of the Division are as follows:

1. To provide its students with a thorough grounding in the past, seen from both social scientific and humanistic perspectives, and in the nature of history and historical analysis. The Division prepares undergraduates for a variety of career options which rely upon a sound liberal arts education in both academic and professional fields. The study of history prepares students for a variety of career paths, extending from fields such as law, education, and religion, to journalism and media ventures, and to business and government service.
 - a. To accomplish its objectives, the Division offers programs leading to the B.A., a Certificate in Africana Studies, and it works with the School of Education to provide an M.A. in Education with a Certificate in Social Studies. In addition, the Division participates in several interdepartmental programs, including Africana Studies and Women's Studies.
 - b. The skills necessary for the study of history are highly practical and prized by graduate schools, professional schools, and employers. NSU history majors have moved on to careers in business, law, government service, education, and social work.
2. Be able to articulate to potential employers the value of a liberal arts education. History trains students to be creative and flexible problem solvers who can make sound judgments and communicate their ideas effectively.
3. Upon completion of the required history and geography courses, students should be able to identify and discuss the major civilizations that have shaped human behavior over time and space. They should be able to compare and assess the principal values and ideologies of major world civilizations.
4. Upon completion of the required degree in history-social sciences, students will have a firm grasp of American and global history with a depth and range that covers the major global regions and societies, and of the processes that have increasingly connected them worldwide.
5. Upon completion of the Division's required courses in addition to the general core's English courses, students should be able to write in clear prose, including analyzing and evaluating primary source documents as well as secondary source monographs. They should also be able to identify, define, and defend a point of view.
6. Upon completion of the Division's required courses, students will have a working knowledge of the world's cultural diversity. The Division's emphasis on appreciating diversity is designed "to equip students with the capability to become productive citizens who continuously contribute to a global and rapidly changing society," as per the University's mission statement.

Accordingly, the Division's primary learning outcomes for its majors to acquire are as follows:

1. Ability to trace and analyze change over time.
2. Ability to compare and contrast cultures and traditions from the same time period.
3. Ability to write and argue clearly with a thesis statement.
4. Ability to appreciate the contributions of African-Americans to American history.
5. Ability to appreciate the contributions of the African diaspora to world history.

The divisional history 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 University 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 Division.

It is the policy of the History Division 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 division 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' papers from HIS 205 and HIS 497 are reviewed by the faculty for development of writing, research and critical thinking skills. Students whose papers do not demonstrate competency in these areas must retake HIS 497.

For further information, contact the History Division: Phone (757) 823 8828 or e-mail chford@nsu.edu or sccollins@nsu.edu.

B.A. in 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

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
CSC 150	Computer Concepts and 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	United States History to 1865	3
HIS 103	United States History 1865 to the Present	3
MTH 103	Mathematics in General Education	3
PED 100	Fundamentals of Fitness for Life	1
SOC 101	Introduction to the Social Sciences	3
TOTAL HOURS REQUIRED		37

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ENG 299	Writing Competency Exam	0
HIS 100	History of World Societies, Part 1	3
HIS 101	History of World Societies, 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
SCI 101	Introduction to Physical Science	3
POS 100	American National Government	3
XXX XXX	Electives	6
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

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.

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CSC 200	Advanced Computer Concepts	3
ECN 211	Principles of Economics	3
ENG 203	Advanced Composition or ENG 286 or ENG 303	3
ENG 383	African American Literature or FIA 170 or HIS 335 or HIS 336 or MUS 234	3
GEO 130	Principles of Geography	3
HIS 3XX/ HIS 4XX	History Elective at the 300-400 level (Non-western History)	6
HIS 439	Recent American History from 1932 to Present	3
SCM 285	Principles of Speech	3
XXX XXX	Elective	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
ENG 207	Literature of the Western World or ENG 315 or ENG 316	3
HIS 497	Introduction to Historical Research	3
HIS XXX	History Electives	9
POS 430	Ancient Theory or POS 431, Modern Theory**	3
XXX XXX	Electives	8
TOTAL HOURS REQUIRED		26

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	57
Electives	23
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	123

B.A. in History – Teacher Licensure Endorsement in History and Social Science

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BIO 100	Biological Science	3
BIO 100L	Biological Science 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
HIS 102	United States History to 1865	3
HIS 103	United States History 1865 to the Present	3
MTH 103	Mathematics in General Education	3
PED 100	Fundamentals of Fitness for Life	1
TOTAL HOURS REQUIRED		28

SECOND YEAR

COURSE	COURSE TITLE	HOURS
EDU 201	Foundations of Education	3
ENG 299	Writing Competency Exam	0
GEO 130	Principles of Geography	3
HIS 100	History of World Societies, Part 1	3
HIS 101	History of World Societies, 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
SCI 101	Introduction to Physical Science	3
POS 100	American National Government	3
POS 231	American State and Local Government	3
POS 431	Modern Theory	3
TOTAL HOURS REQUIRED		36

THIRD YEAR

COURSE	COURSE TITLE	HOURS
ECN 211	Principles of Economics	3
ECN 212	Principles of Economics	3
EDU 381	Curriculum and Instructional Procedures	3
ENG 286	Advanced Composition or ENG 203 or ENG 207 or ENG 303	3
	HIS 335 or HIS 336 or HIS 370 or HIS 371	3
HIS 328	History of Virginia	3
HIS 346	Twentieth Century Europe	3
HIS XXX	History Elective at the 300-400 level	3
HIS 439	Recent American History from 1932 to Present	3
SED 390	Curriculum and Instructional Procedures in Secondary Social Studies	3
SED 420	Educational Technology	3
PSY 228	Developmental Psychology	3
TOTAL HOURS REQUIRED		36

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
GEO 410	Urban Geography	3
HIS 497	Introduction to Historical Research	3
HIS XXX	History Elective at the 300-400 level in African, Asian or Latin American History	6
POS 360	International Politics	3
SCM 285	Principles of Speech	3
SED 405	Reading in the Content Area	3
SED 499	Supervised Classroom Experience/Directed Teaching	12
TOTAL HOURS REQUIRED		33

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	42
Electives	23
Other Requirements	22
TOTAL DEGREE HOURS REQUIRED	130

ENDORSEMENT REQUIREMENTS

The Division 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, IUL 101, 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 Test.*

Prior to enrolling for SED 499, students must pass the PRAXIS II Test for Social Studies and must give the Division a hard copy of both their overall scores and content-specific subscores from this examination. Failure to pass the content areas of the Praxis II Test and to give the Division a hard copy of those Praxis II scores and subscores for verification will prevent the student from graduating.

***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).

Teacher Licensure Endorsement in History And Social Science – Early Childhood

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):

COURSE	COURSE TITLE
ECE 374	Developmental Psychology
ECE 460	Curriculum and Instruction in Preschool and Kindergarten
ECE 461	Curriculum and Instruction in Early Primary
ECE 484	Teaching Reading in Early Childhood Education
ECE 499	Directed Teaching
EDU 201	Foundations of Education
SED 233	Seminar in Assessment and Evaluation

Teacher Licensure Endorsement in History and Social Science -- Special Education

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.

COURSE	COURSE TITLE
CSSE 423	Rehabilitation Technical of Exceptional Children
EDU 201	Foundations of Education
SED 233	Seminar in Assessment and Evaluation
SED 405	Reading in the Content Area
SED 486	Educational Psychology and Behavior
SPE 310	Characteristics of Exceptional Students
SPE 371	Aspects for Handicapping Conditions
SPE 440	Curricula Adjustment for Exceptional Students
SPE 490	Assessment of Exceptional Students
SPE 499	Supervised Classroom Experience/ Directed Children

B.A. in History -- Military Science (ARMY)**CURRICULUM**

For the History-Military Science (Army) Sequence, thirty-six (36) hours in History are required, of which twenty-one (21) hours must be at the 300 or 400 level, with a minimum of six credit hours of non-Western history. Twenty-six (26) credit hours in Military Science are required. Juniors may receive four semester hours credit for leadership development assessment course, but these credits will not be a part of scheduling.

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
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	United States History to 1865	3
HIS 103	United States History 1865 to the Present	3
MTH 103	Mathematics in General Education	3
MSL 101	Leadership/ Management	2
MSL 102	Leadership/ Management	2
MSL 101D OR 102D	Basic Drill and Ceremonies	1
SCI 101	Physical Science	3
TOTAL HOURS REQUIRED		32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
HIS 205	Introduction to History	3
FL 111	Foreign Language	3
FL 112	Foreign Language	3
HIS 100	History of World Societies, Part 1	3
HIS 101	History of World Societies, Part 2	3
POS 100	American Government	3
MLS 201	Applied Leadership/ Management	2
MLS 202	Applied Leadership/ Management	2
MSL 201D OR 202D	Drill and Ceremonies	1
ENG XXX	ENG 286 or ENG 203 or ENG 303 Advanced Composition	3
CSC 200	Advanced Computer Concepts	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		29

THIRD YEAR

COURSE	COURSE TITLE	HOURS
HIS 305	3 Rs of History	3
HIS 380	American Military History	3
HIS 3XX HIS 4XX	History Electives (300-400 level, Non-Western)	6
GEO 130	Principles of Geography	3
MSL 101	Advanced Leadership/ Management	3
MSL 102	Advanced Leadership/ Management	3
SCM 285	Principles of Speech	3
HIS 3XX	African American History (HIS 335 or 336)	3
ENG 207	World Literature	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
HIS 497	Introduction to Historical Research	3
HIS 439	Recent American History from 1932 to Present	3
GEO XXX	Geography Elective (300-400 level)	3
HIS 3XX	African History and Culture (HIS 370 or 371)	3
POS 360	International Politics	3
HIS XXX	History Electives (300-400 level)	6
MSL 401	Theory/ Dynamics of Military Team	3
MSL 402	Theory/ Dynamics of Military Team	3
MSL 401D	Drill and Ceremonies	1
MSL 402D	Drill and Ceremonies	1
TOTAL HOURS REQUIRED		29

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	0
Other Requirements	26
TOTAL DEGREE HOURS REQUIRED	120

B.A. in History -- Military Science (NAVY)**CURRICULUM**

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.

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BIO 100	Biological Science	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HIS 102	United States History to 1865	3
HIS 103	United States History 1865 to the Present	3
NSC 111	Naval Laboratory	1
NSC 112	Naval Laboratory II	1
NSC 101	Intro to Naval Science and Sea Power & Maritime	2
NSC 102	Intro to Naval Science and Sea Power & Maritime	3
MTH 184	Calculus I	4
MTH 251	Calculus II	4
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
HIS 205	Introduction to History	3
FL 111	Foreign Language	3
HIS 100	History of World Societies, Part 1	3
HIS 101	History of World Societies, Part 2	3
POS 100	American Government	3
NSC 201	Naval Ship Systems I (Engineering)	3
NSC 202	Naval Ship Systems II (Weapons)	3
ENG 207	World Literature	3
NSC 211	Naval Laboratory III	1
NSC 212	Naval Laboratory IV	1
PHY 160	Physics I	4
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CSC XXX	CSC 150 or CSC 200 Computer Literacy	3
HIS 305	3 Rs of History	3
HIS 380	American Military History	3
HIS 3XX HIS 4XX	History Electives (300-400 level, Non-Western)	7
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
PHY 161	Physics II	4
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
HIS 3XX	History 335/336 Afro-Amer. History or HIS 370/371 African History and Culture	3
HIS 497	Introduction to Historical Research	3
HIS 439	Recent American History from 1932 to Present	3
GEO 130	Principles of Geography	3
HIS XXX	History Electives (300-400 level)	6
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
TOTAL HOURS REQUIRED		26

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	0
Other Requirements	26
TOTAL DEGREE HOURS REQUIRED	120

Minor in History

For those students in other majors seeking a minor in history, the following program is offered:

COURSE	COURSE TITLE	HOURS
HIS 205	Introduction to History	3
HIS 3XX/ HIS 4XX	History Electives at the 300-400 level	12
TOTAL HOURS REQUIRED		15
TOTAL DEGREE HOURS REQUIRED		18

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.

PREREQUISITES

COURSE	COURSE TITLE	HOURS
HIS 335	African American History I, Part 1	3
HIS 336	African American History II, Part 2	3

REQUIRED COURSES

COURSE	COURSE TITLE	HOURS
HIS 490A	Introduction to African and African Diasporan Studies	3
HIS 370	African History and Culture I	3

ELECTIVES

(Select one from each grouping)

GROUP 1

COURSE	COURSE TITLE
HIS 371	African History and Culture II
HIS 490E	Major Themes in Contemporary Africa

GROUP 2

COURSE	COURSE TITLE
HIS 365	Caribbean and Latin American History
HIS 446	Colonial Latin American
HIS 448	Slavery in the Atlantic Basin

GROUP 3

COURSE	COURSE TITLE
ENG 383	African American Literature
ENG 384	African American Literature: Poetry
ENG 385	African American Literature: Fiction
ENG 432	African and African American Novel
ENG 433	African and African American Biography and Autobiography
ENG 440	Seminar in African and African American Literature
ENG 458	Southern Black Female Aesthetic

GROUP 4

COURSE	COURSE TITLE
DRM 219	African American Drama
FIA 370	African American Art
MUS 234	African American Music
MUS 335	Jazz Literature and Criticism
MUS 336	Jazz History

GROUP 5

COURSE	COURSE TITLE
GEO 337	Geography of Africa
REL 330	History and Theology of the Black Church
JRN 299	African American and Mass Media
POS 315	African American Politics
POS 463	Politics of African Nations
PSY 340	Psychology of the African American
SOC 237	Racial and Cultural Minorities
INT 412	Contemporary Globalization

DEPARTMENT OF HISTORY AND INTERDISCIPLINARY STUDIES

Dr. Khadijah O. Miller, Department Head
Director, Interdisciplinary Studies Division
(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. It offers a flexible curriculum that maximizes students' experience; yet, it is a rigorous critical thinking, research and writing intensive program that focuses on developing and applying tangible and transferable life-long skills.

CORE COURSES

(Courses to be completed with grade of "C" or better)

CORE COURSES

COURSE	COURSE TITLE	HOURS
INT 308	Introduction to Interdisciplinary Studies	3
INT 322	Approaches to Critical Analysis	3
INT 360	Foundations of Research in Interdisciplinary Studies	3
INT 375	Language and Society	3
INT 411	Ideas and Their Influences	3

NOTE: INT Core courses are to be taken in numerical order. INT 308 is the prerequisite for ALL INT courses, except INT 412.

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 College Dean are required.

ADDITIONAL INFORMATION

Interdisciplinary Studies courses (INT 308, INT 322, INT 360, INT 375, INT 411, INT 412, INT 470, and INT 477T, INT 477S-L, INT477WL) **cannot be substituted or transferred in**; ALL CORE INT classes must be taken at NSU for the Bachelor of Science Degree.

Currently enrolled NSU students must have a GPA of 2.0 in order to transfer into the Interdisciplinary Studies Program; exceptions to the rule are at the discretion of the Department Head.

In order to demonstrate proficiency in concentration areas, students are to take a combined total of at least 30 hours (within the two/three concentration areas at the 300-400 level (considered upper levels).

CONCENTRATION AREAS

COURSE	COURSE TITLE	HOURS
	Concentration I (includes last 3 INT Core Courses)	15
	Concentration II	15
	Concentration III	15

INCLUDED WITH CONCENTRATION I

COURSE	COURSE TITLE	HOURS
INT 412	Contemporary Globalization	3
INT 470	Senior Seminar	3
INT 477	Senior Thesis	3

OPTIONAL CORE COURSES

COURSE	COURSE TITLE	HOURS
INT 399	Special Topics in INT	3
INT 477	Senior Thesis	3

TECHNOLOGY SUPPLEMENT

COURSE	COURSE TITLE	HOURS
CSC 200	Advanced Computer Concepts	3

B.S. in Interdisciplinary Studies**CURRICULUM****FIRST YEAR**

COURSE	COURSE TITLE	HOURS
BIO XXX	BIOLOGICAL SCIENCE* OR BIO 110	3
BIO XXXL	Biological Science Lab* or CHM 100L or PHY 100L	1
CSC 150	Computer Concepts and Applications* or CLM 165, CSC 169, CIT 150, FIA 280 or TED 170	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
SOCIAL SCIENCE	SOC 101, SOC 110, HIS 100, HIS 101, HIS 102, HIS 103, BUS 175, ECN 200	3
HUMANITIES	HUM 210, HUM 211, ENG 207, FIA 201, MUS 301	3
MTH 103	College Algebra or higher	3
PED 100	Fundamentals of Fitness for Life*	1
XXX XXX	Free Electives	2
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	ANY NATURAL SCIENCE	3
CSC 200	Advanced Computer Concepts	3
XXX XXX	Cultural Perspective A	3
SCM 285	Principles of Speech	3
XXX XXX	Cultural Perspective B	3
XXX XXX	Concentration I Courses	15
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

(*) Substitutions approved by College Dean and Department Chair may apply.

SUMMARY OF GRADUATION REQUIREMENTS**THIRD YEAR**

COURSE	COURSE TITLE	HOURS
INT 308	INTRODUCTION TO INTERDISCIPLINARY STUDIES	3
INT 322	Approaches to Critical Analysis	3
INT 360	Foundations of Research in Interdisciplinary Studies	3
INT 375	Language and Society	3
XXX XXX	Concentration II Courses	15
XXX XXX	Cultural Elective (300-400 level)	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
INT 411	IDEAS AND THEIR INFLUENCES	3
INT 412	Contemporary Globalization	3
INT 470	Advanced Interdisciplinary Studies Seminar	3
XXX XXX	INT 399, INT 477, or Upper Level	3
XXX XXX	Free Electives (300-400 level)	18
TOTAL HOURS REQUIRED		30

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements (including concentrations)	54
Electives	23
Technology Supplement	3
TOTAL DEGREE HOURS REQUIRED	120

B.S. in Interdisciplinary Studies -- Online**CURRICULUM****FIRST YEAR**

COURSE	COURSE TITLE	HOURS
BIO XXX	BIOLOGICAL SCIENCE*	3
BIO XXXL	Biological Science Lab* or CHM 100L or PHY 100L	1
CSC 150	Computer Concepts and Applications* or CLM 165, CSC 169, CIT 150, FIA 280 or TED 170	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
SOCIAL SCIENCE	SOC 101, SOC 110, HIS 100, HIS 101, HIS 102, HIS 103, BUS 175, ECN 200	3
HUMANITIES	HUM 210, HUM 211, ENG 207, FIA 201, MUS 301	3
MTH 103	College Algebra or higher	3
PED 100	Fundamentals of Fitness for Life*	1
XXX XXX	Free Elective	2
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
XXX 100	ANY NATURAL SCIENCE*	3
CSC 200	Advanced Computer Concepts	3
XXX XXX	Cultural Perspective A	3
SCM 285	Principles of Speech	3
XXX XXX	Concentration I Courses	15
XXX XXX	Cultural Perspective B	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

(*) Substitutions approved by College Dean and Department Chair may apply.

THIRD YEAR

COURSE	COURSE TITLE	HOURS
INT 308	INTRODUCTION TO INTERDISCIPLINARY STUDIES	3
INT 322	Approaches to Critical Analysis	3
INT 360	Foundations of Research in Interdisciplinary Studies	3
INT 375	Language and Society	3
XXX XXX	Concentration II Courses	15
XXX XXX	Free Elective	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
INT 411 OR INT 412	IDEAS AND THEIR INFLUENCES OR CONTEMPORARY GLOBILIZATION	3
XXX XXX	Concentration III Courses	15
INT 470	Senior Seminar	3
XXX XXX	Free Electives (300-400 level)	9
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements includes INT Core Courses and other courses in concentrations	63
Electives	17
TOTAL DEGREE HOURS REQUIRED	120

B.S. in Interdisciplinary Studies -- Military**CURRICULUM****FIRST YEAR**

COURSE	COURSE TITLE	HOURS
BIO XXX	Biological Science*	3
BIO XXXL	Biological Science Lab* or CHM 100L or PHY 100L	1
CSC 150	Computer Concepts and Applications* or CLM 165, CSC 169, CIT 150, FIA 280 or TED 170	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
SOCIAL SCIENCE	SOC 101, SOC 110, HIS 100, HIS 101, HIS 102, HIS 103, BUS 175, ECN 200	3
HUMANITIES	HUM 210, HUM 211, ENG 207, FIA 201, MUS 301	3
MTH 103	College Algebra or higher	3
PED 100	Fundamentals of Fitness for Life*	1
XXX XXX	Free Elective	2
IUL 101	Introduction to University Life**	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
XXX 100	Any Natural Science*	3
CSC 200	Advanced Computer Concepts	3
XXX XXX	Cultural Perspective A	3
SCM 285	Principles of Speech	3
XXX XXX	Concentration I Courses	15
XXX XXX	Cultural Perspective B	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

(*) Substitutions approved by College Dean and Department Chair may apply.

(**) Waived for military, pending documentation.

THIRD YEAR

COURSE	COURSE TITLE	HOURS
INT 308	Introduction to Interdisciplinary Studies	3
INT 322	Approaches to Critical Analysis	3
INT 360	Foundations of Research in Interdisciplinary Studies	3
INT 375	Language and Society	3
XXX XXX	Concentration II Courses	15
XXX XXX	Free Electives (300-400 level)	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
INT 411 OR INT 412	Ideas and Their Influences or Contemporary Globalization	3
XXX XXX	Concentration III Courses	15
INT 470	Senior Seminar	3
XXX XXX	Free Electives (300-400 level)	9
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements includes INT Core Courses and other courses in concentrations)	63
Electives	17
TOTAL DEGREE HOURS REQUIRED	120

B.S. in Interdisciplinary Studies—3 Year Degree**CURRICULUM****FIRST YEAR**

COURSE	COURSE TITLE	HOURS
BIO XXX	BIOLOGICAL SCIENCE* OR BIO 110	3
BIO XXXL	Biological Science Lab* or CHM 100L or SCI 101L	1
CSC 150	Computer Concepts and Applications* or CLM 165, CSC 169, CIT 150, FIA 280 or TED 170	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
SOCIAL SCIENCE	SOC 101, SOC 110, HIS 100, HIS 101, HIS 102, HIS 103, BUS 175, or ECN 200	3
HUMANITIES	ENG 207, FIA 201, MUS 301, or any Foreign Language	3
MTH 103	Contemporary Math or higher	3
PED 100	Fundamentals of Fitness for Life*	1
XXX XXX	Free Electives	5
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SUMMER

COURSE	COURSE TITLE	HOURS
SCM 285	PRINCIPLES OF SPEECH	3
XXX XXX	Cultural Perspective	3
TOTAL HOURS REQUIRED		6

SECOND YEAR

COURSE	COURSE TITLE	HOURS
SCI 101	INTRODUCTION TO PHYSICAL SCIENCE	3
CSC 200	Advance Computer Concepts	3
XXX XXX	Cultural Perspective	3

SUMMARY OF GRADUATION REQUIREMENTS

XXX XXX	Concentrations I & II	21
INT 308	Introduction to Interdisciplinary Studies	3
INT 322	Approaches to Critical Analysis	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		36

(*) Substitutions approved by School Dean and Department Chair may apply.

SUMMER

COURSE	COURSE TITLE	HOURS
INT 360	FOUNDATIONS OF RESEARCH IN INTERDISCIPLINARY STUDIES	3
INT 375	Language and Society	3
XXX XXX	Elective	3
TOTAL HOURS REQUIRED		9

THIRD YEAR

COURSE	COURSE TITLE	HOURS
INT 411	IDEAS AND THEIR INFLUENCES	3
INT 412	Contemporary Globalization	3
INT 470	Advanced Interdisciplinary Studies Seminar	3
XXX XXX	INT 399, INT 477, or Upper Level	3
XXX XXX	Concentration II (300-400 level)	9
XXX XXX	Free Electives (300 – 400 level)	15
TOTAL HOURS REQUIRED		36

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements (including concentrations)	54
Electives	23
Technology Supplement	3
TOTAL DEGREE HOURS REQUIRED	120

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.

COURSE	COURSE TITLE	HOURS
INT 308	Introduction to Interdisciplinary Studies	3
INT 322	Approaches to Critical Analysis	3
INT 360	Foundations of Research in INT	3
INT 375	Language and Society	3
INT 411	Ideas and Their Influences	3
INT 412 OR INT 470	Contemporary Globalization or Senior Seminar	3
TOTAL HOURS REQUIRED		18

E-LEARNING

The Department of Interdisciplinary Studies offers all core courses online, face to face, and in accelerated (8 week) sessions; as possible.

Student Requirements

- 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.
- 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, and then click on "What are the minimum system requirements?"
- Upon enrollment, students receive a Norfolk State e-mail account. Students must access their Norfolk State e-mail accounts by doing the following:
 - Go to the NSU web-site (www.nsu.edu). Click on E-Learning; then click on Student Support; click on e-mail login information.
 - Students registered for online classes should use their Blackboard (Bb) login and access Blackboard. Once in Blackboard, the students should transmit an e-mail to the class instructor to ensure that they can access the class and that their e-mail is functioning properly.
- 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 to 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 office of eLearning at www.nsu.edu/elearning or the Department of Interdisciplinary Studies.

B.S. in Interdisciplinary Studies

Reclamation Program at Virginia Beach Higher Education Center

(Please see NSU Website,
<http://www.nsu.edu/vbhec/reclamation.html>)

B.S. in Interdisciplinary Studies

Norfolk Naval Base

(Please see NSU Website,
<http://www.nsu.edu/vbhec/navalclasses.html>.)

DEPARTMENT OF MASS COMMUNICATIONS AND JOURNALISM

Dr. 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 Commission on Colleges (SACSCOC), 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 IUL 101, ENG 101, ENG 102, ENG 203, and SCM 285.

TRANSFER CREDIT POLICY

The Department will accept no more than 12 hours credit in the undergraduate major taken at another institution and no more than 6 credits in the graduate major. It will accept credits for all courses outside the major approved by the Office of Admissions and the Registrar's Office.



B.S. in Mass Communications – General Broadcast

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CSC 150	Computer Concepts and Applications	3
ENG 101	Communication Skills I or ENG 101H	3
ENG 102	Communication Skills II or ENG 102H	3
HED 100	Personal and Community Health	2
HIS 102	United State History to 1865 or HIS 100 or HIS 101 or HIS 103	3
MCM 211	Society and Mass Communications	3
MCM 250	TV Production	3
MTH 103	Mathematics in General Education	3
PED 100	Fundamentals of Fitness for Life or PED 13X or PED 20X or PED 21X	1
POS 100	American National Government	3
SOC 101	Introduction to Social Sciences or SOC 110	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab or CHM 100L or PHY 100L	1
SCI 101	Introduction to Physical Science	3
CSC 200	Advanced Computer Concepts	3
ENG 203	Advanced Communication Skills or ENG 286 or ENG 303	3
ENG 207	Literature of the Western World	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
XXX XXX	Elective outside the Major	
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		34

THIRD YEAR

COURSE	COURSE TITLE	HOURS
ECN 211	Principles of Microeconomics or ECN 212	3
ENG 114	Techniques of Vocabulary Building	2
HIS 335	African American History, Part 1 or HIS 336 or HIS 370 or HIS 371 or ENG 383 or FIA 170 or MUS 234 or POS 315 or PSY 340	3
JRN 290	Digital Photography or MCM 280 or MCM 330 or MCM 391	3
LOG 210	Logic: Critical Thinking	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
XXX XXX	Elective within the Major	3
XXX XXX	Electives outside the Major	6
TOTAL HOURS REQUIRED		29

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
GEO 130	Principles of Geography	3
MCM 351	Introduction to Broadcast and Film Criticism or MCM 450 or MCM 485	3
MCM 440	Law and Mass Communications	3
MCM 445	Ethics in Media or MCM 464 or MCM 470	3
MCM 460	Special Problems in Mass Communications or MCM 362 or MCM 489	3
MCM 491	Internet/Web Page Design	3
XXX XXX	Elective within the Major	3
XXX XXX	Electives outside the Major	6
TOTAL HOURS REQUIRED		27

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	59
Electives	21
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	123

B.A. in Journalism

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CSC 150	COMPUTER CONCEPTS AND APPLICATIONS	3
ENG 101	Communication Skills I or ENG 101H	3
ENG 102	Communication Skills II or ENG 102H	3
HED 100	Personal and Community Health	2
HIS 102	United State History to 1865 or HIS 100 or HIS 101 or HIS 103	3
JRN 220	Basic Writing	3
MCM 211	Society and Mass Communications	3
MTH 103	Mathematics in General Education	3
PED 100	Fundamentals of Fitness for Life or PED 13X or PED 20X or PED 21X	1
POS 100	American National Government	3
SOC 101	Introduction to Social Sciences or SOC 110	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE	3
BIO 100L	Biological Science Lab or CHM 100L or PHY 100L	1
SCI 101	Introduction to Physical Science	3
CSC 200	Advanced Computer Concepts	3
ENG 203	Advanced Communication Skills or ENG 286 or ENG 303	3
ENG 207	Literature of the Western World	3
FIA 201	Basic Art Appreciation or MUS 301	3
HUM 210	Humanities or HUM 211	3
JRN 210	Advertising Principles or JRN 221 or JRN 240	3
JRN 290	Digital Photography or MCM 250 or FIA 365	3
PSY 210	Introduction to Psychology	3
SCM 285	Principles of Speech or SCM 285H	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		34

THIRD YEAR

COURSE	COURSE TITLE	HOURS
ECN 211	PRINCIPLES OF MICROECONOMICS OR ECN 212	3
ENG 114	Techniques of Vocabulary Building	2
HIS 335	African American History, Part 1 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
XXX XXX	Elective within the Major	3
XXX XXX	Electives outside the Major	9
TOTAL HOURS REQUIRED		29

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
JRN 332	GRAPHICS OF COMMUNICATION OR JRN 342	3
MCM 310	History of Mass Communication or MCM 460	3
MCM 440	Law and Mass Communications or MCM 445	3
MCM 450	Mass Communication Theory and Research	3
MCM 491	Internet/Web Page Design	3
XXX XXX	Electives within the Major	6
XXX XXX	Electives outside the Major	6
TOTAL HOURS REQUIRED		27

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	39
Electives	15
Other Requirements	26
TOTAL DEGREE HOURS REQUIRED	123

Minor in Mass Communications

The following 15 hours are required for a minor in Mass Communications (General Broadcast):

CORE COURSES

(Choose any 3 courses from below.)

COURSE	COURSE TITLE	HOURS
MCM 211	SOCIETY AND MASS COMMUNICATIONS	3
MCM 250	TV Production	3
MCM 261	Introduction to Media Writing	3
MCM 362	Broadcasting News Writing and Reporting	3
MCM 3XX	Communications Elective	3
	TOTAL HOURS REQUIRED	9

ELECTIVE COURSES

(Choose any 2 courses from below.)

COURSE	COURSE TITLE	HOURS
MCM 330	ELEC. FIELD PRODUCTION AND EDITING	3
MCM 350	TV Directing	3
MCM 391	Radio and TV Announcing	3
MCM 464	Advanced TV Production	3
MCM 470	Broadcast/Cable Programming	3
MCM 476	Broadcast/Cable Sales	3
MCM 489	Media Management	3
MCM 491	Internet/Web Page Design	3
	TOTAL HOURS REQUIRED	6

TOTAL DEGREE HOURS REQUIRED 15

Minor in Journalism

The following 15 hours are required for a minor in Journalism with a B.A.:

CORE COURSES

(Choose any 3 courses from below.)

COURSE	COURSE TITLE	HOURS
JRN 220	BASIC WRITING	3
JRN 210	Advertising Principles	3
JRN 221	News Writing	3
JRN 240	Public Relations Principles	3
JRN 2XX	Journalism Elective	3
JRN 313	Advertising/Public Campaigns	3
JRN 330	Copy Editing	3
JRN 341	Public Relations Practice	3
JRN 3XX	Journalism Elective	3
	TOTAL HOURS REQUIRED	9

ELECTIVE COURSES

(Choose any 2 courses from below.)

COURSE	COURSE TITLE	HOURS
JRN 332	GRAPHICS OF COMMUNICATION	3
JRN 342	Promotional Writing	3
MCM 491	Internet/Web Page Design	3
MCM 4XX	Communications Elective	3
	TOTAL HOURS REQUIRED	6

TOTAL DEGREE HOURS REQUIRED 15

DEPARTMENT OF MILITARY SCIENCE (ARMY ROTC)

MAJ (P) Daryl L. Collins, 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, instruction in leadership and management, and volunteered off-campus field training exercises. 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. Students entering Advanced Phase must contract with ROTC and must have the permission of the Professor of Military Science. 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. 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	AROTC SUBSTITUTIONS COURSE
HED 100	MSL 101 OR MSL 102
HIS 100, 101, 102, 103	HIS 380
PED 100	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 or room and board. Additionally, scholarship recipients receive \$300-\$500 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.

Non-Scholarship students can also receive \$300 - \$500 per month for each semester once they became a contracted cadet.

Advanced ROTC students are entitled to subsistence pay at the rate of \$300-\$500 per month for each month of the school year, not to exceed 10 months per year. While attending LDAC, 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 VISUAL AND PERFORMING ARTS

Dr. Carl Haywood, Department Head, Music and Fine Arts Divisions
(757) 823-8544

The Division of Music offers one undergraduate degree with two emphases and one graduate degree with three concentrations. The Bachelor of Music in Music Education is designed to prepare teachers of music in 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/Orchestral instruments.

The Bachelor of Music with an 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 courses in 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 Division is an accredited institutional member of the National Association of Schools of Music.



UNDERGRADUATE ADMISSION TO MUSIC

All students who desire entry into programs in music must audition. The audition can be arranged by contacting the music office or any music faculty member. Upon acceptance into the University, the candidate's request to enter Pre – Music is granted conditionally by the Office of Admission. However, final approval is granted by the Division of Music.

At freshman orientation, diagnostic examinations in music fundamentals and sight-singing, an audition on a principal instrument (if not previously auditioned), and a piano placement examination is conducted. The document Auditions and Preliminary Tests in Music on the Division of Music website should be reviewed prior to freshman orientation. Consequently, approved candidates are enrolled in the Pre – Music Curriculum. Taken during the first semester of enrollment, these courses are utilized to canvass the potential of the candidate to fulfill the requirements of the Bachelor of Music (B. M.) curriculum. The courses in the Pre – Music Curriculum are also a part of the Bachelor of Music degree.

Pre – Music Curriculum

<u>Course Number</u>	<u>Course</u>	<u>Hours</u>
MUS 140	Fundamentals of Music	3
MUS 125	Applied Major/Recitals	2
MUS 100B/MUS 121B	Applied Minor	1
MUS 110	Ensemble	1
ENG 101	English	3
IUL 101	Introduction to University Life	3
MTH 103	Contemporary Math	3
Total Hours		16

If the Diagnostic Examination is completed successfully, the sequence below is taken.

<u>Course Number</u>	<u>Course</u>	<u>Hours</u>
MUS 145	Harmony and Keyboard	2
MUS 141	Sight Singing and Ear Training	2
MUS 125	Applied Major/Recitals	2
MUS 100B/MUS 121B	Applied Minor	1
MUS 110	Ensemble	1
ENG 101	English	3
IUL 101	Introduction to University Life	3
MTH 103	Contemporary Math	3
Total Hours		17

Following mid-semester course examinations, a committee comprised of the student's major teacher, theory instructor, and ensemble director will provide a preliminary recommendation to the Director of the Division for program (B. M.) admission. Final approval is forwarded to the Chair by the Committee upon the successful completion of the Pre-Music track.

Bachelor of Music in Music Education -- Instrumental/ Keyboard/ Vocal

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
MTH 103	Mathematics in General Education	3
MUS 110	Ensembles*	1
MUS 111	Ensembles*	1
MUS 121	Applied Minor	1
MUS 122	Applied Minor	1
MUS 125	Applied Major /Recitals	2
MUS 126	Applied Major /Recitals	2
MUS 131	Music Literature**	2
MUS 132	Music Literature**	2
MUS 141	Sight Singing and Ear Training	2
MUS 142	Sight Singing and Ear Training	2
MUS 145	Harmony and Keyboard	2
MUS 146	Harmony and Keyboard	2
PED 100	Fundamentals of Fitness for Life	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CLM 165	Computer Literacy for Musicians	3
HED 100	Personal and Community Health	2
MUS 151	Elementary Conducting	2
MUS 210	Ensembles*	1
MUS 211	Ensembles*	1
MUS 221	Applied Minor	1
MUS 222	Applied Minor	1
MUS 225	Applied Major/Recitals	2
MUS 226	Applied Major/Recitals	2
MUS 241	Sight, Singing and Ear Training	2
MUS 242	Sight, Singing and Ear Training	1
MUS 245	Harmony and Keyboard	2
MUS 246	Harmony and Keyboard	2
MUS 260	Band Instrument Survey(Vocal/ Keyboard)/ MUS 261 Percussion Class (Instrumental)	1
MUS 271	Vocal Diction (Vocal and Keyboard)/ MUS 361 Woodwind Class (Instrumental)	1
MUS 272	Vocal Diction (Vocal)/ MUS 273 Voice Class (Instrumental/ Keyboard)	1
MUS 161	String Class (Instrumental) or Music Elective (Keyboard/ Vocal)	1
EDU 201	Foundations of Education	3
PSY 228	Developmental Psychology	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		32

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science or SCI 101	3
BIO 100L	Biological Science Lab or PHY 100L	1
HIS 100	History of World Societies, Part 1 or HIS 101 or HIS 102 or HIS 103	3
MUS 234	African American Music	3
MUS 310	Ensembles*	1
MUS 311	Ensembles*	1
MUS 325	Applied Major/Recitals	2
MUS 326	Applied Major//Recitals	2
MUS 331	Music History++	2
MUS 332	Music History++	2
MUS 346	Composition	3
MUS 351	Advanced Conducting	2
MUS 362	Brasswind Class (Instrumental or music elective, Vocal/Keyboard)	1
MUS 383/ MUS 383V	Curriculum and Instructional Procedures for Teaching Music in the Public Schools (Vocal or Instrumental)	2
MUS 384/ MUS 384V	Curriculum and Instructional Procedures for Teaching Music in the Public Schools (Vocal or Instrumental)	2
SED 405	Reading in the Content Area	3
TOTAL HOURS REQUIRED		33

** Satisfies the core humanities requirement.

++ In addition to MUS 234, satisfies the core cultural requirement.

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
MUS 410	Ensemble*	1
MUS 425	Applied Major/Recitals	2
MUS 426	Applied Major/Recitals***	2
SED 499	Directed Teaching	12
PHY 154	Physics of Music	3
SCM 285	Principles of Speech	3
EDU 381	Classroom and Behavior Management	3
SOC 110	Introduction to Sociology or SOC 100 or SOC 101	3
TOTAL HOURS REQUIRED		29

***Senior Recital or Senior Jury Required

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	87
Electives	0
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	127

Bachelor of Music Education – Instrumental/ Keyboard/ Vocal

*** ENSEMBLES**

The minimum ensemble requirement for Music Education majors who play band instruments is four semesters of University Band and three semesters of other instrumental ensembles such as jazz ensemble/combo, or percussion, woodwind, or brass ensemble.

The minimum ensemble requirement for vocal Music Education majors is five semesters of Concert Choir and two semesters of Vocal Jazz Ensemble.

****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 499

Directed Teaching (Secondary Level/Elementary level) may be taken before taking the PRAXIS Exam.

Bachelor of Music -- Media

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
PED 100	Fundamentals of Fitness for Life	1
MUS 110	Ensembles *	1
MUS 111	Ensembles *	1
MUS 121	Applied Minor	1
MUS 122	Applied Minor	1
MUS 125	Applied Major/Recitals	2
MUS 126	Applied Major/Recitals	2
MUS 131	Music Literature**	2
MUS 132	Music Literature**	2
MUS 141	Sight, Singing and Ear Training	2
MUS 142	Sight, Singing and Ear Training	2
MUS 145	Harmony and Keyboarding	2
MUS 146	Harmony and Keyboarding	2
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
CLM 165	Computer Literacy for Musicians	3
MTH 103	Mathematics in General Education	3
MCM 211	Society and Mass Communications++	3
MUS 240	Progressive Harmony	3
MUS 210	Ensembles*	1
MUS 211	Ensembles*	1
MUS 241	Sight, Singing and Ear Training	2
MUS 221	Applied Minor	1
MUS 222	Applied Minor	1
MUS 225	Applied Major/Recitals	2
MUS 226	Applied Major/Recitals	2
MUS 151	Elementary Conducting	2
HED 100	Personal and Community Health	2
HIS 100	U.S. History (or HIS 101, 102, 103)	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		33

THIRD YEAR

COURSE	COURSE TITLE	HOURS
MUS 265	Practical Applications of Electronic Music (Midi)	3
MUS 234	African American Music++	3
MUS 310	Ensembles*	1
MUS 311	Ensembles*	1
MUS 243	Melody and Improvisation	3
MUS 325	Applied Major/Recitals	2
MUS 326	Applied Major/Recitals	2
MUS 331	Music History	2
MUS 332	Music History	2
MUS 335	Jazz Literature and Criticism	3
MUS 346	Composition or MUS 247 Twentieth Century	3
PHY 154	Physics of Music	3
SCM 285	Principles of Speech	3
TOTAL HOURS REQUIRED		31

**Satisfies the core humanities requirement.

++ In addition to Music 234, satisfies the core cultural requirement.

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
MCM 261	Introduction to Media Writing	3
MUS 365	Recording Music Production	3
MUS 440	Legal Protection of Music & Musicians	3
MUS 366	Music Video	3
MUS 410	Ensembles*	1
MUS 367	Pro tools	3
MUS 425	Applied Major/Recitals	2
MUS 426	Applied Major/Recitals***	2
MUS 448	Arranging	2
MCM 496	Internship	3
MUS 493	Internship	3
TOTAL HOURS REQUIRED		28

***Senior Recital or Senior Jury Required

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	82
Electives	0
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	122

The two semesters of MUS 131 and MUS 132, and MUS 234 serve as the Humanities requirement in the General Education Core. MCM 211 also serves as the Social Science requirement in the General Education Core.

***ENSEMBLES**

The minimum ensemble requirement for instrumental students whose major is Bachelor of Music with an Emphasis in Media is five consecutive semesters in the University Jazz Ensemble and two semesters of either Symphonic/Concert Band 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 requirement for vocal students whose major is Bachelor of Music with an Emphasis in Media is met by four consecutive semesters of Concert Choir and three semesters of Vocal Jazz Ensemble.

DEPARTMENT OF POLITICAL SCIENCE

Dr. Olusoli Akomolafe, Department Head
(757) 823-8999

The Department of Political Science offers one undergraduate degree program, the Bachelor of Arts in Political Science. The Bachelor of Arts Degree in Political Science is a degree designed to fulfill a wide range of career goals in the field of Political Science. Career areas of interest include, but are not limited to, the following: Law, Public Administration, Urban Planning, International Affairs, and U.S. Politics and Theory. Contact the department for specific courses related to career areas of interest.

The basic objectives of the degree program are as follows:

1. To provide fundamental training for students planning careers in law, public management, political 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 prepare students with the appropriate academic background (i.e., knowledge base and communication skills), which can aid them in performing well in graduate/professional school, in their careers and in the global community.



B.S. IN POLITICAL SCIENCE CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE OR SCI 101	3
BIO 100L	Biological Science Lab or CHM 100L or PHY 100L	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	Mathematics in General Education	3
PED 100	Fundamentals of Fitness for Life	1
POS 100	American National Government	3
POS 180	Introduction to Political Science	3
SCM 285	Principles of Speech	3
IUL 101	Introduction to University Life	3
XXX XXX	Elective	3
TOTAL HOURS REQUIRED		34

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 105	BIOLOGICAL SCIENCE OR CHM 1XX, PHY 1XX, OR SCI 1XX	3
ENG 203	Advanced Communication Skills	3
ENG 114	Techniques of Vocabulary Building	2
HIS 100	History of World Societies, Part 1 or HIS 101, HIS 102 or HIS 103	3
HUM 210	Humanities	3
HUM 211	Humanities	3
LOG 210	Logic: Critical Thinking	3
POS 231	American State and Local Government	3
SOC 101	Introduction to Social Sciences	3
URP 192	Introduction to Urban Planning	3
XXX XXX	Elective	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		32

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CSC 200	ADVANCED COMPUTER CONCEPTS	3
ECN 211	Principles of Microeconomics or ECN 212	3
POS 250	Introduction to Public Administration	3
POS 332	Introduction to Jurisprudence	3
POS 333	Methods of Research	3
POS 345	Statistics and Data Processing	3
POS 3XX	POS 4XX or URP 2XX	3
URP 292	Urban Planning Law	3
XXX XXX	Cultural Elective	3
XXX XXX	Elective	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
POS 337	AMERICAN CONSTITUTIONAL LAW	3
POS 350	Organizational Theory and Behavior	3
POS 360	International Relations Politics	3
POS 3XX	POS 4XX OR URP 2XX	3
POS 431	Modern Political Theory	3
POS 451	Public Personnel Administration	3
XXX XXX	Electives	9
TOTAL HOURS REQUIRED		27

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	59
Electives	21
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	123

CAREER AREAS OF INTEREST

The following courses represent career areas of interest to increase students' preparedness for specific career goals. Students are encouraged to work closely with their advisor prior to taking courses in their career area of interest. Twelve (12) credit hours are needed to fulfill the requirements for each career area of interest in Political Science.

LAW

COURSE	COURSE TITLE
POS 332 *	INTRO TO JURISPRUDENCE
POS 337 *	American Constitutional Law
POS 338 *	American Constitutional Law (POS 3XX)
POS 443 *	Administrative Law (POS 4XX)
POS 494	Pre-Law Internship (POS 4XX)
CJS 200	Introduction to Criminal Justice (Free Elective)
CJS 313	American Court System (Free Elective)

U.S. POLITICS AND THEORY

COURSE	COURSE TITLE
POS 100 *	AMERICAN NATIONAL GOVERNMENT
POS 325 *	American Foreign Policy (POS 3XX)
POS 315 *	African American Politics (POS 3XX)
POS 431 *	Modern Political Theory
POS 430	Political Theory
POS 320	The American Party System

PUBLIC ADMINISTRATION

COURSE	COURSE TITLE
POS 250 *	INTRODUCTION TO PUBLIC ADMINISTRATION
POS 350 *	Organization Theory and Behavior
POS 451 *	Public Personnel Administration
POS 493 *	Public Administration Internship (POS 4XX)
POS 230	American Public Policy
POS 443	Administrative Law (POS 4XX)
ACC 201	Principles of Financial Accounting

INTERNATIONAL AFFAIRS

COURSE	COURSE TITLE
POS 323 *	COMPARATIVE GOVERNMENT
POS 360 *	International Relations
POS 442 *	International Law (POS 4XX)
POS 463 *	Politics of African Nations (POS 4XX)
POS 462	Near Middle East in International Affairs (POS 4XX)
POS 467	Introduction to Non-Western Politics (POS 4XX)
GEO 130	Geography (Recommended) (Free Elective)

URBAN PLANNING

COURSE	COURSE TITLE
URP 192 *	INTRODUCTION TO URBAN PLANNING
URP 292 *	Urban Planning Law
URP 285 *	Urban Land Use Planning (URP 2XX)
URP 380 *	Housing and Community Development (URP 3XX)
URP 355	Economic Development Planning (URP 3XX)
POS 310	Metropolitan and Regional Development (POS 3XX)

****12 credit hours required in order to fulfill the Career Areas of Interest in Political Science.***

- Other courses listed below are Electives for Political Science Majors who choose not to have a Minor in another department.
- Students may minor in Political Science by completing 18 credit hours in Political Science.

Minor in Political Science

REQUIRED COURSES

COURSE	course title	hours
POS 100	AMERICAN NATIONAL GOVERNMENT	3
POS 250	Public Administration	3
POS 332	Introduction to Jurisprudence	3
POS 430	Political Theory	3
POS XXX	Political Science Elective 3XX, POS 4XX, URP 292 or URP 380	3
URP 192	Introduction to Urban Planning	3
TOTAL HOURS REQUIRED		18

TOTAL DEGREE HOURS REQUIRED	18
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The basic objectives of the minor in Political Science are as follows:

1. To provide the scope of basic training for students who may choose, as an option, careers in law, public management, political research, 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. Course Requirements for the Minor in Political Science

NOTE:

In order to complete the Minor in Political Science, students can take up to nine (9) credits that are 100 or 200 level courses; however, students must take a minimum of nine (9) credits at the 300 or 400 level (18 credits total).

- *ENG 210 (Practical Grammar) and Eng 303 (Professional and Technical Writing) are recommended electives.*
- *Students interested in careers which require a specific proficiency (such as mastery of a foreign language) are encouraged to take electives consistent with those career options.*
- *POS 451 - Public Personnel Administration is a prerequisite for POS 493.*
- *POS 493 - Public Administration Internship – This course provides field experience in a public or non-profit agency. Please contact the Public Administration Internship Coordinator for additional requirements.*
- *POS 494 - Pre-law Internship – Please contact the Pre-law Internship Coordinator for the 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.*

Minor in Intelligence Studies

REQUIRED COURSES

COURSE	course title	hours
POS 333	RESEARCH METHODS	3
POS 360	International Relations	3
INS 400	Fundamentals of Intelligence	3
INS 410	Strategic and Critical Management in Intelligence	3
INS 411	Leadership and Diplomacy	3
INS 412	Introduction to Area Studies	3
TOTAL HOURS REQUIRED		18

TOTAL DEGREE HOURS REQUIRED	18
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The minor in intelligence studies is an 18 credit hour program comprising six courses designed to introduce students, with both the scope and depth of theories and research skills. in the science of intelligence gathering required to compete in the current intelligence career market. Minor courses include: POS 333. POS 360, INS 400, INS 410, LNS 411 and LNS 412.

DEPARTMENT OF PSYCHOLOGY

Dr. Ernestine Duncan, 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 paraprofessionals, teachers and behavioral science researchers. All programs are designed to prepare students for rigorous graduate training in psychology. The Department also offers a Master of Arts in Community/Clinical Psychology and is part of the Virginia Consortium Program in Clinical Psychology that offers the Doctor of Philosophy in Clinical Psychology degree. 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 entry-level professionals, 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.



B.A. in Psychology

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
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
LOG 210	Logic: Critical Thinking	3
MTH 103	Mathematics in General Education	3
PED 100	Fundamentals of Fitness for Life	1
PSY 210	Introduction to Psychology	3
PSY 211	Basic Principles of Psychology	3
SOC 101	Introduction to Social Science	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE OR SCI 101 OR SCI 100	6
BIO 100L	Biological Science Lab or CHM 100L	1
CSC 200	Advanced Computer Concepts	3
ECN 211	Principles of Microeconomics	3
ENG 207	Literature of the Western World	3
PSY 270	Statistics in Psychology	3
PSY 280	Abnormal Psychology	3
PSY XXX	Electives	6
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

THIRD YEAR

COURSE	COURSE TITLE	HOURS
HUM 210	HUMANITIES OR MUS 301	3
PSY 360	Experiential Psychology w/ Lab	4
PSY XXX	Electives	9
XXX XXX	Free Electives	6
XXX XXX	Cross Disciplinary Electives	6
XXX XXX	Social Science Elective	3
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
HIS 335	AFRICAN AMERICAN HISTORY, PART 1 OR HIS 336, OR AFRICAN HISTORY HIS 370, HIS 371	3
PSY 492	Psychology Seminar	3
PSY XXX	Electives	6
XXX XXX	Cross Disciplinary Electives	6
XXX XXX	Free Electives	13
TOTAL HOURS REQUIRED		31

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	28
Electives	19
Other Requirements	33
TOTAL DEGREE HOURS REQUIRED	123

Minor in Psychology

PSY 210	INTRODUCTION TO PSYCHOLOGY	3
PSY 211	Basic Principles of Psychology	3
PSY 280	Abnormal Psychology	3
PSY 3XX/ PSY 4XX	300 – 400 level Psychology Courses	6
PSY 4XX	400 Level Psychology Course	3
TOTAL HOURS REQUIRED		18

COURSE	COURSE TITLE	HOURS
TOTAL DEGREE HOURS REQUIRED		18

Students must earn a minimum grade of C in all major courses.

DEPARTMENT OF SOCIOLOGY

Dr. Robert Perkins, Department Head
(757) 823-8852

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 and Urban Affairs.



B.S. in Sociology

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE OR BIO 105 OR BIO 110 OR SCI 101	3
BIO 100L	Biological Science Lab or CHM 100L or PHY 100L	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
HIS 100	History of World Societies, Part 1 or HIS 101, HIS 102 or HIS 103	3
MTH 103	Mathematics in General Education or MTH 105	3
PED 100	Fundamentals of Fitness for Life	1
SOC 101	Introduction to Social Sciences	3
SOC 110	Introduction to Sociology	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	BIOLOGICAL SCIENCE OR BIO 105 OR BIO 110 OR	
CSC 200	Advanced Computer Concepts	
HUM 210	Humanities I or HUM 211 or ENG 207 or MUS 301 or	
LOG 210	Logic: Critical Thinking	
PSY 210	Introduction to Psychology or POS 100 or ECN 211	
SCM 285	Principles of Speech	
SOC 137	Social Problems or CJS 200	
SOC 225	Social Science Research Skills	
ENG 299	Writing Competency Exam	
TOTAL HOURS REQUIRED		

THIRD YEAR

COURSE	COURSE TITLE	HOURS
ENG 383	AFRICAN AMERICAN LITERATURE OR HIS 335 OR HIS 336 OR HIS 370 OR HIS 377 OR PSY 240 OR POS 315 OR SOC 237	3
SOC 338	Sociology of Families or SOC 331	3
SOC 344	Methods of Social Research	3
SOC 355	Elementary Social Statistics	3
SOC 3XX	Sociology or CJS Elective	9
XXX XXX	Free Electives	12
TOTAL HOURS REQUIRED		33

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
SOC 446	SOCIOLOGICAL THEORY	3
SOC 393	Internship or Approved Electives	6
XXX XXX	Approved Elective	3
SOC 462	Complex Organizations	3
SOC 499	Applied Sociology	3
XXX XXX	Free Electives	14
TOTAL HOURS REQUIRED		32

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	45
Electives	35
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	123

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.

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, CJS XXX

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

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 -- CJS 310 - 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

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)
- SOC XXX: 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

COURSE	COURSE TITLE	HOURS
INTRODUCTION		
SOC 110	Introduction to Sociology	3
SOCIAL PROBLEMS (Select One Course)		
SOC 137 SOC 228 SOC 234 CJS 200 SOC 344	Social Problems Demographic Principles Urban Sociology Introduction to Criminal Justice Research Methods of Social Research	3
ORGANIZATION (Select One Course)		
SOC 446 SOC 458 SOC 462	Sociological Theory Social Inequality Complex Organizations	3
GENERAL (Select One Course)		
SOC XXX/ CJS XXX	Sociology Elective (300-400 level) or Criminal Justice Elective (300-400 level)	3
TOTAL HOURS REQUIRED		15

TOTAL DEGREE HOURS REQUIRED	15
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COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY

Dr. Larry Mattix, Acting Dean
Dr. Michael Keeve, Associate Dean
(757) 823-8180

The College of Science, Engineering 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 College 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 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 College of Science, Engineering 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 College of Science, Engineering, 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

The Computing Accreditation Commission of ABET, <http://www.acm.org>

2. Chemistry-American Chemical Society (ACS)

1155 Sixteenth Street, N.W., Washington, DC 20036, (202) 872-4589

3. Engineering

The Engineering Accreditation Commission of ABET, <http://www.abet.org>

4. Medical Technology

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Road, Suite 720 Rosemont, Illinois 60018-5119 (847) 939-3597

5. Nursing B.S.

Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road, NE, Suite 850 Atlanta, GA 30326 (404) 975-5000; Fax: (404) 975-5020 and the Virginia Board of Nursing, Perimeter Center, 9960 Maryland Drive, Suite 300, Henrico, VA 23233-1463 (804) 367-4515.

6. Technology

The Association of Technology, Management, and Applied Engineering (ATMAE), 1390 Eisenhower Place, Ann Arbor, MI 48108, (734) 677-0720

ORGANIZATION OF THE SCHOOL

The courses offered by the College of Science, Engineering, and Technology are organized into departments, which sponsor a wide array of possibilities for students. The following departments are included:

Department of Biology
Department of Chemistry
Department of Computer Science
Department of Engineering
Department of Mathematics
Department of Nursing and Allied Health
Department of Physics
Department of Technology

DEGREES OFFERED

The College of Science, Engineering, and Technology offers programs terminating at the associate, baccalaureate master, and doctorate degree levels. Students admitted to the College of Science, Engineering, and Technology may choose from fields of study in programs terminating at the associate, baccalaureate, master, or doctorate 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

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 G.P.A. of 2.0.
4. Students must submit three letters of recommendation from persons familiar with the students' ability.

ADMISSION TO NURSING

1. Admission to University prior to semester of the desired entry into the nursing sequence.
2. Submission of a separate application for admission to the Nursing Department.
3. 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 G.P.A. of 2.0 in each course.
4. Students must have a cumulative G.P.A. of 2.5 or better in high school or course work.
5. For admission to the Traditional Program, students must have a cumulative grade point average of 2.8 and a minimum grade of "C" in **all** prerequisite courses. Students must complete the National League of Nursing (NLN) RN Preadmission Exam. (See Nursing Program for additional criteria).
6. For admission to the Upper Level Baccalaureate Program (RN-Completion), student must be licensed in the Commonwealth of Virginia as a RN.
7. For admission to the 2nd Degree Program, student must have completed an undergraduate or higher degree and defined pre-requisites.
8. For admission to the LPN to BSN Program, student must be licensed in the Commonwealth of Virginia as a LPN and must have completed defined prerequisites.

DEPARTMENT OF BIOLOGY

Dr. Malikah Abdullah, Acting Department Head
(757) 823-8512

The Biology Department provides a diversity of career options through three 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 three B.S. option areas are as follows:

1. **BIOLOGY 1** enables majors to pursue graduate degrees with an option for employment at the bachelor level.
2. **BIOLOGY 2** students will follow Option 1 then seek specific endorsement. (e.g., teachers' licensure)
3. **BIOLOGY 3 PRE-PROFESSIONAL** 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 who work 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 three 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.

B.S. in Biology

BIOLOGY 1 CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 110	GENERAL BIOLOGY I	3
BIO 110L	General Biology I Lab	1
BIO 111	General Biology II	3
BIO 111L	General Biology II Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 100	History of World Societies, Part 1	3
HIS 101	History of World Societies, Part 2	3
MTH 151	College Algebra	3
MTH 153	College Algebra and Trigonometry	3
PED 100	Fundamentals of Fitness for Life	1
IUL 101	Introduction to University Life	3
	TOTAL HOURS REQUIRED	32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 260	GENERAL ZOOLOGY	3
BIO 260L	General Zoology Lab	1
BIO 261	General Botany	3
BIO 261L	General Botany Lab	1
BIO 271	Ecology or BIO 350 or BIO 274	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
CSC 150	Computer Literacy or CSC 200 Advanced Computer Concepts	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
ENG 299	Writing Competency Exam	0
	TOTAL HOURS REQUIRED	32

Third Year

COURSE	COURSE TITLE	HOURS
BIO 263	Vertebrate Embryology	4
BIO 270	Comparative Anatomy of Vertebrates	4
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 322L	Organic Chemistry II Lab	2
PHY 152	General Physics	3
PHY 152L	General Physics Lab	1
PHY 153	General Physics II	3
PHY 153L	General Physics II Lab	1
	TOTAL HOURS REQUIRED	30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
BIO 351	Principles of Genetics	4
BIO 364	Seminar and Colloquium in Biology	1
BIO 459	General Physiology	4
BIO 474	Molecular Biology and BIO 474L and BIO 495	8
FIA 301	Art Appreciation and/or HUM 210 and/or MUS 301 and/or ENG 207	6
XXX XXX	African American Elective from the General Education Core*	3
XXX XXX	Non-Restricted Electives	3
	TOTAL HOURS REQUIRED	29

* Select two (2) from ENG 383, FIA 170, HIS 335, or MUS 234

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	42
Major Requirements	54
Electives	9
Other Requirements	15
TOTAL DEGREE HOURS REQUIRED	123

Teacher Licensure Endorsement in Biology

BIOLOGY 2 CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 110	General Biology I	3
BIO 110L	General Biology I Lab	1
BIO 111	General Biology II	3
BIO 111L	General Biology II Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 100	History of World Societies, Part 1	3
HIS 101	History of World Societies, Part 2	3
MTH 151	College Algebra	3
MTH 153	College Algebra and Trigonometry	3
PED 100	Fundamentals of Fitness for Life	1
CSC 150	Computer Literacy or CSC 200 Advance Concepts	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		35

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 260	General Zoology	3
BIO 260L	General Zoology Lab	1
BIO 261	General Botany	3
BIO 261L	General Botany Lab	1
BIO 271	Ecology	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
EDU 201	Foundations of Education	3
HUM 210	Humanities	3
XXX-XXX	African-American Elective	3
FRN 112	Introduction to French, Spanish, or German	3
SCM 285	Principles of Speech	3
TOTAL HOURS REQUIRED		35

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BIO 351	Principles of Heredity	4
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 322L	Organic Chemistry II Lab	2
PHY 152	General Physics	3
PHY 152L	General Physics Lab	1
PHY 153	General Physics II	3
PHY 153L	General Physics II Lab	1
BIO 272	Human Anatomy	4
SED 381	Classroom and Behavior Management	3
SED 385	Curriculum and Instruction Procedures for Teaching	3
TOTAL HOURS REQUIRED		36

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
BIO 278	Cell Biology	4
BIO 459	General Physiology	4
BIO 364	Seminar in Biology	1
SED 405	Reading in the Content Area	3
SCI 401	Geological Material and Processes	4
EDU 486	Human Growth and Development	3
SED 499	Directed Teaching	12
TOTAL HOURS REQUIRED		31

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	34
Restricted Electives	33
Education	27
TOTAL DEGREE HOURS REQUIRED	137

B.S. in Biology -- Pre-Professional

BIOLOGY 3 CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 110	General Biology I	3
BIO 110L	General Biology I Lab	1
BIO 111	General Biology II	3
BIO 111L	General Biology II Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS 100	History of World Societies, Part 1	3
HIS 101	History of World Societies, Part 2	3
MTH 151	College Algebra	3
MTH 153	College Algebra and Trigonometry	3
PED 100	Fundamentals of Fitness for Life	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 260	General Zoology	3
BIO 260L	General Zoology Lab	1
BIO 261	General Botany	3
BIO 261L	General Botany Lab	1
BIO 271	Ecology or BIO 350 or BIO 362	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
TOTAL HOURS REQUIRED		32

ENG 299	Writing Competency Exam	0
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THIRD YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	Electives (nonrestrictive)	3
BIO 263	Vertebrate Embryology	4
BIO 270	Comparative Anatomy of Vertebrates	4
BIO 310	General Microbiology	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 I	3
PHY 153	General Physics II	3
PHY 152L	General Physics I Lab	1
PHY 153L	General Physics II Lab	1
TOTAL HOURS REQUIRED		33

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
HIS 335	African American History, Part 1 or FIA 170 or ENG 383 or MUS 234	3
BIO 351	Principles of Genetics	4
BIO 364	Seminar and Colloquium in Biology	1
BIO 459	General Physiology	4
BIO 469	Biochemistry I	3
BIO 469L	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
TOTAL HOURS REQUIRED		26

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	42
Major Requirements	75
Electives	3
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	123

Certificate Program in Biotechnology

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

OPTION 1

COURSE	COURSE TITLE
BIO 474	Molecular Biology: Three credit hours. Prerequisites- BIO 351 Principles of Genetics, BIO 310, CHM 222, CHM 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
BIO 469	Biochemistry I Lecture: Three credit hours; Prerequisites CHM 322 and
BIO 469L	Biochemistry I Laboratory: One credit hour; Prerequisites CHM 322L

OPTION 2

COURSE	COURSE TITLE
CHM 431	Biochemistry I: Three credit hours. Prerequisites – CHM 322 and CHM 362
CHM 431L	Biochemistry I Laboratory; One credit hours. Prerequisites – CHM 322L or CHM 323L
CHM 432	Biochemistry II: Three credit hours. Prerequisites – CHM 322 and CHM 362
CHM 432L	Biochemistry II Laboratory: One credit hour. Prerequisites – CHM 322L or CHM 323L
CHM 481	Special Topics in Chemistry: Three credit hours. Prerequisites – Approval of Chemistry Department

Minor in Biology

Completion of a minor requires that a student earn a grade of “C” (2.0) or better in each of the required courses. Substitutions are not possible for core courses.

(CHOOSE UP TO TWO)

ADDITIONAL COURSE REQUIREMENTS

CORE COURSES

COURSE	COURSE TITLE	HOURS
BIO 110	General Biology I	3
BIO 110L	General Biology Lab	1
BIO 111	General Biology II	3
BIO 111L	General Biology II Lab	1
BIO 260	General Zoology	3
BIO 260L	General Zoology Lab	1
BIO 261	General Botany	3
BIO 261L	General Botany Lab	1
TOTAL HOURS REQUIRED		16

COURSE	COURSE TITLE	HOURS
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	1
BIO 351	Genetics	3
BIO 351L	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 HOURS REQUIRED		3-6

TOTAL DEGREE HOURS REQUIRED	19-22
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DEPARTMENT OF CHEMISTRY

Dr. Aleicia McClain, 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), 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.

B.S. in Chemistry

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CHM 221L	General Chemistry I Lab	1
CHM 222L	General Chemistry II Lab	1
CHM 223A	General Chemistry I	4
CHM 224A	General Chemistry II	4
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
PHY 152	General Physics I	3
PHY 152L	General Physics I Lab	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
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
CHM 331	Analytical Chemistry I	3
CHM 331L	Analytical Chemistry I Lab	2
CHM 351	Seminar or CHM 352	1
CSC 170	Computer Programming	3
CSC 170L	Computer Programming Lab	1
MTH 251	Calculus II	4
MTH 252	Calculus III	4
PHY 153	General Physics II	3
PHY 153L	General Physics II Lab	1
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		32

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BIO 110	General Biology	3
BIO 110L	General Biology Lab	1
CHM 332	Analytical Chemistry II	3
CHM 332L	Analytical Chemistry II Lab	2
CHM 345	Math Methods and Logic	3
CHM 361	Physical Chemistry I	3
CHM 362	Physical Chemistry II	3
CHM 363L	Physical Chemistry Lab	2
XXX XXX	Elective	3
HIS XXX	History from the Core	3
SCM 285	Principles of Speech	3
TOTAL HOURS REQUIRED		29

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
CHM 431	Biochemistry	3
CHM 451	Seminar or CHM 452	1
CHM 473	Advanced Inorganic Chemistry	3
CHM 497	Introduction to Research or CHM 498	1
CHM XXX	Chemistry (Restrictive Electives)*	6
SOC 101	Introduction to Social Science	3
XXX XXX	Electives	3
XXX XXX	Cultural Elective from the Core	3
XXX XXX	Humanities from the Core	6
TOTAL HOURS REQUIRED		29

* Select 6 hours from 400 level Chemistry Electives. Maximum of 3 total hours of research

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	44
Electives	21
Other Requirements	15
TOTAL DEGREE HOURS REQUIRED	123

B.S. in Chemistry -- Secondary Education

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CHM 221L*	General Chemistry I Lab	1
CHM 222L	General Chemistry II Lab	1
CHM 223A*	General Chemistry I	4
CHM 224A	General Chemistry II	4
CSC 170	Computer Programming	3
CSC 170L	Computer Programming Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
HIS XXX	History Elective (from the General Education Core)	3
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus I	4
PED 100	Fundamentals of Fitness for Life	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		36

SECOND YEAR

COURSE	COURSE TITLE	HOURS
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
EDU 201	Foundations of Education	3
EDU 381	Classroom and Behavior Management	3
MTH 251	Calculus II	4
PHY 152	General Physics I	3
PHY 152L	General Physics I Lab	1
PHY 153	General Physics II	3
PHY 153L	General Physics II Lab	1
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BIO 110	General Biology	3
BIO 110L	General Biology Lab	1
CHM 332	Analytical Chemistry II	3
CHM 332L	Analytical Chemistry II Lab	2
CHM 351	Seminar or CHM 352	1
CHM 361	Physical Chemistry I	3
CHM 363L	Physical Chemistry Lab	2
SCM 285	Principles of Speech	3
SED 385	Curriculum and Instructional Procedures in Teaching Reading in Secondary Schools	3
SOC 101	Introduction to Social Science	3
XXX XXX	Cultural Elective (from the General Education Core)	3
XXX XXX	Humanities Elective (from the General Education Core)	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
CHM 397	Introduction to Research or CHM 398	1
CHM 431	Biochemistry	3
CHM 351	Seminar or CHM 352	1
CHM 451	Seminar or CHM 452	1
CHM 473	Advanced Inorganic Chemistry	3
PSY 228	Human Growth and Development	3
SED 405	Reading in the Content Areas	3
SED 499	Directed Teaching	3
XXX XXX	Electives	2
XXX XXX	Cultural Elective (from the General Education Core)	3
XXX XXX	Humanities Elective (from the General Education Core)	3
TOTAL HOURS REQUIRED		26

* May be taken during the freshman year upon the approval of the advisor.

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	44
Electives	20
Other Requirements	16
TOTAL DEGREE HOURS REQUIRED	123

Teacher Licensure Endorsement in Chemistry

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).

COURSE	COURSE TITLE
EDU 201	Foundations of Education
SED 233	Seminar in Assessment and Evaluation
SED 380	Foundations of Methods in Secondary Schools
SED 384	Teaching of Mathematics and Sciences in Secondary Schools
SED 486	Educational Psychology and Behavior Management
SED 499	Directed Teaching and Seminar

College of Science, Engineering, and Technology

B.S. in Chemistry -- Pre-Medicine

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CHM 223A	General Chemistry I	4
CHM 224A	General Chemistry II	4
CHM 221L	General Chemistry I Lab	1
CHM 222L	General Chemistry II Lab	1
PHY 152	General Physics I	3
PHY 152L	General Physics I Lab	1
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
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
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
CHM 331	Analytical Chemistry I	3
CHM 331L	Analytical Chemistry I Lab	2
CSC 170	Computer Programming	3
CSC 170L	Computer Programming Lab	1
MTH 251	Calculus II	4
MTH 252	Calculus III	4
PHY 153	General Physics II	3
PHY 153L	General Physics II Lab	1
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BIO XXX	Restricted Biology Elective	3
HIS XXX	History from the Core	3
BIO 110	General Biology	3
BIO 110L	General Biology Lab	1
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
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
BIO XXX	Biology Electives	4
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 473	Advanced Inorganic Chemistry	3
CHM 497	Introduction to Research	1
SOC 101	Introduction to Social Science	3
XXX XXX	Cultural Elective from the Core	3
XXX XXX	Humanities from the Core	6
TOTAL HOURS REQUIRED		31

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	10
Other Requirements	18
TOTAL DEGREE HOURS REQUIRED	125

Five-Year Dual Degree: B.S. in Chemistry and M.S. in Materials Science

CHEMISTRY CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CHM 223	General Chemistry I	4
CHM 224	General Chemistry II	4
CHM 221L	General Chemistry I Lab	1
CHM 222L	General Chemistry II Lab	1
CSC 170/ CSC 170L	Computer Programming and Lab	4
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
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
SCM 285	Principles of Speech	3
CHM 321/ CHM 321L	Organic Chemistry I and Lab	5
CHM 322/ CHM 322L	Organic Chemistry II and Lab	5
CHM 331/ CHM 331L	Analytical Chemistry I and Lab	5
MTH 251	Calculus II	4
MTH 252	Calculus III	4
PHY 160/ PHY 160L	University Physics I and Lab	5
PHY 161/ PHY 161L	University Physics II and Lab	5
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		36

THIRD YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	History from the Core	3
XXX XXX	Chemistry Elective	2
XXX XXX	Humanities from the Core**	3
CHM 332/ CHM 332L	Analytical Chemistry II	5
CHM 361	Physical Chemistry I	3
CHM 362	Physical Chemistry II	3
CHM 363L	Physical Chemistry Lab	2
CHM 345	Math Methods and Logic	3
MTH 372	Differential Equations	3
SOC 101	Introduction to Social Science	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	Cultural Elective from the Core***	3
XXX XXX	Unrestrictive Elective	3
XXX XXX	Humanities from Core**	3
XXX XXX	Restrictive Chemistry Elective****	3
CHM 451	Seminar or CHM 452	1
CHM 473	Advanced Inorganic Chemistry	3
CHM 545	Math Methods	3
MATS 530	Materials Science	3
BIO 110	General Biology	4
PHY 356	Heat and Thermodynamics	3
PHY 580	Quantum Mechanics for Materials Science	3
TOTAL HOURS REQUIRED		32

Continue to next page →

Five-Year Dual Degree: B.S. in Chemistry and M.S. in Materials Science

MATERIALS SCIENCE CURRICULUM

SUMMER

COURSE	COURSE TITLE	HOURS
MATS 697	Research I	3
TOTAL HOURS REQUIRED		3

FIFTH YEAR

COURSE	COURSE TITLE	HOURS
MSE 533	Polymers and Polymer-Based Composites	3
XXX XXX	Technical Elective	3
XXX XXX	Technical Elective	3
MSE 535	Electronic and Optical Materials	3
MSE 575	Instrumentation for Materials Characterization	3
MATS 799	Thesis Research	3
XXX XXX	Technical Elective	3
TOTAL HOURS REQUIRED		21

* Select one from: HIS 100, 101, 102, or 103

** Select one from: HUM 210, 211, ENG 383, FIA 170, or MUS 234

*** Select one from: HIS 335, HIS 336, HIS 370, HIS 371, HIS 377, ENG 383, PSY 340, SOC 237, POS 315, FIA 170, or MUS 234

**** Select one from: CHM 431, CHM 432, CHM 431L, CHM 432L, CHM 473L, CHM 475, CHM 476, CHM 481, CHM 461L, CHM 462L, CHM 478, CHM 397, CHM 398, CHM 497, CHM 498

TECHNICAL ELECTIVES

COURSE	COURSE TITLE	HOURS
CHM 573	Advanced Inorganic Chemistry	3
CHM 633	Molecular Dynamics	3
CHM 663	Atomic and Molecular Spectroscopy	3
PHY 653	Solid State Physics	3
PHY 675	Electricity and Magnetism	3
MATS 610	Special Topics	3
MATS 710	Special Topics	3

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	21
Other Requirements	37
TOTAL DEGREE HOURS REQUIRED	155

DEPARTMENT OF COMPUTER SCIENCE

B.S. in Computer Science

Dr. Aurelia T. Williams, 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.

PROGRAM EDUCATIONAL OBJECTIVES

A graduate of the Undergraduate Computer Science Program at Norfolk State University will be able:

1. To work successfully, both independently and in team environments.
2. To communicate effectively, both orally and in writing.
3. To pursue advanced study or engage in professional practice within the computing profession.
4. To engage in the practice of life-long learning to enhance their capabilities.
5. To practice ethical behavior in their professional endeavors.
6. To address contemporary issues by using evolving technologies, analytical thinking, and design methodologies.

STUDENT LEARNING OUTCOMES

Upon graduation, computer science students will demonstrate an:

- a. Ability to apply knowledge of computing and mathematics appropriate to the discipline
- b. Ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
- c. Ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs
- d. Ability to function effectively on teams to accomplish a common goal
- e. Understanding of professional, ethical, legal, security, and social issues and responsibilities
- f. Ability to communicate effectively with a range of audiences
- g. Ability to analyze the local and global impact of computing on individuals, organizations and society
- h. Recognition of the need for and an ability to engage in continuing professional development
- i. Ability to use current techniques, skills, and tools necessary for computing practices
- j. Ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices
- k. Ability to apply design and develop principles in the construction of software systems of varying complexity

Minor in Computer Science – Standard Track

A Computer Science Minor consists of the following 18 credit hours of required courses:

COURSE	COURSE TITLE	HOURS
CSC 170	Computer Programming I	3
CSC 260	Computer Programming II	3
CSC 268	Computer Organization	3
CSC 372	Data Structures	3
CSC 464	Operating Systems	3
CSC XXX	Elective at the 300 or 400 level	3
TOTAL HOURS REQUIRED		18

TOTAL DEGREE HOURS REQUIRED	18
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GENERAL DEPARTMENT REQUIREMENTS

Computer Science and Information Technology majors must complete at least 120 credits to complete the B.S. degree. Additionally:

Students must meet prerequisites or their equivalents prior to enrolling in more advanced computer science or information technology courses.

Computer Science majors must earn at least a “C” grade in all English, Science, Mathematics and Computer Science courses. Also majors with a specialty in computer engineering must receive a “C” grade or better in all engineering courses, and majors with a specialty in information systems must receive a “C” grade or better in all courses taken in the School of Business.

The B.S. degree program in Computer Science is accredited by the Computing Accreditation Commission of ABET. <http://www.abet.org>

Information Technology majors must earn at least a “C” grade in IUL 101, all English, Science, Mathematics, Computer Science courses and all courses with the ITE, CIT and IMT prefixes.

B.S. in Computer Science – Standard Track

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
PED 100	Fundamentals of Fitness Life	1
HED 100	Personal and Community Health	2
CSC 101	Introduction to the Computer Science Professions	1
CSC 170	Computer Programming I	3
CSC 170L	Computer Programming I Lab	1
CSC 260	Computer Programming II	3
CSC 260L	Computer Programming II Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus I	4
IUL 101	Introduction to University Life	3
XXX XXX	Social Science Elective	3
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CSC 268	Computer Organization	3
CSC 295	Java Applications Programming	3
ENG 299	Writing Competency Exam	0
ENG 303	Technical Writing	3
CSC 361	Survey of Programming Languages	3
MTH 251	Calculus II	4
MTH 371	Discrete Mathematical Structures	4
CSC 372	Data Structures	3
SCM 285	Principles of Speech	3
XXX XXX	Laboratory Science Elective (BIO 110, PHY 152, or CHM 221 and the corresponding Laboratory)	4
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CSC 292	Unix and C Programming	3
CSC 468	Computer Architecture	3
XXX XXX	Computer Science Electives (300 or above)	3
CSC 380	Software Engineering	3
MTH 351	Probability and Statistics I	3
XXX XXX	Humanities or Foreign Languages	3
XXX XXX	Laboratory Science Elective Sequence (BIO 110/110L, PHY 152/152L, or CHM 221/221L)	4
XXX XXX	Laboratory Science Elective Sequence (BIO 111/111L, PHY 153/153L, or CHM 222/222L)	4
CSC 430	Data Communication	3
TOTAL HOURS REQUIRED		29

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
CSC 464	Operating Systems	3
CSC 498	Computer Science Seminar I	1
CSC 499	Computer Science Seminar II	2
XXX XXX	Humanities Cultural Elective I	3
MTH XXX	Mathematics Elective(300 level or above)	3
XXX XXX	Computer Science Electives (300 Level or above)	9
XXX XXX	Computer Science or Mathematics Elective (300 level or above)	3
XXX XXX	Social Science Cultural Elective	3
XXX XXX	Free Elective	3
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	53
Electives	27
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	120

College of Science, Engineering, and Technology

B.S. in Computer Science –Track CE

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
PED 100	Fundamentals of Fitness Life	1
HED 100	Personal and Community Health	2
CSC 101	Introduction to the Computer Science Profession	1
CSC 170	Computer Programming I	3
CSC 170L	Computer Programming I Lab	1
CSC 260	Computer Programming II	3
CSC 260L	Computer Programming II Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus I	4
IUL 101	Introduction to University Life	3
CSC 268	Computer Organization	3
TOTAL HOURS REQUIRED		31

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CSC 292	Unix and C Programming	3
CSC 361	Survey of Programming Language	3
EEN 201/ EEN 201L	Elect Network Theory & Lab	4
CSC 380	Software Engineering	3
EEN 231	Digital Electronics Logic Design	3
ENG 303	Technical Writing	3
MTH 351	Probability and Statistics	3
MTH 371	Discrete Mathematical Structures	4
MTH 372	Differential Equations	3
EEN 203	Electronic Principles	3
TOTAL HOURS REQUIRED		32

FOURTH YEAR

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CSC 372	Data Structures	3
CSC 295	Java Applications Programming	3
MTH 251	Calculus II	4
MTH 252	Calculus III	4
XXX XXX	Social Science Elective	3
PHY 160/ PHY 160L	University Physics I and Lab	5
PHY 161/ PHY161L	University Physics II and Lab	5
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

COURSE	COURSE TITLE	HOURS
XXX XXX	Social Science Cultural Elective	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
CSC XXX	Computer Science Elective 300 level or above	3
EEN 331/ EEN331L	Microprocessors and Laboratory	4
XXX XXX	Humanities Elective	3
XXX XXX	Humanities Cultural Elective	3
XXX XXX	Laboratory Science Elective Sequence (BIO 110/110L or CHM 221/221L)	4
TOTAL HOURS REQUIRED		32

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	73
Electives	12
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	125

B.S. in Computer Science –Track IS

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
PED 100	Fundamentals of Fitness Life	1
HED 100	Personal and Community Health	2
CSC 101	Introduction to the Computer Science Profession	1
CSC 170	Computer Programming I	3
CSC 170L	Computer Programming I Lab	1
CSC 260	Computer Programming II	3
CSC 260L	Computer Programming II Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus I	4
IUL 101	Introduction to University Life	3
XXX XXX	Social Science Elective	3
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CSC 268	Computer Organization	3
CSC 372	Data Structures	3
CSC 295	Java Applications Programming	3
XXX XXX	Business Electives (see list below)	3
MTH 251	Calculus II	4
MTH 371	Discrete Mathematical Structures	4
PSY 210	Introduction to Psychology	3
SCM 285	Principles of Speech	3
XXX XXX	Laboratory Science Elective (BIO 110/110L, PHY 152/152L, or CHM 221/221L)	4
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CSC 292	Unix and C Programming	3
CSC 361	Survey of Programming Languages	3
CSC 430	Data Communications	3
CSC 380	Software Engineering	3

COURSE	COURSE TITLE	HOURS
MTH 351	Probability and Statistics I	3
ENG 303	Technical Writing	3
XXX XXX	Humanities or Foreign Language	3
XXX XXX	Social Science Cultural Elective	3
XXX XXX	Laboratory Science Elective Sequence (BIO 110/110L, PHY 152/152L, or CHM 221/221L)	4
XXX XXX	Laboratory Science Elective Sequence (BIO 111/111L, PHY 153/153L, or CHM 222/222L)	4
TOTAL HOURS REQUIRED		32

FOURTH YEAR

CSC 420	Database Principles and Design	3
CSC 422	Database Implementation	3
MTH XXX	Mathematics Elective(300 level or above)	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
MIS 410	Systems Analysis	3
XXX XXX	Humanities Cultural Elective	3
XXX XXX	Business Electives	3
TOTAL HOURS REQUIRED		27

BUSINESS ELECTIVES

COURSE	COURSE TITLE
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

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	56
Electives	24
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	120

College of Science, Engineering, and Technology

B.S. in Computer Science –Track IA

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
PED 100	Fundamentals of Fitness Life	1
HED 100	Personal and Community Health	2
CSC 101	Introduction to the Computer Science Profession	1
CSC 170	Computer Programming I	3
CSC 170L	Computer Programming I Lab	1
CSC 260	Computer Programming II	3
CSC 260L	Computer Programming II Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus I	4
IUL 101	Introduction to University Life	3
XXX XXX	Social Science Elective	3
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CSC 268	Computer Organization	3
CSC 295	Java Applications Programming	3
ENG 299	Writing Competency Exam	0
ENG 303	Technical Writing	3
CSC 275	Fundamentals of Cybersecurity	3
MTH 251	Calculus II	4
MTH 371	Discrete Mathematical Structures	4
CSC 372	Data Structures	3
SCM 285	Principles of Speech	3
XXX XXX	Laboratory Science Elective (BIO 110, PHY 152, or CHM 221 and the corresponding Laboratory)	4
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CSC 292	Unix and C Programming	3
CSC 442	Cryptography and Network Security	3
CSC 420	Database Principles and Design	3
CSC 380	Software Engineering	3
MTH 351	Probability and Statistics I	3
XXX XXX	Humanities or Foreign Languages	3
XXX XXX	Laboratory Science Elective Sequence (BIO 110/110L, PHY 152/152L, or CHM 221/221L)	4
XXX XXX	Laboratory Science Elective Sequence (BIO 111/111L, PHY 153/153L, or CHM 222/222L)	4
CSC 361	Survey of Programming Languages	3
TOTAL HOURS REQUIRED		32

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
CSC 445	Computer Network Defense	3
CSC 468	Computer Architecture	3
CSC 464	Operating Systems	3
CSC 498	Computer Science Seminar I	1
CSC 499	Computer Science Seminar II	2
XXX XXX	Humanities Cultural Elective I	3
MTH XXX	Mathematics Elective(300 level or above)	3
CSC 313	Network Administration	3
CSC 494	Digital Forensics	3
XXX XXX	Social Science Cultural Elective	3
TOTAL HOURS REQUIRED		27

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	74
Electives	6
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	120

B.S. in Information Technology

Dr. Aurelia T. Williams, Department Head
(757) 823-9454

The Information Technology Program aims to provide graduates with the skills and knowledge to take on appropriate professional positions in Information Technology upon graduation and grow into leadership positions or pursue research or graduate studies in the field.

PROGRAM EDUCATIONAL OBJECTIVES

A graduate of the Undergraduate Computer Science Program at Norfolk State University will be able:

1. To work successfully, both independently and in team environments.
2. To communicate effectively, both orally and in writing.
3. To pursue advanced study or engage in professional practice within the computing profession.
4. To engage in the practice of life-long learning to enhance their capabilities.
5. To practice ethical behavior in their professional endeavors.
6. To address contemporary issues by using evolving technologies, analytical thinking, and design methodologies.

STUDENT LEARNING OUTCOMES

Upon graduation, computer science students will demonstrate an:

- a. An ability to apply knowledge of computing and mathematics appropriate to the discipline;
- b. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
- c. An ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs;
- d. An ability to function effectively on teams to accomplish a common goal;
- e. An understanding of professional, ethical, legal, security, and social issues and responsibilities;
- f. An ability to communicate effectively with a range of audiences;
- g. An ability to analyze the local and global impact of computing on individuals, organizations and society;
- h. Recognition of the need for, and an ability to engage in, continuing professional development;
- i. An ability to use current techniques, skills, and tools necessary for computing practices;
- j. An ability to use and apply current technical concepts and practices in the core information technologies
- k. An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems
- l. An ability to effectively integrate IT-based solutions into the user environment
- m. An understanding of best practices and standards and their application
- n. An ability to assist in the creation of an effective project plan

B.S. in Information Technology

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CSC 101	Introduction to the Computer Science Profession	1
ITE 111	Information Technology Principles	3
CSC 170/ CSC170L	Computer Programming I and Lab	4
CSC 260/ CSC260L	Computer Programming II and Lab	4
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
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		34

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ITE 195	Introduction to Internet Programming	3
ITE 211	Information Technology Operating Systems	3
CSC 268	Computer Organization	3
ITE 311	Fundamentals of Networking	3
CSC 360	User Interface Design	3
MTH 371	Discrete Mathematical Structures	4
XXX XXX	Laboratory Sequences: choose one sequence of Biology (BIO 110/110L and 111/111L) or Chemistry (CHM 221/221L and 222/222L) or Physics (PHY 152/152L and 153/153L)	8
XXX XXX	Concentration Elective (see below)	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CSC 380	Software Engineering	3
CSC 420	Database Principles and Design	3
CSC 435	Computer Security I	3
IMT 244	Industrial Specifications and Technical Documentation	3
MTH 250	Elementary Statistics Concepts	3
SCM 285	Principles of Speech	3
XXX XXX	Two Concentration Electives (see below)	6
XXX XXX	Humanities Elective	3
XXX XXX	Social Science Elective	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
CSC 498	Senior Seminar I	1
CSC 499	Senior Seminar II	2
IMT 303	Internship in Technology	3
IMT 413	Project Management	3
XXX XXX	CSC Elective (300 level or above)	3
XXX XXX	Two Concentration Electives (see below)	6
XXX XXX	Humanities Cultural Elective	3
XXX XXX	Free Electives	5
XXX XXX	Social Science Cultural Elective	3
TOTAL HOURS REQUIRED		29

CONCENTRATION ELECTIVES

COURSE	COURSE TITLE	HOURS
FIA 260	Introduction to Graphics Design	3
MIS 410	Systems Analysis and Design	3
CSC 292	UNIX and C Programming	3
CSC 312	Topics in Information Technology	3
CSC 313	Network Administration	3
CSC 314	Advanced Internet Programming	3
CSC 411	Web Server Administration	3
CSC 422	Database Implementation	3
CSC 432	Wireless Data Networking	3
CSC 445	Computer Network Defense	3
CIT 336L	Computer Network Technology Lab	1
CIT 436/ CIT 436L	Computer Network Technology II and Lab	4

TOTAL DEGREE HOURS REQUIRED 120

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	53
Electives	27
Other Requirements	0

DEPARTMENT OF ENGINEERING

Dr. Kyo D. Song, Department Head
(757) 823-8105

The Department of Engineering at Norfolk State University offers B.S. degrees in Electrical and Electronics Engineering and Optical Engineering and an M.S. degree in Electronics Engineering. The Department's Engineering Advisory Board is composed of national leaders from government, universities, and industry. The Advisory Board helps to set the vision for departmental initiatives.

The Department of Engineering offers its students curricula that focus on key concepts and developments in the Electrical, Electronics and Optical engineering fields.

The B.S. and M.S. degree programs provide students with exciting opportunities to conduct research at major research facilities of the university and other research laboratories, both nationally and internationally. Areas of research include biomedical engineering, carbon electronics, gaming, image processing, microelectronics, modeling and simulation, nanotechnology, high power electronics, optoelectronics, photonics, and quantum optics.

The mission of the Department of Engineering is to empower students with the knowledge, skills, and abilities needed for successful professional careers in engineering; to encourage innovation, creativity and an entrepreneurial spirit; to instill a sense of community responsibility; and to develop leaders for a technology-driven global society.

In order to provide the best possible undergraduate education, the department embraces the standards established by ABET, Inc., the sole accrediting agency for engineering programs in the United States. The B.S. programs in Electrical and Electronics Engineering and Optical Engineering are accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>

GENERAL DEPARTMENT REQUIREMENTS

All students must complete the University's general education requirements to qualify for the Bachelor of Science degree. Additionally, the department requires that all majors:

- meet prerequisites or their equivalents before enrolling in engineering courses;

- earn a grade of "C" or better in IUL 101, all English, mathematics, science and engineering courses; and,
- complete a senior design project.

ELECTRICAL AND ELECTRONICS ENGINEERING OBJECTIVES

The Norfolk State University Electrical and Electronics Engineering program faculty have identified a set of program educational objectives that describe the expected abilities of graduates as they enter the workforce. Graduates of the Electrical and Electronics Engineering program will:

- Devise technical solutions based on sound principles in science and engineering;
- Be effective communicators of technical information within professional settings or to broader audiences;
- Be ethically responsible members of the engineering community and cognizant of societal impacts of engineering solutions; and
- Continue their professional development in business settings or through advanced degree attainment.

OPTICAL ENGINEERING OBJECTIVES

The Norfolk State University Optical Engineering program faculty have identified a set of program educational objectives that describe the expected abilities of graduates as they enter the workforce. Graduates of the Optical Engineering program will:

- Devise technical solutions based on sound principles in science and engineering;
- Be effective communicators of technical information within professional settings or to broader audiences;
- Be ethically responsible members of the engineering community and cognizant of societal impacts of engineering solutions; and
- Continue their professional development in business settings or through advanced degree or through advanced degree attainment.

B.S. in Electrical and Electronics Engineering

CURRICULUM

The B.S. degree program in Electrical and Electronics Engineering provides emphasis in microelectronics, digital and analog networks, communications, and control systems. The curriculum is designed to give students a thorough knowledge of the methods of design, application, and analysis of electronic systems.

FIRST YEAR

COURSE	COURSE TITLE	HOURS
EEE 100	Introduction to Engineering	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	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 I Lab	1
CSC 170	Computer Programming I (C++)	3
EEE 101	Engineering Problem Solving	2
PHY 161	University Physics II	4
PHY 161L	University Physics II Laboratory	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		36

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CHM 210*	General Chemistry for Engineers	3
EEE 201	Electrical Network Theory I	3
EEE 201L	Electrical Network Theory I Laboratory	1
EEE 202	Electrical Network Theory II	3
EEE 202L	Electrical Network Theory II Laboratory	1
EEE 211	Materials Science and Engineering	3
EEE 231	Digital Logic Design	3
EEE 231L	Digital Logic Design Lab	1
MTH 252	Calculus III	4
MTH 372	Differential Equations	3
SCM 285	Principles of Speech	3
HED 100	Personal and Community Health	2
XXX XXX	Social Sciences from the Core	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		33

THIRD YEAR

COURSE	COURSE TITLE	HOURS
EEE 301	Engineering Electronics I	3
EEE 301L	Engineering Electronics I Laboratory	1
EEE 305	Signals and Systems	3
EEE 311	Engineering Economics	3
MTH 300	Linear Algebra	3
XXX XXX	Engineering Restricted Elective	3
EEE 321	Electromagnetic Field Theory	3
EEE 333	Digital Integrated Circuits	3
EEE 371	Control Systems	3
MTH 351-E*	Probability and Statistics I – Engineering Section	3
XXX XXX	Humanities from Core Tier 2	3
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
EEE 401	Electronics Engineering Seminar	1
EEE 451	Communications Engineering Seminar	3
EEE 498	Senior Project I	3
EEE 499	Senior Project II	3
XXX XXX	Humanities (Core Tier 3 Cultural Perspectives Elective)	3
XXX XXX	Engineering Restricted Elective	3
XXX XXX	Engineering Restricted Elective	3
XXX XXX	Social Sciences (Core Tier 3 Cultural Perspectives Elective)	3
XXX XXX	Engineering Restricted Elective	3
XXX XXX	Unrestrictive Elective	3
TOTAL HOURS REQUIRED		28

SUMMARY OF GRADUATION REQUIREMENTS

* Substitutes for General Education Core Requirements

The Technical Elective may be chosen from 300 or above level courses in math, computer science, chemistry, physics or engineering.

SUBJECT AREA	HOURS
General Education Core	40
Major Engineering Requirements	54
Mathematics and Science	34
TOTAL DEGREE HOURS REQUIRED	128

B.S. in Optical Engineering

CURRICULUM

The Optical Engineering program was established in fall 2003 for the purpose of addressing diversity and high-tech workforce needs in Hampton Roads, the Commonwealth of Virginia, and the United States. The curriculum offers emphasis in optical materials, photonics, optoelectronics, and optical communications.

FIRST YEAR

COURSE	COURSE TITLE	HOURS
EEE 100	Introduction to Engineering	3
EEE 102*	Engineering Use of Computers	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	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 I Laboratory	1
PHY 161	University Physics II	4
PHY 161L	University Physics II Laboratory	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		34

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CHM 210*	General Chemistry for Engineers	3
EEE 201	Electrical Network Theory I	3
EEE 201L	Electrical Network Theory I Lab	1
EEE 203	Electronic Principles	3
EEE 211	Materials Science and Engineering	3
MTH 252	Calculus III	4
MTH 372	Differential Equations	3
OEN 200	Geometric and Instrumentation Optics	3
OEN 200L	Geometric and Instrumentation Optics Laboratory	1
OEN 201	Physical and Instrumentation Optics	3
OEN 201L	Physical and Instrumentation Optics Laboratory	1
SCM 285	Principles of Speech	3
HED 100	Personal and Community Health	2
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		33

* Substitutes for General Education Core Requirements

THIRD YEAR

COURSE	COURSE TITLE	HOURS
EEE 321	Electromagnetic Field Theory	3
MTH 300	Linear Algebra	3
MTH 351E	Probability and Statistics I	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 Optics	3
XXX XXX	Cultural Elective	3
XXX XXX	Humanities from the Core	3
XXX XXX	Social Sciences from the Core	3
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
EEE 411	Engineering Economics	3
OEN 460	Optical Communications I	3
OEN 460L	Optical Communications I Laboratory	1
OEN 461	Optical Communications II	3
OEN 461L	Optical Communications II Laboratory	1
OEN 490	Senior Seminar	1
OEN 498	Senior Project I	3
OEN 499	Senior Project II	3
XXX XXX	Engineering Elective	3
XXX XXX	Social Sciences from the Core	3
XXX XXX	Technical Elective	3
XXX XXX	Unrestrictive Elective	3
TOTAL HOURS REQUIRED		30

The Technical Elective may be chosen from the 300 level or above courses in math, computer science, chemistry, physics or engineering.

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Engineering Requirements	54
Mathematics and Science	34
TOTAL DEGREE HOURS REQUIRED	128

Five-Year Dual Degree: B.S. and M.S. in Optical Engineering

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
EEE 100	Introduction to Engineering	3
EEE 102*	Engineering Use of Computers	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	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 I Laboratory	1
PHY 161	University Physics II	4
PHY 161L	University Physics II Laboratory	1
IUL 101	Introduction to University Life	3
	TOTAL HOURS REQUIRED	34

SECOND YEAR

COURSE	COURSE TITLE	HOURS
HED 100	Personal and Community Health	2
EEE 201	Electrical Network Theory I	3
EEE 201L	Electrical Network Theory I Laboratory	1
EEE 203	Electronic Principles	3
EEE 211	Materials Science and Engineering	3
OEN 200	Geometric and Instrumentation Optics	3
OEN 200L	Geometric and Instrumentation Optics Laboratory	1
OEN 201	Physical and Instrumentation Optics	3
OEN 201L	Physical and Instrumentation Optics Laboratory	1
*CHM 210	General Chemistry for Engineers	3
MTH 252	Calculus III	4
MTH 372	Differential Equations	3
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
	TOTAL HOURS REQUIRED	33

SUMMER

COURSE	COURSE TITLE	HOURS
OEN 297	Summer Research	3
	TOTAL HOURS REQUIRED	3

* Substitutes for General Education Core Requirements

** Must earn a grade of B or better

Continue to next page →

THIRD YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	Humanities from the Core	3
XXX XXX	Social Sciences from the Core	3
**EEE 321	Electromagnetic Field Theory	3
**OEN 320	Optical Systems Analysis	3
**OEN 340	Lasers and Photonics	3
**OEN 340L	Lasers and Photonics Laboratory	1
**OEN 360	Introduction to Optical Materials	3
**OEN 380	Introduction to Quantum Optics	3
MTH 300	Linear Algebra	3
MTH 351E	Probability and Statistics I	3
XXX XXX	Cultural Elective	3
	TOTAL HOURS REQUIRED	31

SUMMER

COURSE	COURSE TITLE	HOURS
OEN 397	Summer Research	3
	TOTAL HOURS REQUIRED	3

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	Social Sciences from the Core	3
EEN 411	Engineering Economics	3
**OEN 460	Optical Communications I	3
**OEN 460L	Optical Communications I Laboratory	1
**OEN 461	Optical Communications II	3
**OEN 461L	Optical Communications II Laboratory	1
OEN 490	Senior Seminar	1
OEN 498	Senior Project I	3
OEN 499	Senior Project II	3
XXX XXX	Engineering Elective	3
XXX XXX	Technical Elective	3
XXX XXX	Unrestrictive Elective	3
	TOTAL HOURS REQUIRED	30

FIFTH YEAR

COURSE	COURSE TITLE	HOURS
MSE 535	Electronic and Photonic Materials Engineering	3
MSE 575	Basic Instrumentation for Materials Science	3
OEN 630	Opto-Electronic Devices	3
OEN 690	Applied Optics Research Seminar	3
OEN 699	Master's Thesis	6
PHY 653	Solid State Physics	3
XXX XXX	Graduate Electives	6
	TOTAL HOURS REQUIRED	27

Minor in Bio-Medical Engineering

Biomedical engineering is an emerging field that uses engineering concepts to develop solutions in biology and the medical field. It involves the application of engineering and technology to living systems. This minor is beneficial not only for engineering students, but also for other students in the College of Science, Engineering, and Technology.

REQUIRED COURSES

COURSE	COURSE TITLE	HOURS
BIO 110	General Biology	3
CHM 321	Organic Chemistry I	3
CHM 322	Organic Chemistry II	3
BIO 469	Biochemistry I	3
EEE 211	Materials Science and Engineering	3
EEE 350	Scientific Instrumentation or EEN 481 Biomedical Engineering	3
TOTAL HOURS REQUIRED		18

TOTAL DEGREE HOURS REQUIRED	18
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NOTE:

Students must fulfill the pre-requisites requirements prior to enrolling in the courses for the minor.

- BIO 110: General Biology (Pre-requisites required: none; Co-requisite: BIO 110L or consent of chair)
- CHM 321: Organic Chemistry I (Pre-requisites required: CHM 222 or CHM 224)
- CHM 322: Organic Chemistry II (Pre-requisite required: CHM 321)
- BIO 469: Biochemistry I (Pre-requisite required: CHM 322) -or- CHM 431: Biochemistry I (Pre-requisites required: CHM 322, 362)
- EEE 211: Materials Science and Engineering (Pre-requisite required: CHM 210 or CHM 221)
- EEE 350: Scientific Instrumentation (Pre-requisites required: EEN 102 or CSC 170; EEN 201 or equivalent)
- EEE 481: Biomedical Engineering Microdevices and Systems (Prerequisite or Corequisite: University Physics I (PHY 160) and General Chemistry (CHM 210 or 221))

DEPARTMENT OF MATHEMATICS

Dr. Shahrooz Moosavizadeh, Department Head
(757) 823-8970

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, the natural sciences, business and economics, and the vocational areas.
3. To prepare students for various career opportunities such 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 Mathematics Resource Center (BMH C-227) for students enrolled in entry level mathematics courses.

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 IUL 101, 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.

B.S. in Applied Mathematics

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100	Biological Science	3
BIO 100L	Biological Science Lab	1
CSC 169	Introduction to Computer Science	3
CSC 170	Computer Programming	3
CSC 170L	Computer Programming Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
IUL 101	Introduction to University Life	3
MTH 184	Calculus I	4
MTH 251	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
	TOTAL HOURS REQUIRED	31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	Computer Programming Electives (200 level)	6
PHY 152	General Physics I	3
PHY 152L	General Physics I Lab	1
MTH 252	Calculus III	4
MTH 300	Linear Algebra	3
MTH 372	Differential Equations	3
MTH 373	Advanced Vector Calculus	3
PHY 153	General Physics II	3
PHY 153L	General Physics II Lab	1
	***Cultural Perspectives (Humanities)	3
	TOTAL HOURS REQUIRED	30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
	*Applied Electives	3
XXX XXX	Science Electives (200 level or above)	3
XXX XXX	General Electives	2
MTH 331	Algebraic Structures	3
MTH 351	Probability and Statistics I	3
MTH 352	Probability and Statistics II	3
	***Cultural Perspectives (Social Science)	3
SCM 285	Principles of Speech	3
	****Social Sciences Elective	3
	**Humanities	3
ENG 299	Exit Writing Exam	0
	TOTAL HOURS REQUIRED	29

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
	*Applied Electives	12
XXX XXX	General Electives	5
MTH 401	Numerical Analysis I	3
MTH 473	Introduction to Real Analysis	3
MTH 496	Mathematics Seminar	2
MTH 497	Mathematics Seminar	2
ENG 203	Advanced Communication Skills or	
ENG 303	Professional or Technical Writing	3
	TOTAL HOURS REQUIRED	30

SUMMARY OF GRADUATION REQUIREMENTS

*Applied Electives:

Note: students will take 15 hours of applied electives as indicated:

Third year: MTH 355, MTH 382, MTH 384, PHY 3xx (6 hours)

Fourth year: MTH 402, MTH 474, MTH 484, MTH 492, PHY 3xx, PHY 4xx, EEN 3xx (9 hours)

**Humanities

Note: Students will take 3 hours of humanities as indicated: ENG 207, FIA 201, MUS 301

***Cultural Perspectives (Humanities)

Note: Students will take 3 hours of Cultural Perspectives (Humanities) as indicated: ENG 383, MUS 234

****Cultural Perspectives (Social Science)

Note: Students will take 3 hours of Cultural Perspectives (Humanities) as indicated: HIS 335, HIS 336, HIS 371, HRP 320

*****Social Sciences

Note: Students will take 3 hours of Social sciences as indicated: SOC 101, HIS 101, HIS 103, BUS 175, ECN 200

*****Social Sciences

Note: Students will take 3 hours of Social Sciences as indicated: SOC 101, HIS 101, HIS 103, BUS 175, ECN 200

SUBJECT AREA

HOURS

General Education Core	42
Major Requirements	56
Restricted Electives	15
General Electives	7

TOTAL FOR BACHELOR OF SCIENCE 120 CR HRS

*****Social Sciences

Note: Students will take 3 hours of Social Sciences as indicated: SOC 101, HIS 101, HIS 103, BUS 175, ECN 200

Teacher Certification in Mathematics

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 100/ BIO 100L	Biological Science + Lab	4
CSC 170	Computer Programming I	3
CSC 170L	Computer Programming I Lab	1
ENG 101/102	Communication Skills I	6
HED 100	Personal and Community Health	2
MTH 184	Calculus I	4
MTH 251	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
PHY 152/ PHY 152L	General Physics I + Lab	4
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ENG 203	Advanced Communication Skills or	3
ENG 303	Professional and Tech Writing	3
SCM 285	Principles of Speech	3
	***Cultural Perspectives (Social Science)	3
	**Humanities	3
MTH 242	History of Mathematics	3
MTH 252	Calculus III	4
MTH 300	Linear Algebra	3
MTH 372	Differential Equations	3
EDU 201	Foundations of Education	3
	*****Social Sciences	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		34

THIRD YEAR

COURSE	COURSE TITLE	HOURS
	***Cultural Perspectives (Humanities)	3
MTH 250	Elementary Statistics Concepts	3
MTH 310	Discrete Mathematics	3
MTH 311	Modern Geometry	3
MTH 351	Probability & Statistics I	3
MTH 352	Probability & Statistics II	3
MTH 331	Algebraic Structures	3
EDU 381	Classroom & Behavior Management	3
SED 384	Curriculum & Instruc. Proced. In Math	3
SED 405	Reading in the Content Areas	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
	*Mathematics Elective	3
MTH 496/497	Mathematics Seminar	4
SED 420	Educational Technology	3
PSY 228/EDU 486	Human Growth & Development	3
SED 499	Directed Teaching	12
	General Elective	2
TOTAL HOURS REQUIRED		27

*Mathematics Electives

MTH 401 Numerical Analysis I, MTH 431 Abstract Algebra
MTH 473 Real Analysis

** Humanities

Note: Students will take 3 hours of humanities as indicated: ENG 207, FIA 201, MUS 301

*** Cultural Perspectives (Humanities)

Note: Students will take 3 hours of Cultural Perspectives (Humanities) as indicated: ENG 383, MUS 234

****Cultural Perspectives (Social Science)

Note: Students will take 3 hours of Cultural Perspectives (Social Science) as indicated: HIS 335, HIS 336, HIS 371, HRP 320

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Requirements	42
Major Requirements	43
Professional Educational Requirements	21
Student Teaching/Field Experiences	12
Restricted & General Electives	5
TOTAL FOR BACHELOR OF SCIENCE	123

Teacher Licensure Endorsement in Mathematics

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.
5. Take the PRAXIS test and make a passing score. (See the School of Education PRAXIS coordinator)
6. Take the following professional education courses (18 semester hours) plus student teaching (12 semester hours).

COURSE	COURSE TITLE
EDU 201	Foundations of Education
EDU 381	Classroom and Behavior Management
PSY 228 / EDU 486	Human Growth and Development
SED 384	Curriculum and Instructional Procedures in Math
SED 405	Reading in Content Area
SED 420	Educational Technology

Dual Degree in Mathematics

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

1. **Complete Primary Degree Requirements**
(Minimum of 120 Semester Hours)
2. **Complete Dual Mathematics Requirements**
(30 Semester Hours)

COURSE	COURSE TITLE	HOURS
MTH 184	Calculus I	4
MTH 251	Calculus II	4
MTH 252	Calculus III	4
MTH 300	Linear Algebra	3
MTH 351	Probability and Statistics I	3
MTH 372	Differential Equations	3
MTH 373	Advanced Vector Calculus (or MTH 310 Discrete Mathematics)	3

MATHEMATICS ELECTIVES

COURSE	COURSE TITLE	HOURS
MTH 310 or 331 or 352 or 382 or 384		3
MTH 401 or 431 or 451 or 473 or 484		3

3. **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.

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	5
Other Requirements	21
Dual Mathematics Requirements	30
TOTAL DUAL DEGREE HOURS REQUIRED	150

Minor in Mathematics

CURRICULUM

CORE

COURSE	COURSE TITLE	HOURS
MTH 252	Calculus III	4
MTH 351	Probability and Statistics I	3
MTH 372	Differential Equations	3
TOTAL HOURS REQUIRED		10

ELECTIVES

(Choose any 2 courses from MTH 3XX or MTH 4XX.)

COURSE	COURSE TITLE	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 401	Numerical Analysis I	3
TOTAL HOURS REQUIRED		6

TOTAL DEGREE HOURS REQUIRED	16
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DEPARTMENT OF NURSING AND ALLIED HEALTH

Dr. Jessica Parrott, Department Head
(757) 823-9013

NURSING

Nursing offers the Traditional and Bachelor of Science Degree Programs in Nursing, which are fully accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road, NE, Suite 850 Atlanta, GA 30326 (404) 975-5000; Fax: (404) 975-5020 and approved by the Virginia Board of Nursing, Perimeter Center, 9960 Maryland Drive, Suite 300, Henrico, VA 23233-1463 (804) 367-4515. The traditional track can be completed in two academic years and a summer session. Qualified LPNs can complete the nursing courses within three 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.

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 Letter of Request for Readmission should be addressed to the Admissions Coordinator. The Admissions, Promotion, and Retention Committee makes recommendations for readmission. The final decision to grant readmission

to the nursing program, however, rests with the Department Chairperson.

ALLIED HEALTH

Allied Health offers majors, concentrations or certificates in the disciplines of Food Science and Nutrition, Health Services Management, and Medical Technology.

The Bachelor of Science degree is offered in Health Services Management, and Medical Technology. A Certificate of Completion is awarded in Health Services Management.

POLICIES

Specific policies related to Food Science and Nutrition, Health Services Management, and Medical Technology are delineated in the student handbook provided to students in each major.

The professional phase courses of the Medical Technology Program, courses with MDT prefix, can only be taken by students who have been admitted into the program or by special permission of the Medical Technology Program Director. Exceptions to this policy are MDT 306 Phlebotomy and MDT 308 Urinalysis.

OBJECTIVES

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 or mid-level positions in certain areas in the health-care industry.

Traditional Baccalaureate Degree Program in Nursing

Admission Criteria

Applications for the Traditional are open to all qualified students and highly competitive. **Admission is not guaranteed.**

The general admission criteria are:

1. Admission to the University on or before February 1st prior to the fall semester of desired entry into the nursing program or by April 1st for current year high school graduates.
2. Submission of a separate application for admission to the Department of Nursing and Allied Health on or before February 1st for August admission.
3. Receipt of official transcript(s) from previously attended college(s) and high school.
4. Completion of one algebra course, one general mathematics course, one biology course with a lab, and one chemistry course with a lab. A minimum grade of "C" is required in each course or credit by examination (CLEP or ACT).
5. A cumulative grade point average of 2.8, and a "C" or above in the listed below prerequisites courses or credit by examination (CLEP or ACT), **all of which must be completed before the start of the Traditional Nursing Program.**
6. Student seeking admission to the Traditional Nursing program are required to complete the National League of Nursing (NLN) RN Preadmission Exam. You may register for the exam at www.nlnonlinetesting.org, or call 800-732-8656. The acceptable score on the preadmission exam must be at or above the 50th percentile overall **and** at or above the 45th percentile in Math and Verbal.

PREREQUISITE COURSES		
TIER 1 GENERAL EDUCATION REQUIREMENTS		
COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
ENG 101/ENG 101H	Communication Skills I	3
ENG 102/ENG 102H	Communication Skills II	3
SCM 285/285H	Principles of Speech	3
ENG 299	Examination of Writing Competency	0
MTH 102* or MTH 105*	Algebra (*Will accept High School)	
TIER 2 GENERAL EDUCATION REQUIREMENTS		
ENG 207; FIA 201; or MUS 301	Humanities	3
CHM 215, CHM 215L	Natural Sciences	4
BIO 100, BIO 100L*	Natural Sciences (*Will accept High School)	
BUS 174; ECN 200; HIS 101; HIS 103; or SOC 101	Social Sciences	3
CSC 150	Digital, Computer, & Telecommunications	3
TIER 3 GENERAL EDUCATION REQUIREMENTS		
ENG 383 or MUS 234	Cultural Perspectives Humanities	3
HIS 335; HIS 336; HIS 371	Cultural Perspectives Social Sciences	3
HRP 320	Introduction to the Health Professions	3
NURSING PROGRAM REQUIREMENTS		
BIO 165, BIO 165L	Anatomy & Physiology Part I and Lab	4
BIO 166, BIO 166L	Anatomy & Physiology Part II and Lab	4
BIO 163, BIO 163L	Microbiology for the Health Sciences and Lab	4
BIO 320	Pathophysiology	3
FSN 110	The Science of Human Nutrition	3

College of Science, Engineering, and Technology

PSY 228	Developmental Psychology	3
MTH 250	Elementary Statistics Concepts	3
Total Prerequisite Hours Required		55
Total Semester Hours		55

CURRICULUM

FIRST YEAR – FALL SEMESTER

COURSE	COURSE TITLE	HOURS
NUR 300	Foundations of Professional Development	1
NUR 302/418	Theories and Conceptual Models for Nursing Practice	3
NUR 304	Nursing Informatics	2
NUR 322/415	Health Assessment	4
NUR 324	Competencies for Nursing Practice I	2
NUR 326	Nursing Pharmacology I	2
Total Hours Required		14

FIRST YEAR – SPRING SEMESTER

COURSE	COURSE TITLE	HOURS
NUR 301	Nursing Politics, Policies and Practice	2
NUR 332	Genetics and Genomics	2
NUR 342	Fundamentals of Nursing	2
NUR 342L	Fundamentals of Nursing Laboratory	2
NUR 344	Competencies for Nursing Practice II	2
NUR 346	Nursing Pharmacology II	2
Total Hours Required		12

FIRST YEAR – SUMMER SESSION

COURSE	COURSE TITLE	HOURS
NUR 360	Nursing Care of Adults I	3
NUR 360L	Nursing Care of Adults I Laboratory	2
NUR 461*	Nursing Research Dimensions*	3
Total Hours Required		8

College of Science, Engineering, and Technology

SECOND YEAR – FALL SEMESTER

COURSE	COURSE TITLE	HOURS
NUR 440	Nursing Care of Adults II	3
NUR 440L	Nursing Care of Adults II Laboratory	3
NUR 442	Psychiatric/Mental Health Nursing	2
NUR 442L	Psychiatric/Mental Health Nursing Laboratory	2
NUR 446	Nursing of Women and the Childbearing Family	2
NUR 446L	Nursing of Women and the Childbearing Family Lab	2
NUR 485*	Contemporary Issues in Nursing & Health Care*	3
Total Hours Required		17

SECOND YEAR- SPRING SEMESTER

COURSE	COURSE TITLE	HOURS
NUR 450	Nursing of Children, Adolescents & Families	2
NUR 450L	Nursing of Children, Adolescents & Families Laboratory	2
NUR 460	Adult Nursing III/Capstone	2
NUR 460L	Adult Nursing III/Capstone Laboratory	1
NUR 490	Community Health Nursing	2
NUR 490L	Community Health Nursing Laboratory	2
NUR 462*	Nursing Leadership & Management (with Honors)	3
NUR 495	Senior Synthesis	1
Total Hours Required		15
Prerequisite Total Credit Hours		55
Nursing Program Total Credit Hours		66

NOTES ON PROGRAM

- Once admitted to the Traditional Nursing Program, students progressing on-time will complete in 22 months.
- Clinical hours may range from 6 hours to 12 hours per day dependent upon clinical.
- Every effort will be made to have lecture and clinical held during weekdays, however, some evening and/or weekend clinical arrangements may be necessary.

B.S. in Nursing -- RN to BSN

ADMISSION CRITERIA

Admission to the Upper-level Baccalaureate Program in Nursing is competitive and open to all qualified applicants. The minimal admission requirements are:

1. Admission to the University by February 1st for fall admission; August 1st for January admission.
2. Submission of a separate application for admission to the Nursing Program on or before February 1st for fall admission; August 1st for January admission.
3. A cumulative grade point average of 2.5 and "C" in the following courses: Chemistry, Anatomy and Physiology and Microbiology.
4. Completion of pre-requisite courses or credit by examination (CLEP or ACT).
5. Receipt of official transcript(s) from previously attended college(s).
6. Current license to practice as a registered nurse in the Commonwealth of Virginia.
7. Two units of Math, one of which must be algebra: A minimum grade of "C" in both courses.

PREREQUISITE COURSES

SUBJECT AREA	HOURS
Introduction to University Life	3
Computer Concepts	3
Communication Skills	6
Introduction to Psychology	3
Human Growth and Development or Child Psychology	3
Introductory to Sociology	3
Human Anatomy and Physiology I & II	8
Microbiology	4
Lower-level Nursing Courses	37
TOTAL DEGREE HOURS REQUIRED	70

**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.*

CURRICULUM

JUNIOR YEAR

COURSE	COURSE TITLE	HOURS
HUM 210	Humanities or HUM 21, FIA 201 or MUS 401 or REL 110 or LOG 210	3
BIO 320	Pathophysiology	3
MTH 250	Statistics or PSY 270 or SOC or 355	3
SCM 285	Principle of Speech	3
CULTURAL PERSPECTIVE (SOCIAL SCIENCE)	HIS 335/336; HIS 370; JRN 299; SOC 237; POS 315; PSY340; OR HRP 320	3
CULTURAL PERSPECTIVE (HUMANITIES)	ENG 383; FIA 370; OR MUS 234	3
ECN 211 OR POS 230	Principles of Microeconomics or American Public Policy	3
HIS 100	History of World Societies, Part 1 or HIS 101, 102, or HIS 103	3
TOTAL HOURS REQUIRED		24

SENIOR YEAR

COURSE	COURSE TITLE	HOURS
NUR 321	Multiculturalism /Bioethics	3
NUR 415	Health Assessment*	4
NUR 418	Conceptual Models for Nursing	3
XXX XXX	Free Elective (300-400 Level)	3
NUR 461	Nursing Research Dimensions	3
NUR 435	Providing Complex Nursing Systems for Families and Groups	3
NUR 435L	Providing Complex Nursing Systems for Families and Groups Lab	2
NUR 462	Nursing Leadership and Management	3
NUR 470	Nursing Seminar in Professional Development	3
NUR 485	Contemporary Topics in Nursing and Health Care	3
TOTAL HOURS REQUIRED		30

B.S. in Nursing – Second Degree

ADMISSION CRITERIA

Admission to the Second Degree Baccalaureate Degree Program is competitive and open to qualified students. The minimal admission criteria are:

1. Completion of an undergraduate or higher degree;
2. Admission to the University by December 1 for summer session, and August 1 for January session.
3. Submission of a separate application for admission to the Nursing Department on or before December 1 for summer session, and August 1st for January session.
4. A cumulative grade point average of 2.5 and a grade of "C" in the following courses: Chemistry, Anatomy and Physiology, Microbiology and Pathophysiology.
5. Receipt of official transcript(s) from previously attended college(s).
6. Completion of prerequisite courses or credit by examination (CLEP, ACT-PEP).
7. Two units of math, one of which must be algebra. A minimum grade of "C" is required in both courses.
8. Completion of pre-entrance admission exam.

PREREQUISITE COURSES

SUBJECT AREA	HOURS
Communication Skills	9
Introduction to University Life	3
Humanities	3
African-American Perspectives	6
Fundamental Pharmacological Skills	4
Anatomy and Physiology I & II	8
Microbiology	4
Economics or American Public Policy	3
Statistics	3
Computer Concepts	3
History	3
Human Growth and Development or Child Psychology	3
Sociology	3
Pathophysiology	3
Major Requirements	15
TOTAL DEGREE HOURS REQUIRED	73

FULL-TIME DAY CURRICULUM

COURSE	COURSE TITLE	HOURS
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FIRST SEMESTER SUMMER SESSION

NUR 362	Essentials of Nursing	4
NUR 362L	Essentials of Nursing Lab"	2
NUR 415	Health Assessment	4
NUR 418	Conceptual Models for Nursing	3
TOTAL HOURS REQUIRED		13

SECOND SEMESTER FALL SEMESTER

COURSE	COURSE TITLE	HOURS
NUR 321	Multiculturalism/Bioethics	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
TOTAL HOURS REQUIRED		16

THIRD SEMESTER SPRING SEMESTER

COURSE	COURSE TITLE	HOURS
NUR 429	Providing Nursing Systems for Individuals and Large Groups	3
NUR 429L	Providing Nursing Systems for Individuals and Large Groups Lab*	5
NUR 461	Nursing Research Dimensions	3
NUR 462	Nursing Leadership and Management	3
NUR 485	Contemporary Issues in Nursing and Health Care	3
TOTAL HOURS REQUIRED		17

FOURTH SEMESTER SUMMER SESSION

COURSE	COURSE TITLE	HOURS
NUR 470	Seminar on Professional Development	3
NUR 475	Nursing Process Seminar*	3
TOTAL HOURS REQUIRED		6

Continue to next page →

B.S. in Nursing – Second Degree

EVENINGS AND WEEKENDS CURRICULUM

FIRST SEMESTER SPRING SESSION I

COURSE	COURSE TITLE	HOURS
NUR 362	Nursing Essentials*	4
NUR 362L	Nursing Essentials Lab	2
NUR 415	Health Assessment	4
NUR 418	Conceptual Models for Nursing	3
TOTAL HOURS REQUIRED		13

SECOND SEMESTER SUMMER SESSION

COURSE	COURSE TITLE	HOURS
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/Bioethics	3
TOTAL HOURS REQUIRED		7

THIRD FIRST SEMESTER FALL SESSION

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 461	Nursing Research Dimensions	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		12

FOURTH SEMESTER SPRING II SESSION

COURSE	COURSE TITLE	HOURS
NUR 429A	Providing Nursing Systems for Individuals and Large Groups*	2
NUR 429C	Providing Nursing Systems for Individuals and Large Groups Lab*	3
NUR 462	Nursing Leadership Management	3
NUR 485	Contemporary Issues in Nursing and Health Care	3
TOTAL HOURS REQUIRED		11

FIFTH SEMESTER SUMMER SESSION I

COURSE	COURSE TITLE	HOURS
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
TOTAL HOURS REQUIRED		6

SIXTH SEMESTER SUMMER SESSION II

COURSE	COURSE TITLE	HOURS
NUR 475	Nursing Process Seminar*	3
TOTAL HOURS REQUIRED		3

B.S. in Nursing – LPN to BSN

ADMISSION CRITERIA

Admission into the LPN-BSN track is competitive and open to qualified students. The minimal admission criteria are:

1. Completion of prerequisite courses or credit by examination (CLEP, ACT) and/or advance placement credits;
2. Admission to the University by December 1st for summer session and August 1st for January session;
3. Submission of a separate application for admission to the Nursing Department on or before December 1st for Summer Session and August 1st for January session;
4. A cumulative grade point average of 2.5, and a minimum grade of "C" in the following courses: Chemistry, Anatomy and Physiology, Microbiology, and Pathophysiology;
5. Receipt of official transcript(s) from previously attended college(s) and practical nursing program;
6. Current license to practice as a licensed practical nurse in the Commonwealth of Virginia;
7. Two units of math, one of which must be algebra. A minimum grade of "C" is required in both courses.
8. Completion of pre-entrance admission exam.

PREREQUISITE COURSES

SUBJECT AREA	HOURS
Communication Skills	9
Humanities	3
Computer Concepts	6
African-American Perspectives	3
Introduction to University Life	3
Pathophysiology	3
Anatomy and Physiology I & II	8
Microbiology	4
Introduction to Psychology	3
Developmental Psychology or Child Psychology	3
Introduction to Sociology	3
History	3
American Public Policy or Economics	3
Statistics	3
Advance Placement	15
TOTAL DEGREE HOURS REQUIRED	72

FULL-TIME DAY CURRICULUM

FIRST SEMESTER SUMMER SESSION

COURSE	COURSE TITLE	HOURS
NUR 418	Conceptual Models for Nursing	3
NUR 415	Health Assessment	4
NUR 362L	Essentials of Nursing Laboratory*	2
NUR 362	Essentials of Nursing Skills and Related Concepts*	4
TOTAL HOURS REQUIRED		13

SECOND SEMESTER FALL SESSION

COURSE	COURSE TITLE	HOURS
NUR 321	Multiculturalism/Bioethics	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
TOTAL HOURS REQUIRED		16

THIRD SEMESTER SPRING SESSION

COURSE	COURSE TITLE	HOURS
NUR 429	Providing Nursing Systems for Individuals and Large Groups*	3
NUR 429L	Providing Nursing Systems for Individuals and Large Groups Lab*	5
NUR 485	Contemporary Issues in Nursing and Health Care	3
NUR 461	Nursing Research Dimensions	3
NUR 462	Nursing Leadership and Management	3
TOTAL HOURS REQUIRED		17

FOURTH SEMESTER SUMMER SESSION

COURSE	COURSE TITLE	HOURS
NUR 475	Nursing Process Seminar*	3
NUR 470	Nursing Seminar in Professional Development	3
TOTAL HOURS REQUIRED		6

Continue to next page →

B.S. in Nursing – LPN to BSN

EVENING/WEEKEND CURRICULUM

FIRST SEMESTER SPRING SESSION I

COURSE	COURSE TITLE	HOURS
NUR 418	Conceptual Models for Nursing	3
NUR 415	Health Assessment	4
NUR 362	Nursing Essentials*	4
NUR 362L	Nursing Essentials Lab*	2
TOTAL HOURS REQUIRED		13

SECOND SEMESTER SUMMER SESSION

COURSE	COURSE TITLE	HOURS
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/Bioethics	3
TOTAL HOURS REQUIRED		7

THIRD SEMESTER FALL SESSION

COURSE	COURSE TITLE	HOURS
NUR 419B	Providing Nursing Systems for Individuals and Small Groups	3
NUR 419D	Providing Nursing Systems for Individuals and Small Groups Lab*	2
NUR 444	Planning Nursing Systems for Adults*	3
NUR 461	Nursing Research Dimensions	4
TOTAL HOURS REQUIRED		12

FOURTH SEMESTER SPRING SESSION II

COURSE	COURSE TITLE	HOURS
NUR 429A	Providing Nursing Systems for Individuals and Large Groups*	2
NUR 429C	Providing Nursing Systems for Individuals and Large Groups Lab*	3
NUR 485	Contemporary Issues in Nursing and Health Care	3
NUR 462	Nursing Leadership Management	3
TOTAL HOURS REQUIRED		11

FIFTH SEMESTER SUMMER SESSION I

COURSE	COURSE TITLE	HOURS
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	Nursing Seminar in Professional Development	3
TOTAL HOURS REQUIRED		6

SIXTH SEMESTER SUMMER SESSION II

COURSE	COURSE TITLE	HOURS
NUR 475	Nursing Process Seminar	3
TOTAL HOURS REQUIRED		3

* Courses are to be taken only in the Second Degree and LPN to BSN programs.

B.S. in Health Services Management

Mrs. Bernice Sawyer-Watson, Program Director
(757) 823-2367

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HRP 120	Medical Terminology	3
HED 100	Personal and Community Health	2
PED 100	Fundamentals of Fitness for Life	1
CSC 150	Computer Concepts and Applications	3
MTH 151	College Algebra or MTH 131, MTH 132, MTH 153	3
XXX XXX	Natural Sciences BIO 100 or BIO 110 or SCI 101	6
TOTAL HOURS REQUIRED		34

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ECN 211	Principles of Microeconomics	3
ECN 212	Principles of Macroeconomics	3
ENG 203	Advanced Communication Skills	3
SCM 285	Principles of Speech	3
HSM 300	Health Services Management	3
HSM 300L	Health Services Management Lab	1
HSM 310	Health Personnel Management	3
PSY 210	Introduction to Psychology	3
MTH 250	Elementary Statistics Concepts or PSY 270, SOC 355, POS 345, DSC 270	3
XXX XXX	Social Sciences BUS 175, ECO 200, HIS 100, HIS 103, SOC 101	3
XXX XXX	Cultural Humanities*	3
XXX XXX	Cultural Social Sciences**	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		34

* ENG383, MUS 234

**HIS 335, HIS 336, HIS 371, HRP 320

THIRD YEAR

COURSE	COURSE TITLE	HOURS
FNC 360	Corporate Finance	3
HRP 310	Current Trends in Health Care Delivery	3
HSM 311	Legal Aspects and Ethics of Health Care Delivery	3
HSM 331	Health Financial Management	4
MGT 365	Organizational Behavior and Theory	3
XXX XXX	HSM Restrictive Elective at 300 level from ENT, MKG, MGT, FNC, SWK, DSC, ACC, BUS	3
XXX XXX	HSM Restrictive Electives at 300 or 400 level from ENT, MKG, MGT, FNC, SWK, DSC, ACC, BUS	6
XXX XXX	Humanities ENG 207 or MUS 301 or FIA 201	3
TOTAL HOURS REQUIRED		28

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
HSM 451	Comprehensive Health Planning	3
HSM 454	Long Term Care Administration	3
HSM 494	Health Services Management Internship	6
HSM 497	Health Services Management Problems and Research	3
XXX XXX	HSM Restrictive Elective at 400 level from MGT, POS	3
XXX XXX	Free Electives	6
TOTAL HOURS REQUIRED		24

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	62
Electives	6
Other Requirements	12
TOTAL DEGREE HOURS REQUIRED	120

B.S. IN HEALTH SERVICES MANAGEMENT -- ONLINE

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
ACC 201	Principles of Financial Accounting	3
ACC 202	Principles of Managerial Accounting	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HRP 120	Medical Terminology	3
HED 100	Personal and Community Health	2
PED 100	Fundamentals for Fitness for Life	1
CSC 150	Computer Concepts and Applications	3
MTH 151	College Algebra or MTH 131, MTH 132, MTH 153	3
XXX XXX	Natural Sciences BIO 100/100L, SCI 101	7
TOTAL HOURS REQUIRED		34

THIRD YEAR

COURSE	COURSE TITLE	HOURS
FNC 360	Corporate Finance	3
HRP 310	Current Trends in Health Care Delivery	3
HSM 311	Legal Aspects and Ethics of Health Care Delivery	3
HSM 331	Health Financial Management	4
MGT 365	Organizational Behavior and Theory	3
XXX XXX	HSM Restrictive Elective at 300 level from ENT, MKG, MGT, FNC, SWK, DSC, ACC, BUS	3
XXX XXX	HSM Restrictive Electives at 300 or 400 level from ENT, MKG, MGT, FNC, SWK, DSC, ACC, BUS	6
XXX XXX	Humanities ENG 207 or MUS 301 or FIA 201	3
TOTAL HOURS REQUIRED		28

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ECN 211	Principles of Microeconomics	3
ECN 212	Principles of Macroeconomics	3
ENG 203	Advanced Communication Skills	3
SCM 285	Principles of Speech	3
HSM 300	Health Services Management	3
HSM 300L	Health Services Management Lab	1
HSM 310	Health Personnel Management	3
PSY 210	Introduction to Psychology	3
MTH 250	Elementary Statistics Concepts or PSY 270, SOC 355, POS 345, DSC 270	3
XXX XXX	Cultural Humanities*	3
XXX XXX	Cultural Social Sciences**	3
ENG 299	Examination of Writing Competency	0
TOTAL HOURS REQUIRED		34

* ENG 383 MUS 234.

**HIS 335, HIS 336, HIS 371, HRP 320.

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
HSM 451	Comprehensive Health Planning	3
HSM 454	Long Term Care Administration	3
HSM 494	Health Services Management Internship	6
HSM 497	Health Services Management Problems and Research	3
XXX XXX	HSM Restrictive Elective at 400 level from MGT, POS	3
XXX XXX	Free Electives	6
TOTAL HOURS REQUIRED		24

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	62
Electives	6
Other Requirements	12
TOTAL DEGREE HOURS REQUIRED	120

B.S. in Medical Technology

Mrs. Pamela Lonergan, MS, MT (ASCP)SC, Program Director
(757) 823-9459

The Medical Technology Program is designed to prepare students to meet competencies required to become medical technologist/medical 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.

The Medical Technology Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Road, Suite 720, Rosemont, Illinois 60018-5119, (847) 939-3597.

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 admission to the professional phase of the curriculum through the Medical Technology Admissions Committee.

The admission requirements are:

1. Submitting an application packet no later than April 15th of the spring semester for entry into the program for the fall semester. (August 15th for transfer students)
2. Completing all prerequisite courses by the end of semester preceding the professional phase of the curriculum.
3. Achieving a minimum cumulative grade point average of 2.5.
4. The Admission packet consists of:
 - a. Application to the program
 - b. Letter of desire for entering the program
 - c. A letter of recommendation from a person familiar with the student's academic abilities.

ESSENTIAL FUNCTIONS FOR ADMISSION

Upon declaring Medical Technology as a major, the students will be given a copy of the Medical Technology Program's technical standards. The students' signatures are required to indicate that they are able to meet those 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.

B.S. in Medical Technology

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BIO 110 BIO 110L	General Biology and Lab	4
ENG 101	Communication Skills I	3
MTH 151	College Algebra	3
PED 100	Fundamentals of Fitness for Life	1
SOC 101	Social Science*	3
BIO 165/ BIO 165L	Human Anatomy and Physiology and lab	4
CHM 221/221L	General Chemistry /Laboratory	4
ENG 102	Communication Skills II	3
MTH 153	College Algebra and Trigonometry	3
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ENG 299	Writing Competency Exam	0
CHM 222/222L	General Chemistry/Laboratory	4
XXX XXX	Cultural Humanities**	3
XXX XXX	Cultural Social Sciences***	3
MTH 250	Elementary Statistics Concepts	3
BIO 166/ BIO 166L	Human Anatomy & Physiology	4
BIO 310/ 310L	General Microbiology/ Laboratory	4
MDT 308	Urinalysis	2
CSC 150	Computer Concepts & App	3
MUS 301	Humanities****	3
SCM 285	Principles of Speech	3
TOTAL HOURS REQUIRED		32

SUMMER SESSION

COURSE	COURSE TITLE	HOURS
MDT 306	Phlebotomy	2
CHEM 312/312L	Organic Chemistry	4
TOTAL HOURS REQUIRED		6

THIRD YEAR

COURSE	COURSE TITLE	HOURS
MDT 315	Clinical Hematology	4
MDT 325	Clinical Chemistry	4
MTH 373	Clinical Microbiology I	5
MTD 410	Immunology	4
MDT 425	Clinical Chemistry II	4
MDT 450	Clinical Hematology II	4
MDT 455	Immunohematology	4
MDT 473	Clinical Microbiology II	4
TOTAL HOURS REQUIRED		33

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
MDT 395	Hematology/Coagulation Practicum	4
MDT 396	Immunohematology Practicum	4
MDT 495	Clinical Microbiology Practicum	4
MDT 496	Clinical Chemistry Practicum	4
MDT 475	Medical Technology Seminar	1
MDT 480	Clinical Laboratory Administration	2
TOTAL HOURS REQUIRED		19

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	81
TOTAL DEGREE HOURS REQUIRED	121

*OR SELECT FROM HIS 101, HIS 103, BUS 175 OR ECO 200

**SELECT FROM ENG 383 OR MUS 234

***SELECT FROM HRP 320, HIS 335, HIS 336, OR HIS 371

****OR SELECT FROM ENG 207 OR FIA 201

FOOD SCIENCE AND NUTRITION PROGRAM

Food Science and Nutrition Concentration
Ms. Jill E. Comess, MS, RD, Program Director
(757) 823-8216

PROGRAM DESCRIPTION

The Food Science and Nutrition (FSN) Program concentration is housed in the Department of Nursing and Allied Health. The FSN concentration is available for students who seek a Bachelor of Science Degree in Chemistry or a Bachelor of Science Degree in Exercise Science or for students who already have an Undergraduate Degree and are seeking to complete the Food Science and Nutrition Program requirements. Students who plan to become registered dietitians will be eligible to apply for Dietetic Internships upon completion of the program's requirements. The Program Director issues verification statements to each student who completes the program requirements.

ACCREDITATION

The Didactic Program in Dietetics is currently granted accreditation by the Accreditation Council for Education in Nutrition and Education (ACEND)¹ of the Academy of Nutrition and Dietetics (AND), 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-0040, ext. 5400.
(<http://www.eatright.org/ACEND>)

PROGRAM MISSION

The mission of the Food Science and Nutrition Program Concentration is to provide educational opportunities for students to develop mastery of food science and nutrition principles, acquire requisite skills for dietetic practice, foster leadership, enhance graduate school admissions, and become marketable in the workplace. The FSN Program Concentration provides strong foundational knowledge and skills required for students to enter dietetic internships and become registered dietitians. It is the philosophy of the program to provide educational opportunities for all of its students, regardless of socioeconomic status, ethnic background, gender, age, disability, and national origin. Thus, the program's philosophical tenets and mission is in accordance with the department, the college and the university.

CAREER OPTIONS

Dietitians specialize in administrative, clinical, research or community programs. Administrative dietitians organize and manage food service systems in hospitals and other institutions. Clinical dietitians assess nutrition care plans for hospitalized patients, evaluate the results, and consult with physicians on dietary patient care. Also they go into private practice. Research dietitians plan, investigate, interpret, evaluate, apply, and expand the knowledge of nutrition and dietetics. Community dietitians plan, organize, coordinate, and evaluate the nutrition component of health care services for health departments and similar community organizations. Food service managers are specialists in the administration of institutional food plants.

VERIFICATION STATEMENT

Students who have completed the academic requirements for the Didactic Program in Dietetics (DPD) will receive a Verification Statement from the program director. To receive a signed Verification Statement from Norfolk State University, all students must have documentation of the following:

1. Completion of all DPD courses required at NSU, with a grade of C or higher in all science and nutrition courses.
2. Final transcript verifying all grades and degree confirmation.
3. As soon as the final transcript is received, the student will be given seven signed Verification Statements, which is necessary before beginning a dietetic internship.

B.S. in Chemistry – Food Science and Nutrition Program Concentration

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BIO 165/165L	Human Anatomy and Physiology I and Lab	4
CHM 221/221L	General Chemistry I and Lab	4
BIO 166/166L	Human Anatomy and Physiology II and Lab	4
CHM 222/222L	General Chemistry II and Lab	4
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
FSN 101	Introduction to Dietetics and Food Science	2
FSN 102	Professional Experiences Seminar	1
FSN 110	Science of Human Nutrition	3
MTH 153	College Algebra and Trigonometry	3
PED 100	Fundamentals of Fitness for Life	1
TOTAL HOURS REQUIRED		35

SECOND YEAR

COURSE	COURSE TITLE	HOURS
MTH 184	Calculus	4
BIO 310/310L	General Microbiology and Lab	4
CHM 321/321L	Organic Chemistry and Lab	5
CHM 322/322L	Organic Chemistry and Lab	5
CHM 331/331L	Analytical Chemistry I and Lab	5
FSN 160	Food Cost Control	3
XXX XXX	Social Science*	3
CSC 150	Computer Concepts	
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		32

SUMMARY OF GRADUATION REQUIREMENTS

*SOC 101, HIS 101, HIS 103, BUS 175, ECN 200

** ENG 207, FIA 201, MUS 301

***ENG 383, MUS 234,

**** HIS 335, HIS 336, HIS 371, HRP 320

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BIO 469/469L	Biochemistry and Lab	4
CHM 332/332L	Analytical Chemistry II and Lab	5
FSN 320	Food Service Administration	3
FSN 330/FSN 330L	Scientific Food Development and Lab	4
FSN 340	Nutrition Education	3
PHY 152/152L	General Physics and Lab	4
PHY 153/153L	General Physics II and Lab	4
FSN 312	Physiological & Chemical Foundations of Nutrition	3
SCM 285	Principles of Speech	3
XXX XXX	Humanities**	3
TOTAL HOURS REQUIRED		36

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
CHM 361	Physical Chemistry	3
CHM 363L	Physical Chemistry Lab	2
FSN 356	Advanced Nutrition	3
FSN 410	Nutrition and Aging	3
FSN 426/FSN 426L	Nutrition in Disease and Lab	4
FSN 449	Nutrition in Sports and Fitness	3
FSN 450	Professional Seminar	3
FSN 460	Quantity Food Production	3
FSN 484	Rural/ Urban Nutrition	3
XXX XXX	Cultural Humanities***	3
XXX XXX	Cultural Social Services	3
TOTAL HOURS REQUIRED		33

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	96
Electives	0
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	136

B.S. in Exercise Science – Food Science and Nutrition Program Concentration

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
IUL 101	Introduction to University Life	3
BIO 165/165L	Anatomy and Physiology and Lab	4
CSC 150	Computer Concepts & Applications	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
EXS 170	Introduction to Exercise Science	3
FSN 101	Introduction to Dietetics and Food Science	2
BIO 166/166L	Human Anatomy and Physiology and Lab	4
MTH 153	College Algebra and Trigonometry	3
PED 100	Fundamentals for Fitness for Life	1
TOTAL HOURS REQUIRED		32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CHM 221/CHM 221L	General Chemistry I and Lab	4
CHM 222/222L	General Chemistry II and Lab	4
PED 200	Weight Training	2
FSN 102	Professional Development and Experiences Seminar	1
FSN 160	Food Cost Control	3
FSN 312	Physiological & Chemical Foundations of Nutrition	3
FSN 320	Food Service Administration	3
SCM 285	Principles of Speech	3
PHY 152/PHY 152L	General Physics and Lab	4
XXX XXX	Social Sciences*	3
ENG 299	Examination of Writing Competency	0
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

*SOC 101, HIS 101, HIS 103, BUS 175, ECO 200

**ENG 207, FIA 201, MUS 301

***ENG 383, MUS 234

****HIS 335, HIS 336, HIS 371, HRP 320

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BIO 310/BIO 310L	General Microbiology and Lab	4
CHM 312/CHM 312L	Introduction to Organic Chemistry	4
BIO 469/469L	Biochemistry and Lab	4
EXS 355	Anatomical Kinesiology	3
EXS 356	Biomechanics of Human Motion	3
FSN 330/FSN 330L	Scientific Food Development and Lab	4
FSN 340	Nutrition Education	3
FSN 410	Nutrition in Aging	3
XXX XXX	Humanities**	3
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
EXS 447/EXS 447L	Exercise Physiology and Lab	4
EXS 369	Research Methods and Statistics	3
FSN 356	Advanced Nutrition	3
FSN 426/FSN 426L	Nutrition in Disease and Lab	4
FSN 449	Nutrition in Sports and Fitness	3
FSN 450	Professional Seminar	3
FSN 460	Quantity Food Production	3
FSN 484	Rural/ Urban Nutrition	3
XXX XXX	Cultural Humanities***	3
XXX XXX	Cultural Social Sciences****	3
TOTAL HOURS REQUIRED		32

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	85
Electives	0
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	125

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's 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.
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.

- 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 division of Interdisciplinary Studies (Department of History and Interdisciplinary Studies).

DEPARTMENT OF PHYSICS

Dr. 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.

B.S. in Physics

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
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
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	Cultural Elective (Humanities)	3
XXX XXX	Humanities Elective from General Education core	3
XXX XXX	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
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

SUMMARY OF GRADUATION REQUIREMENTS

Cultural Perspectives (6 Credit Hours)
 Humanities : Students must select one (1) course:
 ENG 383 (3 hrs), MUS 234 (3 HRS)

Social Sciences: Students must select one (1) course:
 HIS 335 (3 HRS),HIS 336 (3 HRS)
 HIS 371 (3 HRS),HIS 320 (3 HRS)

THIRD YEAR

COURSE	COURSE TITLE	HOURS
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
XXX XXX	Social Science Elective from the General Core	3
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	Elective (Unrestricted)	10
XXX XXX	Cultural Perspectives (Social Sciences)	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
TOTAL HOURS REQUIRED		28

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	67
Electives	0
Other Requirements	13
TOTAL DEGREE HOURS REQUIRED	120

Teacher Certification in Physics

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
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
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BIO 110	General Biology	3
CSC 170	Computer Programming I	3
EDU 201	Foundations of Education	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 Sciences I	3
PHY 350	Modern Physics	3
PHY 351	Concepts in Modern Physics	1
XXX XXX	Humanities Elective (from the General Education Core)	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CHM 221	General Chemistry I	3
CHM 221L	General Chemistry Lab I	1
CHM 222	General Chemistry II	3
XXX XXX	Social Science Elective from the General Education Core	3
PSY 228	Human Growth and Development	3

College of Science, Engineering, and Technology

PHY 365	Mechanics I	3
PHY 375	Electricity and Magnetism I	3
PHY 380	Quantum Mechanics I	3
SED 405	Reading in the Content Areas	3
SCM 285	Principles of Speech	3
SOC 101	Physical Science	3
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
EDU 381	Classroom and Behavior Management	3
SED 385	Curriculum and Instructional Procedures	3
PHY 468	Optics	3
PHY 498	Senior Project I	1
SED 499	Directed Teaching	12
XXX XXX	Cultural Perspectives (Humanities)	3
XXX XXX	Cultural Perspectives (Social Sciences)	3
TOTAL HOURS REQUIRED		28

SUMMARY OF GRADUATION REQUIREMENTS

Cultural Perspectives (6 Credit Hours)

Humanities: Students must select one (1) course:

ENG 383 (3 hrs), MUS 234 (3 hrs)

Social Sciences: Students must select one (1) course:

HIS 335 (3HRS), HIS 336(3 HRS),HIS 371 (3 HRS)

HIS 320 (3 HRS)

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	53
Electives	12
Other Requirements	15
TOTAL DEGREE HOURS REQUIRED	120

Teacher Licensure Endorsement in Physics

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).

COURSE	COURSE TITLE
EDU 201	Foundations of Education
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

MINOR IN PHYSICS

CURRICULUM

CORE REQUIREMENTS

COURSE	COURSE TITLE	HOURS
PHY 160	University Physics I	4
PHY 160L	University Physics I Lab	1
PHY 161	University Physics II	4
TOTAL HOURS REQUIRED		9

UPPER DIVISION COURSES

PHY 350	Modern Physics	3
TOTAL HOURS REQUIRED		3

CHOOSE ANY TWO (2) OF THE FOLLOWING COURSES:

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
TOTAL HOURS REQUIRED		6

TOTAL DEGREE HOURS REQUIRED	18
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FIVE-YEAR DUAL DEGREE: B.S. PHYSICS AND M.S. MATERIALS SCIENCE

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CSC 169	Introduction to Computer Science	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
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 I Lab	1
PHY 161	University Physics II	4
PHY 161L	University Physics II Lab	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CHM 221	General Chemistry	3
CHM 221L	General Chemistry I Lab	1
CHM 222	General Chemistry II	3
CHM 222L	General Chemistry II Lab	1
EEN 301	Engineering Electronics	3
ENG 203	Advanced Communication Skills	3
XXX XXX	Cultural Perspectives(Humanities)	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	1
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

THIRD YEAR

COURSE	COURSE TITLE	HOURS
PHY 356	Thermodynamics	3
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 Laboratory	2
SCM 285	Principles of Speech	3
XXX XXX	Social Science Elective from the Core	XXX XXX
XXX XXX	Cultural Perspectives (Social Sciences)	3
XXX XXX	Elective (unrestricted)	1
XXX XXX	Restricted Math Elective*	6
TOTAL HOURS REQUIRED		33

SUMMER

COURSE	COURSE TITLE	HOURS
PHY 397	Research (to fulfill elective Requirement)	3
TOTAL HOURS REQUIRED		3

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
CHM 545	Math Methods	3
MATS 530	Materials Science	3
MATS 533	Polymers and Composites	3
XXX XXX	Humanities Elective from the Core	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 Materials Science	3
TOTAL HOURS REQUIRED		30

* Restricted math elective to be selected from the following:
MTH300, 373, 474,PHY 345,PHY 445

SUMMER

COURSE	COURSE TITLE	HOURS
MATS 697	Research	3
TOTAL HOURS REQUIRED		3

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College of Science, Engineering, and Technology

FIFTH YEAR

COURSE	COURSE TITLE	HOURS
CHM 573	Advanced Inorganic Chemistry	3
CHM 663	Atomic and Molecular Spectroscopy	3
CHPH 600	Seminar	3
MATS 575	Instrumentation	3
MATS 710	Special Topics	3
MATS 797	Research	3
MATS 799	Thesis Preparation	3
PHY 653	Solid State Physics	3
PHY 675	Electricity/Magnetism	3
TOTAL HOURS REQUIRED		27

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	70
Electives	10
Other Requirements	40
TOTAL DEGREE HOURS REQUIRED	160

Cultural Perspectives (6 Credit Hours)

Humanities (Select 1 course)

ENG 383 (3 hrs) MUS 234 (3 hrs)

Social Sciences (Select 1 course)

HIS 335 (3HRS), HIS 336(3 HRS)

HIS 371 (3 HRS), HIS 320 (3 HRS)

Minor in Astronomy

The Minor in Astronomy is an ideal complement 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.

CURRICULUM

CORE REQUIREMENTS

COURSE	COURSE TITLE	HOURS
PHY 152	General Physics I	3
PHY 153	General Physics II	3
AST 201	Astronomy	3
TOTAL HOURS REQUIRED		9

CHOOSE ANY THREE FROM THE FOLLOWING COURSES:

COURSE	COURSE TITLE	HOURS
AST 301	Methods of Observational Astronomy	3
AST 302	Astrobiology	3
AST 303	Introduction to Astrophysics	3
AST 401	Stellar Astrophysics	3
TOTAL HOURS REQUIRED		9

TOTAL DEGREE HOURS REQUIRED	18
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DEPARTMENT OF TECHNOLOGY

Dr. Jeenson Sheen, Department Head
(757) 823-8057

The Department offers degrees in the following program areas:

B.S. degree in Building Construction Technology; B.S. degree in Computer Technology; B.S. degree in Electronic Technology; and the A.S. degree in Architectural Drafting Technology. All of the B.S. degree major programs are accredited by the Association of Technology, Management, and Applied Engineering (ATMAE), 1390 Eisenhower Place, Ann Arbor, Michigan, (734) 677-0720.

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 and government. The Department commits to the responsibility of preparing students in quality industrial technology programs. Accordingly, the

department commits, through its academic programs to fostering within students an intrinsic feeling of self-worth that allows them to be the best persons possible, as well as the best technologists.

A.S. in 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. Minimum grade requirement of "C" for all courses required for matriculation.

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BCT 162	Materials of Construction	3
BCT 262	Methods of Building Construction	3
CSC 150	Computer Literacy	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MTH 151	College Algebra	3
MTH 153	College Algebra and Trigonometry	3
PED 100	Fundamentals of Fitness for Life	1
TMD 150	Engineering Graphics	3
TMD 151	Introduction to CAD	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BCT 260	Building Codes and Specifications	3
BCT 263	Fundamentals of Surveying	3
BCT 264	Intermediate Surveying	3
BCT 265	Architectural Details	3
BCT 266	Architectural Drafting	3
IMT 205	Industrial Safety and Management	3
XXX XXX	Elective	3
PHY 152	General Physics I	3
PHY 152L	General Physics I Lab	1
TMD 225	Mechanics I: Statics	3
TMD 251	Advanced CAD	3
XXX XXX	Social Science Elective (HIS XXX, PSY 210, SOC 101)	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		4

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	25
Major Requirements	27
Electives	3
Other Requirements	12
TOTAL DEGREE HOURS REQUIRED	67

B.S. IN BUILDING CONSTRUCTION TECHNOLOGY

The Building Construction Technology program provides a sound background in principles and practices of residential and commercial construction. Courses of instruction include methods and materials of construction, building codes and specifications, architectural and computer-aided drafting, surveying, cost estimates, and computer principles. Students also take courses in statics, strength of materials, and steel structures. Management courses include construction scheduling, organization and supervision of construction, labor and industrial relations, and legal environment of business. Minimum grade requirement of "C" for all courses required for matriculation.

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BCT 162	Materials of Construction	3
CSC 150	Computer Literacy	3
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
HED 100	Personal and Community Health	2
MTH 151	College Algebra	3
MTH 153	College Algebra/Trigonometry	3
PED 100	Fundamentals of Fitness for Life	1
TMD 150	Engineering Graphics	3
TMD 151	Introduction to CAD	3
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
BCT 260	Building Codes and Specifications	3
BCT 262	Methods of Building Construction	3
BCT 263	Fundamentals of Surveying	3
BCT 264	Intermediate Surveying	3
BCT 265	Architectural Details	3
BCT 266	Architectural Drafting	3
IMT 205	Industrial Safety and Management	3
IMT 244	Industrial Specifications and Technical Documentation	3
MTH 184	Calculus I	4
PHY 152	General Physics I	3
PHY 152L	General Physics I Lab	1
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		32

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	42
Electives	6
Other Requirements	33
TOTAL DEGREE HOURS REQUIRED	121

THIRD YEAR

COURSE	COURSE TITLE	HOURS
BCT 363	Methods of Building Construction II	3
BCT 364	Steel Structures	3
BCT 370	Cost Estimates	3
BUS 281	Legal Environment for Business	3
CHM XXX	General Chemistry	3
CHM XXXL	General Chemistry Lab	1
SCM 285	Principles of Speech	3
TMD 225	Mechanics I: Statics	3
TMD 345	Mechanics II: Properties of Materials	3
TMD 345L	Mechanics II: Properties of Materials	1
XXX XXX	Social Science Elective (HIS XXX, PSY 210, SOC XXX, ECN XXX)	3
XXX XXX	Technical Elective (TDM 251, CSC 169, BCT XXX)	3
TOTAL HOURS REQUIRED		32

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
BCT 376	Soil Mechanics	3
BCT 462	Problem Analysis and Planning	3
BCT 464	Organization and Supervision Of Construction	3
BCT 466	Structural Planning and Design	3
IMT 420	Labor and Industrial Relations	3
XXX XXX	Cultural Social Science Elective (HIS 335/336/371, SOC 237, POS 315, or PSY 340)	3
XXX XXX	Humanities Elective (FIA 301, HUM XXX, MUS 301 or foreign language)	3
XXX XXX	Cultural Humanities Elective (ENG 383, FIA 370, MUS 234)	3
XXX XXX	Elective	3
TOTAL HOURS REQUIRED		27

B.S. IN COMPUTER TECHNOLOGY

The Computer Technology program prepares graduates for careers in maintaining, manufacturing, integration, and support of computer systems. Emphasis is placed on job skills required of professionals in the computer industry; including wireless systems, electronic interfacing, networking, digital communications, oral and written communication, and management principles.

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CSC 170/ CSC 170L	Introduction to Programming I and Lab	4
ELT 111/ ELT 111L	Circuit Analysis I and Lab	4
ELT 212/ ELT 212L	Circuit Analysis II and Lab	4
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
IMT 170	Introduction to Technology	1
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
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		32

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ELT 213/ ELT 213L	Electronic Devices I and Lab	4
ELT 220/ ELT 220L	Digital Electronics and Lab	4
IMT 244	Industrial Specifications and Technical Documentation	3
PHY 152/ PHY 152L	General Physics I and Lab	4
CIT 304/ CIT 304L	Digital System Design and Lab	4
ELT 313/ ELT 313L	Electronic Devices II and Lab	4
PHY 153/ PHY 153L	General Physics II and Lab	4
SCM 285	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CIT 305/ CIT 305L	Computer Organization and Lab	4
CIT 315/ CIT 315L	Microprocessors and Lab	4
CIT 336/ CIT 336L	Computer Network Technology I and Lab	4
XXX XXX	Elective	3
XXX XXX	Social Science Elective (HIS XXX, PSY 210, SOC 101, ECN XXX)	3
XXX XXX	Humanities Elective (HUM XXX, FIA 301, MUS 301 or foreign language)	3
IMT 205	Industrial Safety and Management	3
MTH 250	Elementary Statistics Concepts	3
TMD 151	Introduction to CAD	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
CIT 432/ CIT 432L	Computer Interfaces and Lab	4
CIT 436/ CIT 436L	Computer Networks Technology II and Lab	4
CIT 499L	Senior Project Lab	1
ELT 413/ ELT 413L	Digital Communications Systems and Lab	4
XXX XXX	Cultural Humanities Elective (ENG 383, FIA 370, MUS 234)	3
IMT 413	Project Management	3
IMT 445	Statistical Quality Control	3
XXX XXX	Cultural Elective (HIS 335/336/371, SOC 237, POS 315 or PSY 340)	3
XXX XXX	Elective	3
TOTAL HOURS REQUIRED		28

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	49
Electives	6
Other Requirements	25
TOTAL DEGREE HOURS REQUIRED	120

B.S. IN 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.

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
CHM 221	General Chemistry	3
CHM 221L	General Chemistry Lab	1
ELT 111	Circuit Analysis I	3
ELT 111L	Circuit Analysis I Lab	1
ELT 212	Circuit Analysis II	3
ELT 212L	Circuit Analysis II Lab	1
ENG 101	Communication Skills I	3
ENG 102	Communication Skills II	3
IMT 170	Introduction to Technology	1
MTH 153	College Algebra and Trigonometry	3
MTH 184	Calculus I	4
PED 100	Fundamentals of Fitness for Life	1
IUL 101	Introduction to University Life	3
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
CIT 304	Digital Systems Design	3
CIT 304L	Digital Systems Design Lab	1
CSC 170	Introduction to Programming I	3
CSC 170L	Introduction to Programming I Lab	1
ELT 213	Electronic Devices I	3
ELT 213L	Electronic Devices I Lab	1
ELT 220	Digital Electronics	3
ELT 220L	Digital Electronics Lab	1
ELT 313	Electronic Devices II	3
ELT 313L	Electronic Devices II Lab	1
IMT 244	Industrial Specifications and Technical Documentation	3
PHY 152	General Physics I	3
PHY 152L	General Physics I Lab	1
PHY 153	General Physics II	3
PHY 153L	General Physics II Lab	1
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		31

THIRD YEAR

COURSE	COURSE TITLE	HOURS
CIT 315	Microprocessors	3
CIT 315L	Microprocessors Lab	1
EEN 350	Scientific Instrumentation	3
ELT 314	Instrumentation, Measurement and Control	3
ELT 315	Analog Communication Systems	3
ELT 315L	Analog Communication Systems Lab	1
XXX XXX	Social Science Elective (HIS XXX, PSY 210, SOC 101, ECN XXX)	3
IMT 205	Industrial Safety and Management	3
MTH 250	Elementary Statistics	3
SCM 285	Principles of Speech	3
TMD 151	Introduction to CAD	3
XXX XXX	Elective	3
TOTAL HOURS REQUIRED		32

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
ELT 413	Digital Communications Systems	3
ELT 413L	Digital Communications Systems Lab	1
ELT 497L	Senior Project I	1
ELT 498L	Senior Project II	1
HED 100	Personal and Community Health	2
IMT 413	Project Management	3
IMT 445	Statistical Quality Control	3
XXX XXX	Cultural Social Science Elective (HIS 335/336/371, SOC 237, POS 315 or PSY 340)	3
XXX XXX	Elective	4
XXX XXX	Humanities Elective (HUM XXX, FIA 301, MUS 301)	3
XXX XXX	Cultural Humanities Elective (ENG 383, FIA 370, MUS 234)	3
TOTAL HOURS REQUIRED		27

SUBJECT AREA	HOURS
General Education Core	53
Major Requirements	33
Electives	7
Other Requirements	27
TOTAL DEGREE HOURS REQUIRED	120

SPECIAL ACADEMIC PROGRAMS

Dozoretz National Institute for Mathematics and Applied Sciences (DNIMAS)

Dr. Aliecia R. McClain, Director

(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 Electrical and Electronics Engineering, a Bachelor of Science in Mathematics, a Bachelor of Science in Optical Engineering 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
(757) 823-2511

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.

B.S. in Biology (DNIMAS)

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
APS 110	Applied Sciences Seminar	0
APS 111	Applied Sciences Seminar	0
BIO 110H	General Biology I	4
BIO 260	General Zoology	4
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
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
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
APS 210	Applied Science Seminar	0
APS 211	Applied Science Seminar	0
BIO 261	General Botany	4
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 322L	Organic Chemistry II Lab	2
CSC 169	Introduction to Computer Science	3
HED 100	Personal and Community Health	2
SCM 285H	Principles of Speech	3
XXX XXX	Social Science Elective	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		29

THIRD YEAR

COURSE	COURSE TITLE	HOURS
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
BIO 270	Comparative Anatomy or BIO 263	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 160	University Physics	4
PHY 160L	University Physics Lab	1
PHY 161	University Physics	4
PHY 161L	University Physics Lab	1
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
APS 410	Applied Sciences Seminar	0
BIO 351	Principles of Genetics	4
BIO 364	Seminar/Genetics	1
BIO 459	General Physiology	4
BIO 474	Molecular Biology	3
BIO 495	Biostatistics	3
ENG 203/ ENG 303	Advanced Communication Skills	3
XXX XXX	Biology Elective	4
XXX XXX	Humanities Elective/MUS 301*	3
TOTAL HOURS REQUIRED		29

* Select from HUM 210, MUS 301, FIA 301, ENG 207

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	47
Electives	6
Other Requirements	27
TOTAL DEGREE HOURS REQUIRED	120

B.S. in Biology -- Pre-Professional (DNIMAS)

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
APS 110	Applied Sciences Seminar	0
APS 111	Applied Sciences Seminar	0
BIO 110H	General Biology I	4
BIO 111H	General Biology II	4
BIO 260	General Zoology	4
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
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
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
BIO 261	General Botany	4
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 322L	Organic Chemistry II Lab	2
CSC 169	Introduction to Computer Science	3
HED 100	Personal and Community Health	2
SCM 285H	Principles of Speech	3
XXX XXX	Social Science Elective	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		29

SUMMARY OF GRADUATION REQUIREMENTS

THIRD YEAR

COURSE	COURSE TITLE	HOURS
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
BIO 270	Comparative Anatomyor BIO 263	4
BIO 272	Human Anatomy	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 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
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
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	3
CSC 200	Advanced Computer Concepts	3
ENG 203	Advanced Communication Skills or ENG 303	3
XXX XXX	Humanities Elective	3
XXX XXX	Biology Elective	4
TOTAL HOURS REQUIRED		29

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	47
Electives	6
Other Requirements	27
TOTAL DEGREE HOURS REQUIRED	120

B.S. in Chemistry (DNIMAS)

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
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 and Community Health	2
MTH 184H	Calculus I	4
MTH 251H	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
TOTAL HOURS REQUIRED		33

SECOND YEAR

XXX XXX	Humanities or Social Science Elective	3
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 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
SCM 285H	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		33

THIRD YEAR

COURSE	COURSE TITLE	HOURS
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
BIO 110H	General Biology	4
CHM 323L	Synthesis and Analysis in Organic Chemistry Lab	2
CHM 332	Analytical Chemistry II	3
CHM 332L	Analytical Chemistry II Lab	2
CHM 345	Math and 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 XXX	Restricted Chemistry Elective*	3
XXX XXX	Elective	1
TOTAL HOURS REQUIRED		28

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
APS 411	Applied Sciences Seminar	0
XXX XXX	Electives	6
XXX XXX	Humanities Elective	6
XXX XXX	Restrictive Chemistry Elective*	6
XXX XXX	Social Science Seminar	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 CHM 498	1
ENG 203	Advanced Communication Skills or ENG 303	3
TOTAL HOURS REQUIRED		32

*Select 6 hours from: CHM 397, 398, 473L, 431L, 432, 432L, 475, 481, 497, 498 (Maximum of 1 elective hour of research)

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	56
Electives	18
Other Requirements	12
TOTAL DEGREE HOURS REQUIRED	126

B.S. in Chemistry -- Pre-Medicine (DNIMAS)

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
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 and Community Health	2
MTH 184H	Calculus I	4
MTH 251H	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
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 160	University Physics I	4
PHY 160L	University Physics I Lab	1
BIO 110H	General Biology	4
PHY 161	University Physics II	4
PHY 161L	University Physics II Lab	1
SCM 285H	Principles of Speech	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		34

SUMMARY OF GRADUATION REQUIREMENTS

THIRD YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	Humanities Elective	3
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
XXX XXX	Biology Elective	4
CHM 323L	Synthesis and Analysis in Organic Chemistry Lab	2
CHM 332	Analytical Chemistry II	3
CHM 332L	Analytical Chemistry II Lab	2
CHM 345	Math and Logic in the Physical Sciences	3
CHM 351	Seminar or CHM 352	1
CHM 361	Physical Chemistry I	3
CHM 362	Physical Chemistry II Lab	3
CHM 363L	Physical Chemistry Lab	2
CHM 397	Research or CHM 398	1
CHM 473	Advanced Inorganic Chemistry	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
APS 411	Applied Sciences Seminar	0
XXX XXX	Biology Electives	3
ENG 203/ ENG 303	Advanced Communication Skills	3
XXX XXX	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
TOTAL HOURS REQUIRED		24

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	7
Other Requirements	20
TOTAL DEGREE HOURS REQUIRED	121

B.S. in Computer Science (DNIMAS) Track

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
APS 110	Applied Sciences Seminar	0
APS 111	Applied Sciences Seminar	0
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
CSC 101	Introduction to the Computer Science 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
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
CSC 268	Computer Organization	3
CSC 292	UNIX and C Programming	3
CSC 295	Java Applications Programming	3
MTH 252H	Calculus III	4
MTH 371	Discrete Mathematical Structures	4
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
HED 100	Personal and Community Health	2
PED 100	Fundamental of Fitness for Life	1
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		28

THIRD YEAR

COURSE	COURSE TITLE	HOURS
XXX XXX	Humanities Elective	3
XXX XXX	Foreign Language Elective	3
XXX XXX	Cultural Elective	3
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
CSC 372	Data Structures	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 and Statistics I	3
XXX XXX	Free Elective	2
TOTAL HOURS REQUIRED		29

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
APS 411	Applied Sciences Seminar	0
XXX XXX	CSC or Math Electives (300 Level or Above)	6
XXX XXX	Social Science Electives	6
XXX XXX	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
TOTAL HOURS REQUIRED		30

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	53
Electives	27
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	120

B.S. in Computer Science – (DNIMAS) Computer Engineering Track

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
APS 110	Applied Sciences Seminar	0
APS 111	Applied Sciences Seminar	0
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
CSC 101	Introduction to the Computer Science 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
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
CSC 268	Computer Organization	3
CSC 292	UNIX and C Programming	3
MTH 252	Calculus III	4
MTH 371	Discrete Mathematical Structures	4
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
HED 100	Personal and Community Health	2
PED 100	Fundamental of Fitness for Life	1
XXX XXX	Social Science Elective	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		28

THIRD YEAR

COURSE	COURSE TITLE	HOURS
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
EEE 201	Electronic Network Theory I	3
EEE 201L	Electronic Network Theory I Lab	1
EEE 301	Engineering Electronics I	3
EEE 301L	Engineering Electronics I Lab	1
MTH 351	Probability and Statistics I	3
MTH 372	Differential Equations	3
SCM 285H	Principles of Speech	3
CSC 295	Java Applications Programming	3
CSC 361	Survey of Programming Languages	3
CSC 372	Data Structures	3
CSC 380	Software Engineering	3
CSC XXX	Computer Science Elective (300 level or Above)	3
TOTAL HOURS REQUIRED		32

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
APS 410	Applied Sciences Seminar	0
CSC 430	Data Communications	3
CSC 464	Operating Systems	3
CSC 468	Computer Architecture	3
CSC 498	Computer Seminar I	1
CSC 499	Computer Seminar II	2
EEE 231	Digital Logic Design	3
ENG 303	Technical Writing	3
XXX XXX	EEN Elective (300 Level or Above)	3
XXX XXX	Foreign Language Elective	3
XXX XXX	Cultural Elective	3
XXX XXX	Humanities Elective	3
XXX XXX	Social Science Elective	3
TOTAL HOURS REQUIRED		33

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	27
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	126

B.S. in Applied Mathematics (DNIMAS)

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
APS 110	Applied Sciences Seminar	0
APS 111	Applied Sciences Seminar	0
CHM 221L	General Chemistry I Lab	1
CHM 222L	General Chemistry II Lab	1
CHM 223A	General Chemistry I	4
CHM 224A	General Chemistry II	4
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 and Community Health	2
MTH 184H	Calculus I	4
MTH 251H	Calculus II	4
PED 100	Fundamentals of Fitness for Life	1
TOTAL HOURS REQUIRED		33

SECOND YEAR

COURSE	COURSE TITLE	HOURS
APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
MTH 252H	Calculus III	4
MTH 300	Linear Algebra	3
MTH 372	Differential Equations	3
MTH 384	Math Modeling and Simulation	3
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
XXX XXX	Foreign Language Electives	6
XXX XXX	Free Electives	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		32

THIRD YEAR

COURSE	COURSE TITLE	HOURS
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
ENG 303	Technical Writing	3
MTH 351	Probability and Statistics I	3
MTH 352	Probability and Statistics II	3
MTH 471	Advanced Calculus I	3
MTH 472	Advanced Calculus II	3
SCM 285H	Principles of Speech	3
XXX XXX	Mathematics Elective (MTH 311 or Higher)	3
XXX XXX	Mathematics Elective (MTH 431 or Higher)	3
XXX XXX	Social Sciences Elective	3
TOTAL HOURS REQUIRED		27

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
APS 410	Applied Sciences Seminar	0
APS 411	Applied Sciences Seminar	0
MTH 382	Introduction to Applied Mathematics	3
MTH 401	Numerical Analysis I	3
MTH 402	Numerical Analysis II	3
MTH 484	Topics in Applied Mathematics	3
MTH 496	Mathematics Seminar	2
MTH 497	Mathematics Seminar	2
XXX XXX	Free Electives	3
XXX XXX	Mathematics Electives (MTH 431 or Higher)	6
XXX XXX	Social Science Elective	3
TOTAL HOURS REQUIRED		28

SUMMARY OF GRADUATION REQUIREMENTS

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	50
Electives	30
Other Requirements	0
TOTAL DEGREE HOURS REQUIRED	120

B.S. in Electrical and Electronics Engineering (DNIMAS)

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
APS 110	Applied Sciences Seminar	0
APS 111	Applied Sciences Seminar	0
EEE 100	Introduction to Engineering	3
EEE 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 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
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
CHM 221L	General Chemistry Lab	1
CHM 223A	General Chemistry	4
EEE 201	Electronic Network Theory I	3
EEE 201L	Electronic Network Theory I Lab	1
EEE 202	Electronic Network Theory II	3
EEE 202L	Electronic Network Theory II Lab	1
EEE 211	Materials Science and Engineering	3
EEE 231	Digital Logic Design	3
ENG 299	Writing Competency Exam	0
HED 100	Personal and Community Health	2
MTH 252	Calculus III	4
MTH 372	Differential Equations	3
SCM 285H	Principles of Speech	3
XXX XXX	Humanities Elective	3
TOTAL HOURS REQUIRED		34

THIRD YEAR

COURSE	COURSE TITLE	HOURS
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
EEE 301	Engineering Electronics I	3
EEE 301L	Engineering Electronics I Lab	1
EEE 302	Engineering Electronics II	3
EEE 302L	Engineering Electronics II Lab	1
EEE 305	Signals and Systems	3
EEE 321	Electromagnetic Field Theory	3
EEE 331	Microprocessors	3
EEE 331L	Microprocessors Lab	1
EEE 333	Digital Integrated Circuits	3
EEE 333L	Digital Integrated Circuits Lab	1
EEE 351	Communications Engineering	3
MTH 300	Linear Algebra	3
MTH 351E	Probability and Statistics I	3
XXX XXX	Humanities Elective	3
TOTAL HOURS REQUIRED		34

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
APS 410	Applied Sciences Seminar	0
APS 411	Applied Sciences Seminar	0
EEE 401	Electronics Engineering Seminar	1
EEE 411	Engineering Economics	3
EEE 471	Control Systems	3
EEE 498	Senior Project I	3
EEE 499	Senior Project II	3
XXX XXX	Cultural Elective	3
XXX XXX	Engineering Elective	3
XXX XXX	Social Sciences Elective	6
XXX XXX	Technical Elective	3
XXX XXX	Unrestrictive Elective	3
TOTAL HOURS REQUIRED		31

SUMMARY OF GRADUATION REQUIREMENTS

The Technical Elective may be chosen from 300 level or above courses in math, computer science, chemistry, physics or engineering.

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	24
Other Requirements	12
TOTAL DEGREE HOURS REQUIRED	130

B.S. in Optical Engineering (DNIMAS)

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
APS 110	Applied Sciences Seminar	0
APS 111	Applied Sciences Seminar	0
EEE 100	Introduction to Engineering	3
EEE 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 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
TOTAL HOURS REQUIRED		31

SECOND YEAR

COURSE	COURSE TITLE	HOURS
APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
CHM 221L	General Chemistry Lab	1
CHM 223A	General Chemistry	4
EEN 201	Electrical Network Theory I	3
EEE 201L	Electrical Network Theory I Lab	1
EEE 203	Electronic Principles	3
EEE 211	Materials Science and Engineering	3
ENG 299	Writing Competency Exam	0
HED 100	Personal and Community Health	2
MTH 252	Calculus III	4
MTH 372	Differential Equations	3
OEN 200	Geometrics and Instrumentation Optics	3
OEN 200L	Geometrics and Instrumentation Optics Lab	1
OEN 201	Physical and Instrumentation Optics	3
OEN 201L	Physical and Instrumentation Optics Lab	1
SCM 285H	Principles of Speech	3
TOTAL HOURS REQUIRED		35

THIRD YEAR

COURSE	COURSE TITLE	HOURS
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
EEE 321	Electromagnetic Field Theory	3
MTH 300	Linear Algebra	3
MTH 351E	Probability and Statistics I	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 Optics	3
XXX XXX	Cultural Elective	3
XXX XXX	Humanities Elective	3
XXX XXX	Social Sciences Elective	3
TOTAL HOURS REQUIRED		31

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
APS 410	Applied Sciences Seminar	0
APS 411	Applied Sciences Seminar	0
EEE 411	Engineering Economics	3
OEN 460	Optical Communications I	3
OEN 460L	Optical Communications I Lab	1
OEN 461	Optical Communications II	3
OEN 461L	Optical Communications II Lab	1
OEN 490	Senior Seminar	1
OEN 498	Senior Project I	3
OEN 499	Senior Project II	3
XXX XXX	Engineering Elective	3
XXX XXX	Humanities Elective	3
XXX XXX	Social Sciences Elective	3
XXX XXX	Technical Elective	3
XXX XXX	Unrestrictive Elective	3
TOTAL HOURS REQUIRED		33

SUMMARY OF GRADUATION REQUIREMENTS

The Technical Elective may be chosen from 300 level or above courses in math, computer science, chemistry, physics or engineering.

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	54
Electives	24
Other Requirements	12
TOTAL DEGREE HOURS REQUIRED	130

B.S. in Physics (DNIMAS)

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
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
HED 100	Personal and Community Health	2
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
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
APS 210	Applied Sciences Seminar	0
APS 211	Applied Sciences Seminar	0
CSC 170	Computer Programming I	3
ENG 299	Writing Competency Exam	0
MTH 252	Calculus III	4
MTH 372	Differential Equations	3
PHY 241	Physics Seminar	1
PHY 260	University Physics III	4
PHY 345	Math Methods in Physical Science I	3
PHY 350	Modern Physics	3
PHY 351	Experimental Concepts in Modern Physics	1
SCM 285H	Principle of Speech	3
XXX XXX	Humanities Elective	3
XXX XXX	Computer Science Elective	3
TOTAL HOURS REQUIRED		31

SUMMARY OF GRADUATION REQUIREMENTS

THIRD YEAR

COURSE	COURSE TITLE	HOURS
APS 310	Applied Sciences Seminar	0
APS 311	Applied Sciences Seminar	0
CHM 221L	General Chemistry I Lab	1
CHM 222L	General Chemistry II Lab	1
CHM 223A	General Chemistry I	4
CHM 224A	General Chemistry II	4
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	Math Methods for Physical Science II	3
XXX XXX	Social Science Elective	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
APS 410	Applied Sciences Seminar	0
APS 411	Applied Sciences Seminar	0
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
XXX XXX	Free Electives	5
XXX XXX	Humanities Elective	3
XXX XXX	Cultural Elective	3
XXX XXX	Social Science Elective	3
TOTAL HOURS REQUIRED		29

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	45
Electives	23
Other Requirements	12
TOTAL DEGREE HOURS REQUIRED	120

NAVAL SCIENCE

Captain Thomas V. Halley, Jr
Naval Reserve Officer Training Corps
(757) 823-8895

Recruiter email: hmnrotc-recruiter@odu.edu or
camartin@nsu.edu

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 in Quantico, Virginia, the summer between their junior and senior years.

The two-year NROTC Program (when offered) 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 or enrolled at Tidewater Community College.
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 \$250-\$400 (tax free). For specific information and requirements, contact the Department of Naval Science (camartin@nsu.edu).

Advanced course students in the College Program (non-scholarship) are entitled to subsistence pay at the rate of \$350 JR and \$400 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.

Naval Reserve Officers Training Corp (NROTC)

This Department does not offer a major course program.

CURRICULUM

FIRST YEAR

COURSE	COURSE TITLE	HOURS
NSC 101*	Naval Orientation	2
NSC 102*	Seapower and Maritime Affairs/ HIS 380	3
NSC 111	Naval Laboratory I	1
NSC 112	Naval Laboratory II	1
TOTAL HOURS REQUIRED		7

SECOND YEAR

COURSE	COURSE TITLE	HOURS
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
TOTAL HOURS REQUIRED		8

THIRD YEAR

COURSE	COURSE TITLE	HOURS
NSC 301	Navigation and Naval Operations I	3
NSC 302	Navigation and Naval Operations II	3
NSC 310	Evolution of Warfare (Marine Option Only)	3
NSC 311	Naval Laboratory V	1
NSC 312	Naval Laboratory VI	1
TOTAL HOURS REQUIRED		11

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
NSC 401*	Leadership and Management	3
NSC 402*	Leadership and Ethics	3
NSC 410	Amphibious Warfare (Marine Option Only)	3
NSC 411	Naval Laboratory VII	1
NSC 412	Naval Laboratory VIII	1
TOTAL HOURS REQUIRED		11

*Indicates courses required for NROTC nursing college program and scholarship students.

SCHOOL OF SOCIAL WORK

Dr. Rowena Wilson, Dean

(757) 823-8648

Mrs. Carrie Waites, Associate Dean

(757) 823-8270

The Ethelyn R. Strong School of Social Work at Norfolk State University was established in 1960 with the founding of the Baccalaureate Social Work (BSW) program. Its Master of Social Work (MSW) degree and Doctor of Philosophy in Social Work (Ph.D.) degree programs were added in 1974, and 1995, respectively. Thus, the School, along with its Continuing Education Program, offers the full continuum of social work education.

The School's mission is to provide social work education programs which prepare students with competence to develop and deliver services which strengthen and/or empower individuals, families, and communities. The School and its programs emphasize the values of social justice, social responsibility, and respect of 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.

ACCREDITATION

The School of Social Work's Baccalaureate of Social Work and Master of Social Work Programs are accredited by the Council on Social Work Education (CSWE).

ORGANIZATION OF THE SCHOOL

The School is administered by the Dean. The Associate Dean is responsible for administrative matters. The B.S.W. Program Director is responsible for the B.S.W. Program. The M.S.W. Program Director is responsible for the M.S.W. Program Curriculum. The Director of the Ph.D. Program is responsible for the Ph.D. Program.

ADMISSION REQUIREMENTS

B.S.W. 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 B.S.W. 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. Student must complete or be enrolled in ENG 299.
4. Continued matriculation at the professional level of the Baccalaureate Program requires that the student:
 - a) Maintain an overall G.P.A. of 2.0 or better.
 - b) Maintain an average of 2.5 G.P.A. 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.

BACCALAUREATE SOCIAL WORK

Mrs. Carrie R. Waites, Baccalaureate Program Director
(757) 823-8270

The Baccalaureate Social Work (B.S.W.) 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 (B.S.W.) 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.

B.S.W. 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 that reflects multi-level systems. The program emphasizes social justice and responsibility, and respect for human rights, dignity, and diversity.

GOALS

The goals of the B.S.W. Program are:

1. To prepare the student for employment as a beginning professional social work practitioner utilizing a generalist approach.
2. To prepare the student to work differentially with diverse populations with a special commitment to the affirmation of the unique diversity of ethnically and culturally diverse 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 develop mastery of the core competencies as explicated in the Educational Policy and Accreditation Standards 2008, Council on social work Education, at the beginning professional level.

Baccalaureate Program in Social Work

BACHELOR OF SOCIAL WORK DEGREE CURRICULUM

PRE-SOCIAL WORK REQUIREMENTS

FIRST YEAR

COURSE	COURSE TITLE	HOURS
BIO 105/ BIO 105L	Human Biology	4
CSC 150	Computer Literacy ***	3
ENG 101	Communication Skills I***	3
ENG 102	Communication Skills II***	3
HED 100	Personal and Community Health	2
MTH 103	Contemporary Mathematics	3
PED 100	Fundamentals of Fitness for Life	1
PSY 210	Introduction to Psychology ***	3
SOC 110	Introduction to Sociology or SOC 101, Introductio to Social Sciences ***	3
IUL 101	Introduction to University Life	3
XXX XXX	Restrictive Elective *	2
TOTAL HOURS REQUIRED		30

SECOND YEAR

COURSE	COURSE TITLE	HOURS
ECN 200	Basic Principles of Economics or equivalent	3
HUM 210	Humanities **	3
HIS 100	History of World Societies or HIS 101 or HIS 102 or HIS 103	3
POS 231	American State and Local Government or POS 100	3
PSY 280	Abnormal Psychology ***	3
SCM 285	Principles of Speech	3
SWK 200	Introduction to Social Work	3
SWK 207	Social Welfare Policies and Services I	3
SWK 220	Human Behavior and Social Environment I	3
SCI 101	Introduction to Physical Science	3
ENG 299	Writing Competency Exam	0
TOTAL HOURS REQUIRED		30

* 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 370, HIS 371, JRN 299, PSY 340, SOC 237, POS 315;

Cultural Perspective (Humanities) – ENG383, FIA 370, MUS 234

***** Social Work Elective (Restrictive-Advanced Policy)

SELECT ONE: SWK 411 OR SWK-497

SUMMARY OF GRADUATION REQUIREMENTS

PROFESSIONAL SOCIAL WORK CURRICULUM

PROFESSIONAL SOCIAL WORK REQUIREMENTS

THIRD YEAR

COURSE	COURSE TITLE	HOURS
SOC 331	Social Psychology or PSY 250	3
SOC 344	Methods of Social Research ***	3
SOC 355	Elementary Social Statistics ***	3
SWK 300	Social Welfare Policies and Services II	3
SWK 309	Human Behavior and Social Environment II	3
SWK 312	Introduction to Generalist Practice	3
SWK 313	Generalist Practice: Individuals and Families	3
SWK 319	Human Behavior and Social Environment III	3
SWK XXX	Social Work Elective	3
XXX XXX	Cultural Perspective (Social Sciences) ****	3
TOTAL HOURS REQUIRED		30

FOURTH YEAR

COURSE	COURSE TITLE	HOURS
SWK 318	Generalist Practice: Groups, Organizations and Communities	3
SWK 416	Generalist Practice: Evaluation	3
SWK 490	Practicum Seminar I	1
SWK 491	Practicum Seminar II	1
SWK 495	Practicum in Social Work I	5
SWK 496	Practicum in Social Work II	5
SWK 498A	B.S.W. Field Practicum Orientation I	0
SWK 498B	B.S.W. Field Practicum Orientation II	0
SWK XXX	Social Work Elective (Restricted – Advanced Policy)*****	3
SWK XXX	Social Work Elective	3
HUM XXX	Cultural Perspectives (Humanities)*****	3
XXX XXX	Optional Electives	3
TOTAL HOURS REQUIRED		30

***** Restrictive Elective (Natural Sciences) – CHM 100, PHY 100
SCI 100, Astronomy, Geology, Oceanography, Meteorology

SUBJECT AREA	HOURS
General Education Core	40
Major Requirements	51
Other Requirements	29
TOTAL DEGREE HOURS REQUIRED	120

COURSE DESCRIPTIONS

Course descriptions are notated with the following abbreviations and are listed on the following pages in alphabetical order.

SUBJECT (CODES)

Accounting (ACC)
Arabic (ARA)
Astronomy (AST)
Biology (BIO)
Building Construction Technology (BCT)
Business Administration (BUS)
Chemistry (CHM) Chinese (CHI)
Communication Sciences and Disorders (CSD)
Computer Information Technology (CIT)
Computer Science (CSC)
Cooperative Education (CED)
Criminal Justice (CJS)
Decision Sciences (DSC)
Design Technology Mechanical (TMD)
Drama (DRM)
Economics (ECN)
Education (EDU)
Electrical and Electronics Engineering (EEN)
Electronics Technology (ELT)
Elementary Education (EED/ECE)
Elementary Special Education (ECS)
English (ENG)
Entrepreneurial Studies (ENT)
Exercise Science (EXS)
Fashion Design (FDM)
Finance (FNC)
Fine Arts (FIA)
Food Science Nutrition (FSN)
French (FRN)
General Studies (GST/UNI)
Geography (GEO)
German (GRM)
Health Education (HED)
Health Information Management (HIM)
Health Related Professions (HRP)
Health Rehabilitation Services (HRS)
Health Services Management (HSM)
History (HIS)
Humanities (HUM)
Industrial Education (IED)
Industrial Management Technology (IMT)
Intelligence Studies (INS)
Interdisciplinary Studies (INT)

Japanese (JPN) Journalism (JRN)
Korean (KOR)
Latin (LAT)
Logic (LOG)
Management (MGT)
Management Information Systems (MIS)
Manufacturing Technology (ITM)
Marketing (MKG)
Mass Communications (MCM)
Mathematics (MTH)
Medical Technology (MDT)
Military Science (MSL)
Music (MUS)
Naval Science (NSC)
Nursing (NUR)
Optical Engineering (OEN)
Physical Education (PED)
Physics (PHY)
Political Science (POS)
Psychology (PSY)
Religion (REL)
Secondary Education and Leadership (SED)
Social Work (SWK)
Sociology (SOC)
Spanish (SPN)
Special Education (SPE)
Speech Communication (SCM)
Swahili (SWA)
Theatre (DRM)
Tourism and Hospitality Management (HRM)
Urban Planning (URP)

VARIATION CODE

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 Semesters Only
SI	Sufficient Student Interest
SU	Spring and Summer Semesters 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 (EE)

PREREQUISITE: ACC 201

An introduction to managerial accounting concepts and principles, job order cost systems, process cost systems, cost behavior, cost-volume-profit analysis, budgeting, variance analysis, differential analysis, and capital investment analysis.

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; MIS 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; MIS 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; MIS 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; MIS 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; MIS 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 (SI)

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.

ARABIC (ARA)

111 Three Credits ELEMENTARY ARABIC I

Introduces students to the basic grammar and sentence structures of Arabic and to some aspects of Arab culture. The course includes reading, speaking, listening, and writing to familiarize students with Arabic as it is used in communication situations of everyday life.

112 Three Credits ELEMENTARY ARABIC II

PREREQUISITE: ARA 111

A continuation of the introduction to Arabic language and culture, with emphasis on the basic skills of understanding, reading, speaking, and writing Arabic.

211 Three Credits

INTERMEDIATE ARABIC I

PREREQUISITE : ARA 112

Emphasis on grammar, reading and discussion of moderately difficult prose in Modern Standard Arabic, oral practice, and written composition.

212 Three Credits

INTERMEDIATE ARABIC II

PREREQUISITE : ARA 211

Intensive and extensive study and reading of modern standard Arabic prose, oral practice, and written composition

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. Astrography, photometry and spectrography using CCD cameras.

302 Three Credits

ASTROBIOLOGY

PREREQUISITE: AST 201

Study of the 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 I (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 biomolecules, cell organelle structure and function, chemical aspects of cells, introduction to contemporary genetics, cellular metabolism, and some contrasting aspects of DNA structure and function in prokaryotes and eukaryotes.

110L One Credit

GENERAL BIOLOGY LABORATORY (E)

COREQUISITE: BIO 110 or Consent of Chair

First part of a two part General Biology laboratory course to be completed in the first semester of the first year of the Biology Curriculum. Science majors only. Reemphasizes lecture concepts at the cellular and molecular level of biological systems. Also introduces genetics as heredity and nucleic acid, metabolism, the scientific method, and protein structural function.

111 Three Credits

GENERAL BIOLOGY II (E)

PREREQUISITE: BIO 110 or Consent of Chair

COREQUISITE: BIO 111L or Consent of Chair

The course is a comprehensive survey of basic biological concepts and principles with emphasis at the organismal level of biological systems. While kingdom organisms are included, plant/animal structure and function, human anatomy/physiology (human organ systems), and ecosystems are also emphasized.

111L One Credit

GENERAL BIOLOGY II LABORATORY (E)

PREREQUISITE: BIO 110L

COREQUISITE: BIO 111 or
Consent of Chair

The second part of an introductory laboratory course for science majors designed as a hands-on study of the organismal level of biological systems. Experimental topics in the course include the structure and function of prokaryotes, plants, and animals. The scientific method is emphasized as students collect, analyze, and discuss data relevance to each topic.

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 Ea.

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.

253 Three Credits

HUMAN PHYSIOLOGY (E)

PREREQUISITE: BIO 272 or
Consent of the Instructor

Survey of the integration of functions in the human body, noting their structural relationships.

258 Three Credits

GENERAL ENTOMOLOGY (SI)

PREREQUISITE: BIO 260

COREQUISITE: BIO 258L or
Consent of Chair

Study of the basic morphology, physiology, ecology, and economic importance of insects.

258L One Credit

GENERAL ENTOMOLOGY LABORATORY (SI)

PREREQUISITE: BIO 260

COREQUISITE: BIO 258 or
Consent of Chair

Demonstrates the basic morphology, physiology, ecology, and economic importance of insects.

260 Three Credits

GENERAL ZOOLOGY (E)

PREREQUISITE: BIO 110, 111

COREQUISITE: BIO 110L or
Consent of Chair

Biological concepts of animal life, including morphology, taxonomy, life histories, reproduction and distribution.

260L One Credit

GENERAL ZOOLOGY LABORATORY (E)

PREREQUISITE: BIO 110, 111

COREQUISITE: BIO 260 or
Consent of Chair

Biological concepts of animal life, including morphology, taxonomy, life histories, reproduction and distribution.

261 Three Credits

GENERAL BOTANY (E)

PREREQUISITE: BIO 110, III

COREQUISITE: BIO 261L 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.

261L One Credit

GENERAL BOTANY LABORATORY (E)

PREREQUISITE: BIO 110, 111

COREQUISITE: BIO 261 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.

262 Two Credit

NATURAL HISTORY (SI)

PREREQUISITE: NONE

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).

263 Three Credits

VERTEBRATE EMBRYOLOGY (SO)

PREREQUISITE: BIO 260

COREQUISITE: BIO 263L or
Consent of Chair

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.

263L One Credit

VERTEBRATE EMBRYOLOGY LABORATORY (SO)

PREREQUISITE: BIO 260

COREQUISITE: BIO 263 or
Consent of Chair

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.

270 Three Credits

COMPARATIVE ANATOMY OF VERTEBRATES (FO)

PREREQUISITE: BIO 260

COREQUISITE: BIO 270L or
Consent of Chair

Study of the classification, morphology, and anatomy of vertebrates, including the functions of their organs and organ systems.

270L One Credit
COMPARATIVE ANATOMY OF VERTEBRATES LABORATORY (FO)

PREREQUISITE: BIO 260

COREQUISITE: BIO 270 or
 Consent of Chair

Study of the classification, morphology, and anatomy of vertebrates, including the functions of their organs and organ systems.

271 Three Credits
ECOLOGY (FO)

PREREQUISITES: BIO 260; BIO 261

COREQUISITE: BIO 271L or
 Consent of Chair

Composition and distribution of biotic communities, emphasizing interrelationships of organisms and their physical environment with application to current environmental problems.

271L One Credit
ECOLOGY LABORATORY (FO)

PREREQUISITES: BIO 260; BIO 261

COREQUISITE: BIO 271 or
 Consent of Chair

Composition and distribution of biotic communities, emphasizing interrelationships of organisms and their physical environment with application to current environmental problems.

272 Three Credits
HUMAN ANATOMY (EE)

PREREQUISITE: BIO 110

COREQUISITE: BIO 272L or
 Consent of Chair

Study of the basic structure of organs and organ systems of the body.

272L One Credit
HUMAN ANATOMY LABORATORY (EE)

PREREQUISITE: BIO 110

COREQUISITE: BIO 272 or
 Consent of Chair

Study of the basic structure of organs and organ systems of the body.

274 Three Credits
PLANT MORPHOLOGY (SI)

PREREQUISITE: BIO 261

COREQUISITE: BIO 274L or
 Consent of Chair

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.

274L One Credit
PLANT MORPHOLOGY LABORATORY (SI)

PREREQUISITE: BIO 261

COREQUISITE: BIO 274 or
 Consent of Chair

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.

276 Three Credits
INVERTEBRATE ZOOLOGY (SI)

PREREQUISITE: BIO 260

COREQUISITE: BIO 276L or
 Consent of Chair

Development, morphology, comparative anatomy, phylogeny, classification and physiology of invertebrates.

276L One Credit
INVERTEBRATE ZOOLOGY LABORATORY (SI)

PREREQUISITE: BIO 260

COREQUISITE: BIO 276 or
 Consent of Chair

Laboratory focuses on the development, morphology, comparative anatomy, phylogeny, classification and physiology of invertebrates.

278 Three Credits
CELL BIOLOGY (SU)

PREREQUISITES: BIO 260; BIO 261; CHM 222; CHM 222L

COREQUISITE: BIO 278L or
 Consent of Chair

Study of intracellular mechanisms and the influence of such processes on the cell and its extracellular environment.

278L One Credit
CELL BIOLOGY LABORATORY (SU)

PREREQUISITES: BIO 260; BIO 261; CHM 221/ 221L; CHM 222/ 222L

COREQUISITE: BIO 278 or
 Consent of Chair

Study of intracellular mechanisms and the influence of such processes on the cell and its extracellular environment.

310 Three Credits
GENERAL MICROBIOLOGY (E)

PREREQUISITES: BIO 260 or BIO 261; CHM 221/ 221L and CHM 222/ 222L

COREQUISITE: BIO 310L or
 Consent of Chair

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.

310L One Credit
GENERAL MICROBIOLOGY LABORATORY (E)

PREREQUISITES: BIO 260 or BIO 261; CHM 221/ 221L and CHM 222/ 222L

COREQUISITE: BIO 310 or
 Consent of Chair

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.

320 Three Credits
PATHOPHYSIOLOGY (E)

PREREQUISITES: BIO 165 and 166

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.

330 Three Credits
REVIEW OF HUMAN ANATOMY, PHYSIOLOGY AND MICROBIOLOGY FOR HEALTH PROFESSIONS (SI)

PREREQUISITES: BIO 166 and 163

COREQUISITE: BIO 330L or
 Consent of Chair

Study of the structure and function of the human body.

330L One Credit
REVIEW OF HUMAN ANATOMY, PHYSIOLOGY AND MICROBIOLOGY FOR HEALTH PROFESSIONS LABORATORY (SI)

PREREQUISITES: BIO 166 and BIO 163

COREQUISITE: BIO 330 or Consent of Chair

Current practices of sterilization, aseptic techniques, cultural methods, principles of host defense mechanisms, and infectious disease processes.

350 Three Credits
PARASITOLOGY (SO)

PREREQUISITE: BIO 110

COREQUISITE: BIO 350L or Consent of Chair

Study of symbiotic relationships between representatives that are dependent upon a symbiont and the clinical and pathological implications inherent in such a relationship.

350L One Credit
PARASITOLOGY LABORATORY (SO)

PREREQUISITE: BIO 110

COREQUISITE: BIO 350 or Consent of Chair

Inquiry-based application of the clinical and pathological implications of inherent relationships established between symbionts.

351 Three Credits
PRINCIPLES OF GENETICS (EE)

PREREQUISITES: BIO 260 and BIO 261; CHM 222

COREQUISITE: BIO 351L or Consent of Chair

Introductory course dealing with the principles of heredity and variation in plants and animals, including man.

351L One Credit
PRINCIPLES OF GENETICS LABORATORY (EE)

PREREQUISITES: BIO 260 and BIO 261; CHM 222

COREQUISITE: BIO 351 or Consent of Chair

Introductory genetic labs are designed to provide exercises that deal with the principles of heredity and variation in plants and animals, including man.

362 Three Credits

HISTOLOGY AND MICRO TECHNIQUE (SI)

PREREQUISITES: BIO 260 and BIO 261

COREQUISITE: BIO 362L or Consent of Instructor

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.

362L One Credit
HISTOLOGY AND MICRO TECHNIQUE LABORATORY (SI)

PREREQUISITES: BIO 260 and BIO 261

COREQUISITE: BIO 362 or Consent of Instructor

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.

364 One Credit
SEMINAR AND COLLOQUIUM IN BIOLOGY (EE)

PREREQUISITE: Junior or Senior Standing or Consent of Instructor

Consideration of current research and development in biology, including reviews, reports, and discussions of investigations reported in scientific journals.

400 Three Credits
FORENSIC MOLECULAR BIOLOGY (EE)

PREREQUISITE: Junior or Senior Standing or Consent of Instructor

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.

400L One Credit
FORENSIC MOLECULAR BIOLOGY LAB (EE)

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.

452 Two Credits
BIOLOGICAL INSTRUMENTAL TECHNIQUES (EE)

PREREQUISITES: CHM 221/ 221L and CHM 222/ 222L

Training and practice in various bioinstrumental techniques, including statistical analysis of data, respirometry, photo microscopy, pectrophotometry, chromatography, electrophoresis, and physiological measurements.

457 Two Credits
EVOLUTION (SI)

PREREQUISITE: BIO 351 or Consent of Instructor

Discussion and lectures on the organic evolution of plants and animals.

459 Three Credits
GENERAL PHYSIOLOGY (E)

PREREQUISITES: 16 semester hours of Biology and Organic Chemistry

COREQUISITE: BIO 459L or Consent of Chair

Discusses fundamental principles and properties of physiological processes common to animals.

459L One Credit
GENERAL PHYSIOLOGY LABORATORY (E)

PREREQUISITES: 16 semester hours of Biology and Organic Chemistry

COREQUISITE: BIO 459L or Consent of Chair

Demonstrates fundamental principles and properties of physiological processes common to animals.

461 Three Credits
PLANT PHYSIOLOGY (SI)

PREREQUISITES: BIO 261; CHM 322, 322L

COREQUISITE: 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.

461L One Credit

PLANT PHYSIOLOGY LABORATORY (SI)

PREREQUISITES: BIO 261; CHM 322, 322L

COREQUISITE: 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.

469 Three Credits

BIOCHEMISTRY (SI)

PREREQUISITES: CHM 222 or equivalent

COREQUISITE: 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 action; and biochemical aspects of synthesis.

469L One Credit

BIOCHEMISTRY LABORATORY (SI)

PREREQUISITE: CHM 222 or equivalent

COREQUISITE: 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 action; and biochemical aspects of synthesis.

472 Three Credits

CELL STRUCTURE AND FUNCTION (SI)

PREREQUISITES: BIO 260, 161; CHM 222, 222L

Introduction to biochemistry, cellular metabolism, and cellular ultrastructure as they relate to cell function.

474 Three Credits

MOLECULAR BIOLOGY (EE)

PREREQUISITES: 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.

474L Two Credits

MOLECULAR BIOLOGY LABORATORY (EE)

PREREQUISITE: Consent of the Instructor

Introduction to the basic techniques in Recombinant DNA which encompasses the principles and practical aspects of 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.

480 Four Credits

INTRODUCTION TO ENVIRONMENTAL TOXICOLOGY (SO)

PREREQUISITES: 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.

482 Four Credits

EPIDEMIOLOGY (FO)

PREREQUISITE: BIO 310

Basic principles and methods of Epidemiology and the application to communicable and non-communicable 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.

487 Three Credits

ECOLOGICAL TOXICOLOGY

PREREQUISITE: BIO 271

COREQUISITE: BIO 487L or
Consent of Chair

Study of the commonly used pesticides, their toxicity and implications for man and environment.

487L One Credit

ECOLOGICAL TOXICOLOGY LABORATORY

PREREQUISITE: BIO 271

COREQUISITE: BIO 487 or
Consent of Chair

Studies the use of pesticides, their toxicity and implications for man and environment.

490 Three Credits

IMMUNOLOGY OF TOXINS

PREREQUISITE: BIO 310

COREQUISITE: 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.

490L One Credit

IMMUNOLOGY OF TOXINS LABORATORY

PREREQUISITE: BIO 310

COREQUISITE: BIO 490 or
Consent of Chair

Special emphasis on the immune response of animals to infectious agents, microbial toxins and environmental toxins.

492 Four Credits

PRINCIPLES OF GENETIC TOXICOLOGY (SI)

PREREQUISITES: 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.

494 Three Credits

MEDICAL ENTOMOLOGY (SI)

PREREQUISITE: BIO 260

COREQUISITE: BIO 494L or
Consent of Chair

Study of the taxonomy, morphology, behavior, and relationships of arthropods of medical importance, and arthropod-borne human diseases.

494L One Credit

MEDICAL ENTOMOLOGY LABORATORY (SI)

PREREQUISITE: BIO 260

COREQUISITE: 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.

495 Four Credits

BIostatISTICS (FO)

PREREQUISITES: 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.

496 Four Credits

SPECIAL PROBLEMS IN TOXICOLOGY (SI)

PREREQUISITES: BIO 495; CHM 322 and 322L

Discussion and practical work sessions concerning the development of ideas and activities for specific experimental studies. The specific features include conversance with current methodology, initiation of independent and original protocols as a toxicological tool.

497 Two Credits

INTRODUCTION TO RESEARCH (EE)

PREREQUISITE: Junior or Senior Standing

Introduction to independent experimental work under the guidance of staff members. Provisions or Honors and undergraduate research participation projects and investigations.

499 Three Credits

TISSUE AND CELL CULTURE (SI)

PREREQUISITE: Consent of Instructor

COREQUISITE: 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.

499L One Credit

TISSUE AND CELL CULTURE LABORATORY (SI)

PREREQUISITE: Consent of Instructor

COREQUISITE: BIO 499

Experience in fundamental aspects of handling cell lines.

500 Three Credits

BIOLOGICAL ASPECTS OF AGING

Study designed for gerontology students concerning the scientific basis of the causes, effects, mechanisms, and functions of growing old.

501 Three Credits

HISTORY OF BIOLOGICAL CONCEPTS

PREREQUISITES: BIO110 AND BIO 474

Study of significant developments in the field of biology that influenced modern biological concepts. Discoveries and their impact on technological advances are discussed.

502 Three Credits

MODERN BIOLOGY

PREREQUISITES: BIO-110 or EQUIVALENT AND CHM-321, 322

Fundamental concepts of biology at the organismal, cellular, and molecular levels. Emphasis on molecular biology of cells function and organization; topics include animal cells, assembly cell structure, principles and mechanisms.

510 Three Credits

EXPERIENCE IN BIOLOGY

Theory and practice of selected biological and biochemical techniques of current importance to molecular biology, including a coordinated succession of experiments employing modern laboratory tools to examine.

BUILDING CONSTRUCTION/ TECHNOLOGY (BCT)

162 Three Credits

MATERIALS OF CONSTRUCTION (FO)

A comprehensive study of construction materials, their characteristics, advantages, and

limitations. Emphasis will be placed upon how these materials are used in various building systems, with emphasis on costs and durability.

260 Three Credits

BUILDING CODES AND SPECIFICATIONS (FO)

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.

262 Three Credits

METHODS OF BUILDING CONSTRUCTION I (SO)

PREREQUISITE: BCT 162

A comprehensive study where emphasis is placed on the design, planning and methods of the 16 CSI divisions. Local and national building codes and techniques are emphasized.

263 Three Credits

FUNDAMENTALS OF SURVEYING (FO)

Principles and practices of using basic surveying instruments, error analysis, and note keeping. (Meets 4 hrs. per week.)

264 Three Credits

INTERMEDIATE SURVEYING (SO)

PREREQUISITE: 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.)

265 Three Credits

ARCHITECTURAL DETAILS (FO)

PREREQUISITE: TMD 150, TMD 151

A comprehensive study of building components for light residential construction. If covers all aspects of residential planning and design. The basic planning principles and procedures are presented in detail. Electrical and mechanical systems will be covered to include the efficient use of energy in architecture design. (Meets 6 hrs. per week.)

266 Three Credits

ARCHITECTURAL DRAFTING (SO)

PREREQUISITES: TMD 150, TMD 151, BCT 265

A comprehensive study of building components for light commercial construction. It covers all aspects of residential planning and design. The basic planning principles and procedures are presented in detail. Electrical and mechanical systems will be covered to include the efficient use of energy in architecture design. (Meets 6 hrs. per week.)

363 Three Credits

METHODS OF BUILDING CONSTRUCTION II (FO)

PREREQUISITE: BCT 262

Comprehensive study of building construction techniques in the construction industry. Emphasis on residential and commercial type structures. Field trips are included.

364 Three Credits

STEEL STRUCTURES (E)

PREREQUISITES: TMD 345, 345L

Theory and practice in the design and fabrication of structural steel in conformance with current codes and practices. (Meets 4 hrs. per week.)

367 Three Credits

CONCRETE STRUCTURES (SI)

PREREQUISITES: TMD 345, 345L

Theory and practice in the design of concrete structures in conformance with current codes and practices

368 Three Credits

TIMBER STRUCTURES

PREREQUISITES: TMD 345, 345L

Theory and practice in the design and fabrication of structural timber in conformance with current codes and practices.

370 Three Credits

COST ESTIMATES AND QUALITY CONTROL I (SO)

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., as well as, blueprint reading techniques.

372 Three Credits

BUILDING CONSTRUCTION PRACTICES (SI)

Designed to provide practical experiences using the latest techniques in working with masonry, wood, electrical, plumbing, steel and concrete structures.

376 Three Credits

SOIL MECHANICS (SO)

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 One Credit

SOIL MECHANICS LABORATORY (SO)

COREQUISITE: BCT 376

Study of the skills necessary to perform soils testing.

462 Three Credits

PROBLEM ANALYSIS AND PLANNING (FO)

PREREQUISITES: BCT 260 and 370

Consideration given to individual problem solving and analysis in specialized areas.

464 Three Credits

ORGANIZATION AND SUPERVISION OF CONSTRUCTION (FO)

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 Three Credits

STRUCTURAL PLANNING AND DESIGN (SO)

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 Three Credits

INTRODUCTION TO BUSINESS AND ENTREPRENEURSHIP (E)

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 Three Credits

LEGAL ENVIRONMENT FOR BUSINESS (EE)

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 Three Credits

INTERNSHIP (SI)

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 Three Credits

BUSINESS COMMUNICATIONS (EE)

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 Three Credits

COMMERCIAL LAW (SS)

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 Three Credits

INDEPENDENT STUDY (SI)

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)

100L One Credit

CHEMISTRY: MAN AND ENVIRONMENT LABORATORY (E)

COREQUISITE: SCI 101

Introduction to laboratory techniques in chemistry for the non science majors.

110 Three Credits
BASIC CONCEPTS IN CHEMISTRY (SI)

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 Three Credits Each

GENERAL CHEMISTRY FOR NON-SCIENCE MAJORS (SI)

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 One Credit Each

GENERAL CHEMISTRY LABORATORY (SI)

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 Three Credits
CHEMISTRY FOR LIFE (SI)

PREREQUISITE: High School Chemistry or SCI 101

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 One Credit

CHEMISTRY FOR LIFE LABORATORY (SI)

COREQUISITE: CHM 200

Laboratory demonstrates concrete examples of the concepts.

210 Three Credits
GENERAL CHEMISTRY FOR ENGINEERS (FO)

COREQUISITE: MTH 153

General Chemistry for engineering majors, emphasizing theoretical principles necessary for an understanding of the nature of matter and the physical and chemical changes which it undergoes. A good understanding of algebra is needed because of the problem solving nature of much of the work.

215, 216 Three Credits Each

CHEMISTRY (FO) (SI)

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 One Credit Each

CHEMISTRY LABORATORY (FO) (SI)

COREQUISITE: CHM 215, 216

Introduction to laboratory techniques in chemistry. For the Health Science/Exercise Science Majors.

221, 222 Three Credits Each

GENERAL CHEMISTRY I, II (EE)

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 One Credit Each

GENERAL CHEMISTRY LABORATORY I, II (EE)

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 Four Credits Each

GENERAL CHEMISTRY I, II (EE)

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 Three Credits
INTRODUCTION TO ORGANIC CHEMISTRY (O)

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 One Credit
ORGANIC CHEMISTRY LABORATORY (O)

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 Three Credits
INTRODUCTION TO BIOCHEMISTRY (O)

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 One Credit
BIOCHEMISTRY LABORATORY (O)

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 Three Credits
Each**

**ORGANIC CHEMISTRY I, II (EE)
(E)**

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 Two Credits
Each**

**ORGANIC CHEMISTRY
LABORATORY I, II (EE)**

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 Two Credits

**SYNTHESIS AND ANALYSIS IN
ORGANIC CHEMISTRY (SO)**

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 Three Credits

ANALYTICAL CHEMISTRY I (SO)

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 Two Credits

**ANALYTICAL CHEMISTRY I
LABORATORY (SO)**

COREQUISITE: CHM 331

Practice of volumetric and gravimetric methods of analysis, including the use of instruments such as pH meters and electroanalyzers.

332 Three Credits

ANALYTICAL CHEMISTRY II (FO)

PREREQUISITE: CHM 331; PHY 152

COREQUISITE: CHM 322L

Study of instrumental methods of analysis, including electrochemical, spectroscopic, chromatographic, thermal, and kinetic methods.

332L Two Credits

**ANALYTICAL CHEMISTRY II
LABORATORY (FO)**

PREREQUISITE: CHM 331L

COREQUISITE: CHM 332

Methods of analysis employing electrochemical techniques, spectrophotometer, chromatograph, microprocessor analyzers, and thermal analyzers.

345 Three Credits

**MATHEMATICAL METHODS and
LOGIC FOR THE PHYSICAL
SCIENCES (FO)**

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 One Credit
Each**

SEMINAR (EE)

Presentation and discussion of current topics in all areas of chemistry. Required of junior chemistry majors.

**361, 362 Three Credits
Each**

PHYSICAL CHEMISTRY I, II (EE)

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 rest. Covers energy changes accompanying physical and chemical changes. Must be taken in sequence.

363L Two Credits

**PHYSICAL CHEMISTRY
LABORATORY (SO)**

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 Three Credits

INDUSTRIAL CHEMISTRY (SI)

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 One Credit
Each**

**INTRODUCTION TO RESEARCH
(EE)**

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 Three Credits
Each**

BIOCHEMISTRY I, II (EE)

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 Two Credits
Each**

**BIOCHEMISTRY LABORATORY I,
II (EE)**

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 Three Credits
PATHOLOGICAL BIOCHEMISTRY (SI)

PREREQUISITE: CHM 432

Study of the biochemical principles and mechanisms as they apply to the disease state.

451, 452 One Credit
Each

SEMINAR (EE)

Presentation and discussion of current topics in all areas of chemistry. Required of all senior chemistry majors.

461L Two Credits
CHROMATOGRAPHY (SI)

PREREQUISITE: CHM 332L

Problem solving in separation of mixtures using gas, liquid, column and thin-layer chromatography.

462L Two Credits
SPECTROSCOPY (SI)

PREREQUISITE: CHM 332L

Problem solving in molecular spectroscopy using common techniques in infrared spectroscopy, nuclear magnetic spectroscopy, and ultraviolet-visible spectroscopy.

471 Three Credits
TOXICOLOGY (SI)

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 Three Credits
ADVANCED INORGANIC CHEMISTRY (FO)

PREREQUISITE/ COREQUISITE:
CHM 362

Study of chemical bonding, molecular structure, coordination compounds, and descriptive inorganic chemistry.

473L Two Credits
ADVANCED INORGANIC CHEMISTRY LABORATORY (FO)

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 Three Credits
ADVANCED ORGANIC CHEMISTRY (SI)

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 Three Credits
QUALITATIVE ORGANIC ANALYSIS (SI)

PREREQUISITE: CHM 322L or
CHM 323L

Introduction to a wider range of laboratory techniques and consideration of classical wet analysis.

477 Three Credits
SCIENTIFIC COMMUNICATION (SI)

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 Three Credits
INTRODUCTION TO INORGANIC SPECTROSCOPY (SI)

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 Three Credits
Each
SPECIAL TOPICS IN CHEMISTRY (SI)

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 One Credit
Each

INTRODUCTION TO RESEARCH (EE)

PREREQUISITE: Approval of the Instructor Involved Investigation of current problems in chemistry supervised by one of the Chemistry Department instructors. (5 hours per week).

CHINESE (CHI)

111 Three Credits
ELEMENTARY CHINESE I

Introduces students to the basic grammar and sentence structures of Chinese and to some aspects of Chinese culture. The course includes reading, speaking, listening, and writing to familiarize students with Chinese as it is used in communication situations of everyday life.

112 Three Credits
ELEMENTARY CHINESE II
PREREQUISITE: CHI 111

A continuation of the introduction to Chinese language and culture, with emphasis on the basic skills of understanding, reading, speaking, and writing Chinese.

COMMUNICATION SCIENCES AND DISORDERS (CSD)

101 Three Credits
ORAL COMMUNICATION ENHANCEMENT (E)

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 One Credit
ORIENTATION TO COMMUNICATION SCIENCES AND DISORDERS (E)

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 Three Credits
PHONETICS (SO)

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 Three Credits
SPEECH AND LANGUAGE DEVELOPMENT (SO)

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 One Credit
USE OF COMPUTERS AND OTHER INSTRUMENTATION IN COMMUNICATION SCIENCES AND DISORDERS (FO)

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 Three Credits
ANATOMY AND PHYSIOLOGY OF THE SPEECH MECHANISM (FO)

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 Three Credits
METHODS AND MATERIALS IN COMMUNICATION SCIENCES AND DISORDERS (FO)

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 Three Credits
PHONOLOGICAL, ARTICULATORY AND RELATED LANGUAGE DISORDERS (FO)

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 Three Credits
INTRODUCTION TO AUDIOLOGY AND HEARING SCIENCES (FO)

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.

314 Three Credits
AUDIOLOGY AND HEARING SCIENCES II (SO)

PREREQUISITES: CSD 313

Audiology II is a continuation to the introduction to Audiology and hearing sciences. Students identify the various auditory pathologies and their associated audiological manifestations. Assessments of special populations are considered.

315 Three Credits
NEUROGENIC AND OTHER ORGANIC COMMUNICATIONS DISORDERS (SO)

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 Three Credits
VOICE AND SPEECH SCIENCES (SO)

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 Three Credits
RESEARCH METHODS IN COMMUNICATION SCIENCES AND DISORDERS (FO)

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 Three Credits
VOICE AND FLUENCY DISORDERS (FO)

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 Three Credits
CLINICAL PROCEDURES IN COMMUNICATION SCIENCES AND DISORDERS (E)

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 Three Credits
REHABILITATION OF HEARING DISORDERS (SO)

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 Three Credits
CLINICAL PRACTICUM IN COMMUNICATION SCIENCES AND DISORDERS (E)

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 One Credit
SEMINAR TOPICS IN COMMUNICATION SCIENCES AND DISORDERS (E)

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.)

420 Three Credits
DIFFERENTIAL DIAGNOSTIC AUDIOLOGY (SO)

PREREQUISITE: CSD 314

A comprehensive review of the hearing process in health and disease; the medical aspects of hearing impairment, techniques currently in use to evaluate hearing disorders, treatment and management of patients with advanced types and degrees of auditory pathology.

COMPUTER INFORMATION TECHNOLOGY (CIT)

204 Three Credits
DIGITAL LOGIC (SO)

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 One Credit
DIGITAL LOGIC LAB (SO)

PREREQUISITES: ELT 212, 212L

COREQUISITE: CIT 204

Practical experience in designing, building, and testing digital circuits and methods.

304 Three Credits
DIGITAL SYSTEM DESIGN (SO)

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 One Credit
DIGITAL SYSTEM DESIGN (SO)

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 Three Credits
COMPUTER ORGANIZATION (FO)

PREREQUISITES: CSC 150; CIT 204, 204L

COREQUISITE: CIT 305L

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 One Credit
COMPUTER ORGANIZATION LAB (FO)

PREREQUISITES: CSC 150; CIT 204, 204L

COREQUISITE: CIT 305

Practical experience in UNIX commands, windows, utility and diagnostic software and data protection and recovery.

315 Three Credits
MICROPROCESSORS (EE)

PREREQUISITES: CIT 304, 304L

COREQUISITE: CIT 315L

This course is an introduction to the detailed knowledge of microcontroller peripherals and their use. The course makes use of the Microchip IDE (Integrated Development Environment) and the assembler to control complex systems.

315L One Credit
MICROPROCESSOR LABORATORY (EE)

PREREQUISITE: CIT 304, CIT 304L

COREQUISITE: CIT 315

This course is the laboratory component of CIT 336 Computer Networks I lecture. Students will perform laboratory exercises on such topics as cabling programming network devices and setting up simple networks.

336 Three Credits
COMPUTER NETWORKS TECHNOLOGY (SO)

COREQUISITE: CIT 336L

The study of the hardware and software aspects of computer and communications networks, topics include cabling, local area networks (LANs) wide area networks (WANs), protocols, standards and the OSI reference model. The setup and programming of switches, routers (distance vector), security devices and other network devices is included.

336L One Credit
COMPUTER NETWORKS TECHNOLOGY LABORATORY(SO)

COREQUISITE: CIT 336

This course is the laboratory component of CIT 336 Computer Networks I lecture. Students will perform laboratory exercises on such topics as cabling programming network devices and setting up simple networks.

432 Three Credits
COMPUTER INTERFACES AND PERIPHERAL DEVICES (FO)

PREREQUISITES: CIT 304, 304L, 315

COREQUISITE: CIT 432L

Study of computer interfaces and peripheral devices, the programming, operation, and interfacing of the microprocessor, 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.

432L One Credit
COMPUTER INTERFACES LABORATORY (FO)

PREREQUISITES: CIT 315, 315L

COREQUISITE: CIT 432

Course consists of individual or small group projects of building a Microprocessor controlled robot.

436 Three Credits
COMPUTER NETWORKS TECHNOLOGY II (FO)

PREREQUISITES: CIT 336, CIT 336L

COREQUISITE: CIT 436L

The study of advanced networking concepts. Topics include variable length, subnet masking, link state router protocols, Internet Protocol Version 6 (IPv6), Virtual LANS (VLANs), Asynchronous transfer mode (ATM), Virtual Private Networks, Security, Voice over

Internet Protocol (VOIP) and optical networking.

436L One Credit
COMPUTER NETWORKS TECHNOLOGY II LABORATORY(SO)

PREREQUISITES: CIT 336, CIT 336L

COREQUISITE: CIT 436

This course is the laboratory component for CIT 436 lecture. The student will perform laboratory exercises in related to computer network design, development and troubleshooting.

499 Three Credits
SENIOR PROJECT (SO)

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 One Credit
INTRODUCTION TO THE COMPUTER SCIENCE PROFESSION (FO)

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.

111 Three Credits
INFORMATION TECHNOLOGY PRINCIPLES (SO)

An introductory course that exposes students to the academic discipline of Information Technology (IT). Pervasive IT themes; IT history, organizational, social, and ethical issues, and relationship of IT to other computing disciplines will be covered.

150 Three Credits
COMPUTER CONCEPTS AND APPLICATIONS (E)

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 Four Credits
INTERNETWORKING I (SI)

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 Four Credits
INTERNETWORKING II (SI)

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 Three Credits
VISUAL BASIC PROGRAMMING (SI)

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 Three Credits
INTRODUCTION TO COMPUTER SCIENCE (EE)

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 Three Credits
COMPUTER PROGRAMMING I (E)
 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 One Credit
COMPUTER PROGRAMMING I LAB (E)
 PREREQUISITE: MTH 151

COREQUISITE: CSC 170

Supplementary course to CSC 170 structured as a closed computer laboratory to complete specific programming tasks within a fixed time.

192 One Credit
INTRODUCTION TO THE INTERNET (SI)
 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 Three Credits
INTERNET PROGRAMMING WITH JAVA (FO)
 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 Three Credits
ADVANCED COMPUTER CONCEPTS (E)
 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.

211 Three Credits
INFORMATION TECHNOLOGY OPERATING SYSTEMS (FO)
 PREREQUISITES: CSC 111; CSC 260

An introduction to the basics of computer operating systems including file systems, configuration, interprocess communication, security, administration, interfacing, multitasking, and performance analysis.

251 Four Credits
INTERNETWORKING III (SI)
 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 Four Credits
INTERNETWORKING IV (SI)
 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 Three Credits
COMPUTER PROGRAMMING II (EE)
 PREREQUISITE: CSC 170

Introduction to data structures, algorithms and building objects. Topics include linked lists, stacks and queues, recursion and binary trees.

260L One Credit
COMPUTER PROGRAMMING II LAB (EE)
 PREREQUISITE: MTH 151
 COREQUISITE: CSC 260

Supplementary course to CSC 260 structured as a closed computer laboratory to complete specific programming tasks within a fixed time.

268 Three Credits
COMPUTER ORGANIZATION (EE)
 PREREQUISITE: CSC 170

Fundamentals of the architecture and operation of modern computers. Computer arithmetic: binary, hexadecimal and decimal number conversions, binary number arithmetic and IEEE binary floating point number standard. Basic computer logic: gates, combinational circuits, sequential circuits, adders, ALU, SRAM and DRAM. Basic assembly language programming, basic Instruction Set Architecture (ISA), and the design of single cycle CPU. The MIPS based computers are used as example architecture, and alternative architectures are also discussed.

270 Three Credits
DISCRETE STRUCTURES (SI)
 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 Three Credits
UNIX AND C PROGRAMMING (SO)
 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 Three Credits
JAVA APPLICATIONS PROGRAMMING (SO)
 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.

311 Three Credits
FUNDAMENTALS OF NETWORKING (FO)
 PREREQUISITE: CSC 111

This is an introductory course that covers the basics of how networks work, including the topics of OSI

model, Internet model, network components, LANs, WANs, routers, switches, wireless communication, network security, TCP/IP Internet protocols, and network applications such as web and email. It also covers the fundamental aspects of configuring and troubleshooting network features on a Windows or Unix workstation.

312 Three Credits

TOPICS IN INFORMATION TECHNOLOGY (SI)

PREREQUISITE: CSC 311

Advanced Information Technology topics not generally covered in the curriculum. Designed as a Computer Science Applied Computing elective, not as a replacement for any specific required course. Course topic and syllabus must be approved by Department Head.

313 Three Credits

NETWORK ADMINISTRATION (SO)

PREREQUISITE: CSC 311

This is an intermediate-level course for students who are interested in Networking. This course is designed to provide students with essential knowledge and skills that an effective network administrator must possess. It provides an overview of the essential TCP/IP protocols, and discusses how to properly configure and manage the network services based on these protocols (including DNS, DHCP, AD/LDAP directory services, print and file servers, NFS/NIS, and routing services). It also has a hands-on lab component for students to learn how to setup, configure, troubleshoot, and administer these network services in both Windows and Linux/Solaris environments.

314 Three Credits

ADVANCED INTERNET PROGRAMMING (SI)

PREREQUISITES: CSC 195 and CSC 260

A second Internet programming course concentrating on advanced Internet application development. Creation of relatively sophisticated web pages and application that allow interactions between web page users and the web page as well as network programming, JSP, JDBC, XML processing are the main focus of the course. Different Internet programming language and tools will also be included.

360 Three Credits

INTERFACE DESIGN AND IMPLEMENTATION (SO)

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 Three Credits

SURVEY OF PROGRAMMING LANGUAGES (SO)

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 Three Credits

THEORY OF COMPUTATION (SI)

PREREQUISITE: CSC 270

Introduction to sequential machines, finite state automata, formal languages and turning machines, computable, and non-computable functions.

372 Three Credits

DATA STRUCTURES (EE)

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.

380 Three Credits

SOFTWARE ENGINEERING (SO)

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.

411 Three Credits

WEB SERVER ADMINISTRATION (SI)

PREREQUISITE: CSC 313

An introductory course providing individuals with the core skills needed to meet the demands of the

Web development and Internet community. The three key skill areas focused in this course are Web management, content management, and technical management.

420/ 521 Three Credits

DATA BASE PRINCIPLES AND DESIGN (SO)

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 Three Credits

DATABASE IMPLEMENTATION (FO)

PREREQUISITES: CSC 372, CSC 292, CSC 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 Three Credits

DATA COMMUNICATIONS (FO)

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 Three Credits

WIRELESS DATA NETWORKING (FO)

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 Three Credits

COMPUTER SECURITY I (FO)

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 Three Credits

COMPUTER NETWORK DEFENSE (FO)

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 Three Credits
ELECTRONIC PUBLISHING (SI)

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 Three Credits
OPERATING SYSTEMS (FO)

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.

466/ 566, 467/ 567 Three Credits
ADVANCED COMPUTER TOPICS I and II (SI)

PREREQUISITE: Consent of the Instructor

Elective course for Computer Science.

468 Three Credits
COMPUTER ARCHITECTURE (EE)

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 Three Credits
ARTIFICIAL INTELLIGENCE (FO)

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 Three Credits
ADVANCED COMPUTER TOPICS III and IV (SI)

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 Three Credits
COMPUTER GRAPHICS (SO)

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 Three Credits
INDEPENDENT STUDY (E)

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 (EE)

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 Three Credits
COOPERATIVE EDUCATION (ACTUAL CO-OP ASSIGNMENT) (E)

Required for all students who have secured a cooperative work assignment through the Career Services/Cooperative Education office, their department, or on their own. The student must register for this course and go to the Career Services/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 Three Credits
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 go 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 extralegal, 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 sociopsychological 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)

150 Three Credits
ENGINEERING GRAPHICS (EE)

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. A fresh perspective on using AutoCAD is also introduced.

151 Three Credits
INTRODUCTION TO CAD (EE)

PREREQUISITE: TMD 150

Awareness of computers in engineering design and problem solving, with emphasis on AutoCAD program on microcomputers for engineering graphics at a beginning level of design. Hands-on sessions using personal computers will provide practice to reinforce the concepts and to provide practical experience.

225 Three Credits
MECHANICS I: STATICS

PREREQUISITE: MTH 153

Develops analytic abilities of various types of force acting on a rigid body at rest with emphasis on systems using algebra and trigonometry, including vectors, couples, equilibrium, centroids, moments, friction and moments of inertia.

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, to produce engineering drawing 2D architecture and mechanical drawings. Special emphasis is placed on 3-D techniques, solid modeling, and rendering. Hands-on sessions using personal computers will provide practice to reinforce the concepts and to provide practical experience.

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

Study of behavior of materials when subjected to different loadings and constraints, and the prediction of material behavior in various applications. It covers stress, strain, mechanical properties of materials, axial torsion, bending and shears. Beams, shafts and columns are studied.

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.) It will acquaint students with techniques of testing materials, making accurate observations of phenomena and correct interpretations of results.

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.

DRAMA (DRM)

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.

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.

EDUCATION (EDU)

201 Three Credits

FOUNDATIONS OF EDUCATION (EE)

This course concentrates on issues facing American education today. It is an interdisciplinary attempt (incorporating the historical, political, economic, legal, social, philosophical, and curricular foundations) to provide pre-service teachers with a clear understanding of the profession and the issues and controversies confronting American education today. Attention is also given to, 1) the legal status of teachers and students, including federal and state laws and regulations, school as an organization/culture, and contemporary issues in education, 2) the ability of students to construct and interpret valid assessments using a variety of formats in order to measure student attainment of

essential skills in a standards-based environment, and 3) the ability of students to analyze assessment data to make decisions about how to improve instruction and student performance. The primary focus is to prepare reflective teachers who will be able to make informed decisions to improve and enhance the learning environment for children. Focus is also placed on class discussion, outside readings, research and problem-solving strategies. The course is designed for any student who is interested in teaching.

381 Three Credits
CLASSROOM AND BEHAVIOR MANAGEMENT (EE)

PREREQUISITE: Pass Praxis I/ SAT/ ACT

Skills in this course shall contribute to an understanding and application of classroom and behavior management techniques and individual interventions, including techniques that promote emotional well-being and teach and maintain behavioral conduct and skills consistent with norms, standards, and rules of the educational environment. This area shall address diverse approaches based upon behavioral, cognitive, affective, social and ecological theory and practice.

486 Three Credits
HUMAN GROWTH AND DEVELOPMENT (Birth through Adolescence) (EE)

In this course students will be able to contribute and gain an understanding of the physical, social, emotional, speech and language, and intellectual development of children and the ability to use this understanding in guiding learning experiences. The interaction of children with individual difference - economic, social, racial, ethnic, religious, physical, and mental - should be incorporated to include skills contributing to an understanding of developmental disabilities and developmental issues related to but not limited to attention deficit disorders, gifted education including the use of multiple criteria to identify gifted students, substance abuse, child abuse and family disruptions.

ELECTRICAL AND ELECTRONICS ENGINEERING (EEE)

100 Three Credits

INTRODUCTION TO ENGINEERING (FO)

The Introduction to Engineering course is an activity-based course with a number of life skills exercises, and hands-on activities integrated into the lectures. The intent of this course is to familiarize students with many of the skills that engineers must perform on a daily basis in the workplace with emphasis on engineering ethics and introductory concepts in electronics and optical engineering.

101 Two Credits
ENGINEERING PROBLEM SOLVING (SO)

This course will provide an overview of the salient math topics most heavily used in the core sophomore-level engineering courses.

201 Three Credits
ELECTRICAL NETWORK THEORY I (FO)

PREREQUISITE: PHY 161, PHY 161L, MTH 251

COREQUISITE: EEE 201L

This course is an introduction to the basic principles on DC electrical circuit theory for electronics engineering and technology majors. The focus of the course is the study of methods for analyzing resistive circuits. Circuits incorporating independent and dependent energy sources are studied. Methods covered include: Ohm's Law, Kirchhoff's Laws, nodal analysis, loop analysis, superposition, Thevenin's Theorem, Norton's Theorem, and the maximum power transfer principle. Computer software tools such as MATLAB and MultiSim will be introduced.

201L One Credit
ELECTRICAL NETWORK THEORY I LABORATORY (FO)

COREQUISITE: EEE 201

This course provides hands-on experience in constructing, troubleshooting, and testing simple DC electrical circuits. The student experiences circuit theory in action by performing a series of increasingly difficult experiments. Basic instruments, such as the digital multimeter, DC power supply, and laboratory breadboard are introduced and utilized.

202 Three Credits
ELECTRICAL NETWORK THEORY II (SO)

PREREQUISITE: EEE 201, EEE 201L

COREQUISITE: EEE 202L

This is the second course in electrical circuit theory for electronics engineering and technology majors. The course provides the student with an understanding of advanced electrical circuit concepts. The following topics are studied: capacitors, inductors, first and second order transient circuits, AC circuit analysis, and power analysis.

202L One Credit
ELECTRICAL NETWORK THEORY II LABORATORY (SO)

COREQUISITE: EEE 202

This is the laboratory that accompanies EEE 202 Electrical Networks Theory II. This course provides the student with hands-on experience with advanced electrical circuit components, measurement techniques, and data collection. The student will construct advanced electrical circuits that illustrate principles covered in the lecture. To successfully complete the course, the student will be required to perform a series of experiments of increasing difficulty. A formal report is required for each experiment.

203 Three Credits
ELECTRONIC PRINCIPLES (SO)

PREREQUISITE: EEE 201

This is the second electronics engineering course for Optical Engineering majors. This course provides the student with advanced concepts of circuit theory as well as an introduction to electronic devices. The topics covered include first and second order transient circuits, AC circuit analysis, diodes, transistors, and operational amplifier. Computer modeling of electronic circuits will be introduced.

211 Three Credits
MATERIALS SCIENCE AND ENGINEERING (SO)

PREREQUISITE: CHM 221 or CHM 210

This course introduces students in the optical and electronics engineering programs to concepts that are necessary to understand important ideas in materials science and engineering. Also, this course relates these concepts to engineering design and manufacturing of electronic and photonic devices.

231 Three Credits

DIGITAL LOGIC DESIGN (SO)

PREREQUISITES: EEE 201, EEE 201L

This course involves the study of number systems, binary arithmetic and codes, Boolean algebraic simplification, Karnaugh Maps, and flip-flops. The design and analysis of synchronous and asynchronous sequential circuits, counters, and shift registers are also studied.

301 Three Credits ELECTRONIC DEVICES (FO)

PREREQUISITE: EEE 202, EEE 202L

COREQUISITE: EEE 301L

This course provides an 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 electronic circuits using MultiSim or an equivalent software will be implemented in this course.

301L One Credit ELECTRONIC DEVICES LABORATORY (FO)

COREQUISITE: EEE 301

This is the laboratory that accompanies EEE 301 Engineering Electronics I. The goal of this course is to provide the student hands-on experience with electronic components such as BJT'S, FET'S and diodes. The student will design and construct electronic circuits that will illustrate principles covered in the lecture. This course includes practical examinations, laboratory experiments, and report preparation.

302 Three Credits MICROELECTRONICS (SO)

PREREQUISITE: EEE 301, EEE 301L

COREQUISITE: EEN 302L

This is the second course in electronics for electronics engineering and technology majors. The goal of this course is to provide the student with an understanding of advanced electronics concepts. The following topics are covered: multi-stage amplifiers, frequency response using Bode plots, feedback, oscillators, and active filters. To successfully complete this course, the student must demonstrate a working knowledge of the concepts covered through

assignments and written examinations.

302L One Credit MICROELECTRONICS LABORATORY (SO)

COREQUISITE: EEE 302

This is the laboratory that accompanies EEE 302 Engineering Electronics II. The goal of this course is to provide the student additional hands-on experience with more advanced electronic circuits. The student will construct advanced electronics circuits that will illustrate principles covered in the lecture. To successfully complete this course, the student will be required to perform a series of experiments of increasing difficulty. A formal report is required to be turned in one (1) week after performing an experiment.

305 Three Credits SIGNALS and SYSTEMS (FO)

PREREQUISITES: EEE 202; EEE 202L, MTH 372

This course is an 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 are also studied. A design project is required.

311 Three Credits ENGINEERING ECONOMICS (SO)

PREREQUISITE: MTH 251, Junior/Senior Standing

This course provides an introduction to economic principles and techniques used in making decisions about the acquisition and retirement of capital goods by government and industry. Special emphasis is given to 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 is covered. The class will also include entrepreneurial topics, such as business plans, sources of capital and marketing strategies.

321 Three Credits ELECTROMAGNETIC FIELD THEORY (SO)

PREREQUISITES: PHY 161, PHY 161L, MTH 372

This course involves the study of static and propagating electromagnetic fields, a review of Maxwell's equations, propagation of EM-fields in dielectric materials, transmission theory.

331 Three Credits MICROPROCESSORS (FO)

PREREQUISITES: EEE 231

COREQUISITE: EEE 331L

This course is a study of microprocessors and microcontrollers in relation to computers, including the description of the architecture of a microprocessor. Buses, memory mapping, registers, flags, interrupts, instruction sets, addressing modes, Macros, timing diagrams, supporting chips, and interfacing are also covered.

331L One Credit MICROPROCESSORS LABORATORY (FO)

COREQUISITE: EEE 331

Procedures for reliable digital microcomputer design, understanding manufacturers' specifications, use of special test equipment, machine representation of numbers, assembler basics, experiments to assemble, debug, and interface with peripherals are studied in this course.

333 Three Credits DIGITAL INTEGRATED CIRCUITS (SO)

PREREQUISITES: EEE 331

COREQUISITE: EEE 302, EEE 302L, EEE 333L

This course involves fundamentals of CMOS VLSI design and analysis. Steps involved in semiconductor device construction, operation, use in digital circuits and logical flow from systems perspective will be studied.

333L One Credit DIGITAL INTEGRATED CIRCUITS LABORATORY (SO)

PREREQUISITES: EEE 331, EEE 331L

COREQUISITES: EEE 302, EEE 333

This course is intended to augment the concepts taught in EEE 333 through hands-on experiments. Characteristics of the discrete digital integrated circuits are explored through design of combinational and sequential circuits. Students will design integrated circuits using VLSI simulation software.

350 Three Credits SCIENTIFIC INSTRUMENTATION (SO)

PREREQUISITES: EEE 102 or CSC 170; EEE 201 or equivalent

This course covers integrated hardware and software applications to communicate and control instruments. Communication interface standards such as IEEE-GPIB and RS232, and use of data acquisition (DAQ) boards will be studied. Timing issues, real-time data acquisition and instrument control will also be covered.

351 Three Credits COMMUNICATIONS ENGINEERING (SO)

PREREQUISITE: EEE 301, EEE 301L, EEE 305

This course consists of the study of the following concepts: amplitude, frequency, phase, frequency modulation, phase modulation, sampling, pulse modification, time division multiplexing, detection, frequency mixing, filters, receivers, transmitters, and noise analysis.

371 Three Credits CONTROL SYSTEMS (FO)

PREREQUISITES: EEE 302, 302L, 305

Introduction to control systems; mathematical models, feedback control systems characteristics and stability, root locus, frequency responses, stability in the frequency domain analysis.

401 One Credit ELECTRONICS ENGINEERING SEMINAR (FO)

PREREQUISITE: Senior Standing

This course provides an introduction to various aspects of engineering practice, engineering ethics, and career opportunities through invited lectures.

402 Three Credits POWER ELECTRONICS

This course is being added to the curriculum to aid in the enhancement of the students' knowledge of electronics required for various power delivery systems.

431 Three Credits MICROCONTROLLERS

This course is being added to the curriculum to replace EEE 331 Microprocessor and to ensure our program is aligned with other

Electrical and Electronics Engineering Programs.

451 Three Credits INTRODUCTION TO WIRELESS COMMUNICATIONS (FO)

PREREQUISITE: EEE 351

This course will introduce wireless communication technologies. Topics covered include: transmission fundamentals, signal encoding techniques, coding and error control, cellular wireless networks, Mobile IP and wireless access protocols.

462 Three Credits SEMICONDUCTOR PROCESSING TECHNOLOGY (FO)

PREREQUISITES: EEE 301 or EEE 203; EEE 211; or Permission of instructor

This course presents the fundamentals of semiconductor processing technology, including semiconductor substrates, microfabrication techniques, and process integration. Lithography, oxidation, diffusion, ion implantation, methods of film deposition and etching, metal interconnections, measurement techniques and packaging will be discussed.

463 Three Credits SEMICONDUCTOR THEORY AND DEVICES (SO)

PREREQUISITE: EEE 211, EEE 301 or Equivalent

This course presents fundamental semiconductor devices physics and the operation principles of semiconductor devices. It focuses on the operation of devices such as diodes, field effect transistors, and bipolar junction transistors. It also covers optoelectronic devices such as photodetectors, light-emitting diodes, and solar cells.

470 Three Credits INTRODUCTION TO GAME DESIGN AND DEVELOPMENT

This course introduces students to game design and development concepts.

471 Three Credits 3D GAME PROGRAMMING

This is a project-oriented course on 3D Game Programming. Students will work in teams to design, implement and test a three-dimensional game with interactivity, game state diagrams, animation, sound, and constraints.

475 Three Credits DESIGN OF ROBOTIC SYSTEMS

This course will focus on core principles in the design and development of robotic systems. The course will build upon principles in electrical engineering, mechanics, and computer science.

476 Three Credits RENEWABLE BIO ENERGY

This course will cover the processes for recovery, productions, and usage of bio fuels and bio products generated from these three types of biomasses to ultimately produce heat, electricity, transportation fuel, chemicals, and materials.

481 Three Credits BIOMEDICAL ENGINEERING MICRO-DEVICES AND SYSTEMS (SO)

PREREQUISITE OR COREQUISITE: PHY160 and CHM 210 or 221; Junior or Senior level standing; or Permission of Instructor.

This course introduces the concepts of biomedical engineering devices, especially for sensing and modulation applications. The course covers electronic or optical transduction techniques for applications such as neurochemicals, biopotentials and cellular ions. The course also includes a laboratory component for the design and fabrication of microscale biomedical sensors.

482 Three Credits BIOELECTRICS

This course covers the important concepts of bioelectronics, bioelectric system modeling and diagnosis. Although emphasis will be given to cardiovascular system, students will be able to apply the principles of bioelectricity to any bioelectrical system.

498 Three Credits SENIOR PROJECT I (FO)

PREREQUISITE: EEE 302, EEE 302L

In this course students plan and design capstone engineering projects incorporating realistic and diverse constraints of technical, budgetary, and social aspects. Both written reports and oral presentations are required.

499 Three Credits SENIOR PROJECT II (SO)

PREREQUISITE: EEE 498

This course is the implementation phase of capstone projects designed in EEN 498. Demonstration of the final working project is required along with a written report and oral presentation.

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

PREREQUISITES: ELT 113, 113L

Study of the characteristics, capabilities, limitations, and application of such basic electronic instruments as the Volt-ohm Millimeter, the digital voltmeter, D-Arsonval meter movement, the general oscilloscope, the audio generator, the resistance bridge, the tube tester, and others.

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.

220 Three Credits

DIGITAL ELECTRONICS (SO)

PREREQUISITES: ELT 212, 212L

COREQUISITE: ELT 220L

Study of digital devices and circuits, logic devices, integrated circuits, microprocessor circuits, binary, octal, and hexadecimal.

220L One Credit

DIGITAL ELECTRONICS LAB (SO)

PREREQUISITES: ELT 212, 212L

COREQUISITE: ELT 220

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.

314 Three Credits

INSTRUMENTATION MEASUREMENT AND CONTROL

PREREQUISITES: ELT 220, 220L, 313

Study of characteristics and limitations of instrumentation, measurement and control systems. Emphasis is on measurement systems, including transducers, signal conditioners, and telemetry systems. Various types of control systems are also addressed.

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 (FO)

PREREQUISITES: ELT 213, 213L

COREQUISITE: ELT 315

This is the lab component of ELT 315. Emphasis is on measurement and analysis of communications signals and evaluation of communication equipment.

413 Three Credits

DIGITAL COMMUNICATIONS SYSTEMS (SO)

PREREQUISITES: ELT 310, 315

Theory of communications systems utilizing digital signals. Includes coding, multiplexing, digital

modulation, information codes, and error detection codes.

413L One Credit
DIGITAL COMMUNICATIONS
SYSTEMS LABORATORY (FO)

COREQUISITE: ELT 413

This course is the laboratory component for ELT 413 lecture. Students will design, build, and troubleshoot such circuits and systems as modulators, transceivers, line coders, multiplexers, fiber optics and data acquisition systems.

416 Three Credits
WIRELESS COMMUNICATIONS
SYSTEMS (SO)

PREREQUISITES: ELT 413, ELT 413L

COREQUISITE: ELT 416L

Theory of communications systems utilizing digital signals. Includes coding, multiplexing, digital modulation, information codes, and error detection codes.

416L One Credit
WIRELESS COMMUNICATIONS
SYSTEMS LABORATORY (SO)

PREREQUISITES: ELT 413, ELT 413L

COREQUISITE: ELT 416

This course is the laboratory component for ELT 416 lecture. The student will perform laboratory exercises.

499 Three Credits
SENIOR PROJECT

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

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 (EE)**

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 preschool and elementary (PreK-3) settings. Lectures, discussions, demonstrations, films, field trips, observation and participation in PreK-3 preschool and elementary school classrooms are provided. This class is conducted as a career decision seminar. (see Handbook: <http://www.nsu.edu/schools/education/handbk1.pdf>)

232 Three Credits
**CREATIVE ACTIVITIES FOR
CHILDREN (E)**

This is a lecture and experientially based course that focuses on the development of creative abilities ages three to six. Emphasis is placed on planning teaching and learning experiences in art, music, movement, nutrition, health, dramatic play, social/emotional development and computer applications.

233 Three Credits
**CRITICAL THINKING AND
ASSESSMENT SKILLS (EE)**

This course is designed to increase the test taking skills of students who are education majors in preparation for the PRAXIS, Pre-Professional Skills Test (PPST) and the EWC. The course is also designed to improve reading, writing, mathematics, and critical thinking skills. Pre-tests scores will be calculated to assist students in assessment of their skills levels. Minimum state levels are: reading 178, writing 176, and mathematics 178.

324 Three Credits
**CHILDREN'S LITERATURE FOR
EARLY CHILDHOOD EDUCATION
(EE)**

The scope of this course includes the study of children's literature and an appraisal of its value in meeting the language, cognitive, social/emotional, recreational and aesthetic needs of pre-school and primary grade school children.

Emphasis will be placed on applying literature selective criteria, methodology and implementation in educational and home settings. Practical experiences will be provided that allow candidates opportunities to observe the implementation of children literature programs in educational settings.

***360 Three Credits**
**CURRICULUM AND
INSTRUCTION FOR PRIMARY
GRADES (Pre-K –3rd Grade) (EE)**

This course is designed to prepare teachers to implement an effective curriculum for children in grades preK-3. As a prerequisite, you will need to have adequate content knowledge to teach mathematics, science, reading, social studies, physical education, health and technology. The course will assist you in the development of a broad-based educational philosophy, extensive knowledge of human growth and development, practical experience with children, and the ability to digest and interpret a body of research about teaching and learning, creating learning communities, differentiating instruction for all learners, managing the classroom, assessment, the effective use of technology, and working with colleagues and parents. PRAXIS Principles of Learning and INTASC Standards will be covered. Ultimately, the goal is for you to use and apply theoretical and research knowledge to improve learning at the early childhood level.

362 Three Credits
**METHODS AND MATERIALS OF
INSTRUCTION IN MATH FOR
YOUNG CHILDREN (FO)**

Methods and techniques of teaching mathematics to early childhood school children include preparation and practice with materials in classroom situations. This course is designed especially to meet the needs of elementary school teachers in grades Pre-K-3.

370 Three Credits
**ANALYZING BEHAVIOR OF
CHILDREN (E)**

This is a lecture and experientially based course that focuses on observation methods as it applies to young children. Both formal and informal assessment methodology and strategies to diagnose and assess young children's learning and development will be used to create developmentally appropriate experiences. Candidates must complete twenty hours of observation and participation.

375 Three Credits

CHILDREN'S DRAMA (E)

PREREQUISITES: Completion of required 100 and 200 level courses.

Study of theories and methods of children's drama and creative development with a concentration on literacy and educational goals. Survey of literature and production techniques. Practical work in a production of a Children's Drama with an emphasis on the pre-school years.

420 Three Credits

PARENT EDUCATION (E)

This course will focus on strategies for helping child care personnel and parents work together more effectively. This course will identify how the home, childcare settings/schools, and community interact and provide a forum for discussion of ways in which these settings interact to affect children's lives. Candidates are required to spend 20 hours of observation and participation.

450 Three Credits

TEACHING LITERACY IN THE ELEMENTARY SCHOOL

This course is designed to teach pre-service teacher candidates how to prepare children for a lifetime of literacy appreciation and how to diagnose, correct, and remediate mild to moderately severe reading difficulties among children in grades kindergarten through six. Emphasis will be placed on developing students' competencies in teaching oral communication, phonemic awareness, phonics, fluency, vocabulary, text comprehension, and literature appreciation. Teacher candidates will also be provided with knowledge of ways to utilize various types of media to support literacy in classrooms, including technological media instruction.

460 Three Credits

ADMINISTRATION OF CHILD AND FAMILY PROGRAMS (E)

The purpose of this course is to expose you to the administrative aspects of early childhood education. You will be introduced to a range of administrative demands in different types of early childhood centers as well as maintaining and developing ongoing programs. Twenty observation hours will be required for this class.

*461 Three Credits

CURRICULUM AND INSTRUCTION FOR EARLY SCHOOL (Grades 4-6) (EE)

Prerequisites: EED 461

Curriculum, instructional processes, learning environments and the professional responsibilities of teachers for linking knowledge of subject fields, pedagogy, classroom management and insights will be the thrust of this course. It will focus on fourth, fifth, and sixth grade curriculum and will also include three major components: Goal, setting, content, and methodology. Candidates are required spend twenty scheduled hours during the semester in a fourth, fifth or sixth grade classroom. They will plan, design, and implement activities. Videotaping of activities/lessons, demonstrations, and classroom simulations will be required.

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 (EE)

The objective of this course is to provide you, the novice teacher, the knowledge for social studies teaching and learning in the elementary school. Though not exclusive, topics covered will include the what and why of social studies; assessing student learning; planning units, lessons, and activities; effective instructional strategies; and knowledge of social studies content. The course will include a focus on technology integration, the Virginia Standards of Learning, the Virginia teaching standards and the standards proposed by the Association of Childhood Education International, the National Council for the Accreditation of Teacher Education, and the National Council for Social Studies.

490 Three Credits

DIAGNOSTIC READING (EE)

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)

This program is designed to provide a period of supervised experiences during which the prospective teacher of a preschool child, child care, or a Head Start setting takes gradual responsibility for a group of pupils for a definite period of time. The teacher is observed by a university supervisor for a minimum of three times during the experience. This sixteen week practicum experience including a one week observation is a mandatory requirement of the program.

499 Twelve Credits

DIRECTED TEACHING AND SEMINAR (EE)

This program is designed to provide two supervised experiences at two levels, PK-3 and 4-6, during which the prospective teacher of grades PK-6 takes gradual responsibility for a group of pupils for a specified period of time. The teacher is observed by a university supervisor a minimum of three times during each experience. This sixteen week practicum experience including a one week observation is a mandatory requirement of the program.

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

ELEMENTARY SPECIAL EDUCATION (ECS)

300 Three Credits

INTRODUCTION TO ELEMENTARY SPECIAL EDUCATION (E)

This course is a lecture based course in which students will be expected to engage in readings, class discussions and participate in activities both in class and on

Blackboard. The course will cover the history, philosophy, legislation, and practices of early childhood special education. The purpose of this course is to provide students with an overview of the field's history, current trends, and future directions. Students will also have opportunities to form their own philosophies of early intervention. The course will encompass (1) the examination of federal legislation and policies related to early childhood education, (2) models of service delivery in early childhood special education, (3) social issues and societal events; including bias (e.g., cultural, linguistic) in curricula that affect early childhood special education programming (4) handicapping conditions and conditions that put children at-risk, (5) the role of the family and community supports, (6) inclusion, (7) transition issues, and (8) outcome and efficacy of early childhood special education, including adaptation of curricula for children and families with diverse socioeconomic, language, ethnic, and religious backgrounds, (10 hours) will be required for this class.

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 G.P.A. 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. **MUST BE PASSED WITH A "C" OR ABOVE.**

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. **MUST BE PASSED WITH A "C" OR ABOVE.**

108 Three Credits ANALYTICAL REASONING, WRITING AND COMPREHENSION I (SI)

PREREQUISITE: ENG 101 and ENG 102

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)

Orienteation 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 (EE)

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 (FO)

Structure of the English language and the principles underlying both sentence construction and standard English usage, establishing the connection between grammar and writing.

214 Three Credits INTRODUCTION TO CREATIVE WRITING (SI)

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 (SI)

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 (EE)

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 (EE)

Discipline-specific course designed to provide writing experiences across the curriculum.

304 Three Credits ELECTRONIC RESEARCH AND TECHNICAL WRITING (SI)

PREREQUISITE: Junior Standing or Permission of Instructor

Provides experience in electronic research and technical writing.

Students will be introduced to electronic research via the internet and databases.

**305 Three Credits
MULTIMEDIA WRITING (SI)**

PREREQUISITE: Junior Standing or Permission of Instructor

Provides experience in organizational patterns, navigation systems, and internet etiquette and teaches students basic skills for creating hypertext and hypermedia documents.

**306 Three Credits
INTRODUCTION TO LITERARY CRITICISM (FO)**

PREREQUISITE: Junior Standing or Permission of Instructor

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 (SI)**

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 (SI)**

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 (SI)**

Reading selections from the Old and New Testaments and the Apocrypha with emphasis on their literary aspects.

**318 Three Credits
WRITING POETRY II (SI)
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 (SI)**

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 (SI)**

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)**

Survey of American Literature from the Civil War to the present.

**350 Three Credits
SEMINAR IN LITERARY ANALYSIS AND INTERPRETATION (SO)**

PREREQUISITES: ALL 200 LEVEL ENGLISH COURSES AND 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 (SI)**

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 (SI)**

Development of African-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.

**400/ 500 Three Credits
ADVANCED PLACEMENT ENGLISH IN THE HIGH SCHOOL (SI)**

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.

**404 Three Credits
CAREER-FOCUSED TECHNICAL WRITING (SI)**

PREREQUISITES: Junior Standing or Permission of Instructor

This course provides technical writing experiences that are career focused. Readings and discussions are based on career goals, emphasizing web-based compositions. This course will prepare students to write effectively in their respective career fields.

**405 Three Credits
PROFESSIONAL PRESENTATION (SI)**

PREREQUISITES: Junior Standing or Permission of Instructor

This course provides instruction in the development of workplace documents using audience analysis, visual communication, research, organization, and complex technical manuscripts.

406 Three Credits

DIGITAL WRITING AND CORPORATE PUBLICATIONS (SI)

PREREQUISITES: Junior Standing or Permission of Instructor

This course focuses on digital writing, including proposals, communication plans, training documents, program and operational documents, white papers, and collateral workplace publications.

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

CHAUCEER (SI)

Designed to provide a general acquaintance with *The Canterbury Tales*, *Troilus and Criseyde* and some of Chaucer's minor poems.

413 Three Credits

SHAKESPEARE (FO)

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 Three Credits

MILTON (SI)

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 Three Credits

CONTEMPORARY AMERICAN ENGLISH GRAMMAR (SO)

Survey of the function of American English grammar in modern communication with emphasis on usage, dialectology, stylistics, and aesthetics.

420/ 520 Three credits

BLACK ENGLISH, DIALECTS, AND LINGUISTIC UNIVERSALS (SI)

PREREQUISITE: Senior or Graduate level

Introduction to 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 Three Credits

EIGHTEENTH CENTURY ENGLISH LITERATURE (SI)

Introduction to Addison, Steele, Dryden, Swift, Pope, Johnson, and their contemporaries.

430 Three Credits

ROMANTIC WRITERS (SO)

Critical study of the development of the Romantic Movement. Special emphasis upon Wordsworth, Coleridge, Byron, Shelley, and Keats.

431 Three Credits

STUDIES IN THE NOVEL (SI)

Study of selected novels of the nineteenth and twentieth centuries from the Continent, England, and the Americas.

432 Three Credits

AFRICAN AND AFRICAN-AMERICAN NOVEL (SI)

PREREQUISITES: ENG 383 or Permission of Instructor

Detailed study of selected African and African-American novelists and their works.

433 Three Credits

AFRICAN AND AFRICAN-AMERICAN BIOGRAPHY AND AUTOBIOGRAPHY (SI)

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 Three Credits

VICTORIAN LITERATURE (SI)

Study of representative British writers from 1837-1901.

440 Three Credits

SEMINAR IN AFRICAN AND AFRICAN-AMERICAN LITERATURE (SI)

PREREQUISITES: ENG 383 or Permission of Instructor

Study of selected works and authors in the African and African-American tradition.

449/549 Three Credits

TEACHING OF COMPOSITION (FO)

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 Three Credits

RESEARCH SEMINAR AND SENIOR THESIS (SO)

PREREQUISITES: ALL 200 LEVEL ENGLISH COURSES, ENG 306, AND ENG 350

Independent research on a topic selected by the student, approved by the departmental advisor and completed under the guidance of the advisor.

452 Three Credits

LITERATURE FOR CHILDREN (FO)

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 Three Credits

WOMEN'S LITERATURE AND CONTEMPORARY ISSUES (SI)

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 Three Credits

YOUNG ADULT LITERATURE (SO)

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 Three Credits

LITERATURE AND POPULAR CULTURE (SI)

Introduction to the systematic study of popular media, focusing on the development of selected print, film, and video genres.

456 Three Credits

WOMEN'S STUDIES: MYTHS AND IMAGES (SO)

Exploration of the universal myths that promote certain images of women that relate to their biological function in modern fiction written by women.

457 Three Credits

MULTIETHNIC FICTION (SI)

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 Three Credits

SOUTHERN BLACK FEMALE AESTHETIC (SI)

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 Three Credits

INTERNATIONAL WOMEN'S LITERATURE (SI)

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 Three Credits

ASSESSMENT AND EVALUATION OF WRITING (SI)

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.

465/565 One, Two, Three Credits
SPECIAL TOPICS IN LITERATURE AND LANGUAGE (SI)

Engaging in modern literary or linguistic topics by using a variety of perspectives, disciplines, and related themes.

475/575 Three Credits

HISTORY OF RHETORIC (SI)

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 Three Credits

AMERICAN FOLKLORE AND LITERATURE (SI)

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.

491 Three Credits

INTERNSHIP (SI)

PREREQUISITE: Junior Standing and Permission of Instructor.

This course offers students the opportunity to apply their skills and knowledge in actual work situations under the supervision of a professional in the field and to explore career options or to engage in sustained scholarly research on a selected topic under the guidance of a major professor.

ENTREPRENEURIAL STUDIES (ENT)

364 Three Credits

MANAGING THE FAMILY BUSINESS (SI)

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 Three Credits

NEW VENTURE FINANCE (FO)

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 capital, investment banks, government, and commercial banks. Study of how entrepreneurs identify and commit the necessary resources to create and fund ventures.

387 Three Credits

INTRODUCTION TO ENTREPRENEURSHIP (E)

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 Three Credits

SMALL BUSINESS MANAGEMENT (FO)

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 Three Credits

CONTEMPORARY TOPICS IN ENTREPRENEURSHIP

PREREQUISITES: ENT 387; Senior Standing

Study of the latest concepts, theories, and applications in all aspects of entrepreneurship and small business management.

476 Three Credits

FRANCHISING (SI)

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 Three Credits

MANAGING GROWING VENTURES (SI)

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 Three Credits

CREATIVITY INNOVATION AND CHANGE MANAGEMENT (SI)

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 Three Credits

ENTREPRENEURSHIP FIELD STUDIES (SI)

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 Three Credits

INTERNATIONAL ENTREPRENEURSHIP (SI)

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 Three Credits

INTRODUCTION TO EXERCISE SCIENCE (FO)

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 Three Credits

CARE AND PREVENTION OF ATHLETIC INJURIES (SO)

COREQUISITES: 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, anthropology, 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 and 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.

380 Three Credits

STRESS MANAGEMENT

This course offers a comprehensive approach to stress management. It will investigate and examine factors that causes stress within our lives and how the stressors can be managed and the use of various relaxation techniques are incorporated.

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 E and F Six Credits
Each

CLINICAL INTERNSHIP IN EXERCISE SCIENCE (EE)

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 (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

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 and 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 Three Credits

INVESTMENTS (EE)

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 Three Credits

FINANCIAL INSTITUTIONS (EE)

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 Three Credits

ENTREPRENEURIAL FINANCE (SI)

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 Three Credits

PRINCIPLES OF REAL ESTATE (FO)

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 Three Credits

INTRODUCTION TO PERSONAL FINANCIAL PLANNING (EE)

PREREQUISITES: ECN 211, 212

Study of professional manuals in personal financial planning.

474 Three Credits

INTERMEDIATE FINANCIAL MANAGEMENT (EE)

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

PREREQUISITES: FNC 363, 395

Study of professional manuals in personal financial planning.

**488 Three Credits
INTERNATIONAL FINANCE (EE)**

PREREQUISITES: ECN 212; FNC 360; Junior Standing

Analysis of the international monetary system and multi-national 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 Three Credits
PORTFOLIO MANAGEMENT**

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 Three Credits
CASES IN FINANCIAL
MANAGEMENT (EE)**

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 Three Credits
BASIC DESIGN (FO)**

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 Three Credits
BASIC DESIGN II (SO)**

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 Three Credits

BASIC DESIGN III (EE)

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 Three Credits
DRAWING (FO)**

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 Three Credits
DRAWING (SO)**

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 Three Credits
CERAMICS (FO)**

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 Three Credits
CERAMICS (SO)**

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 Three Credits
LETTERING (FO)**

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 Three Credits
LETTERING (SO)**

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.

**201 Three Credits
BASIC ART APPRECIATION (E)**

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 Three Credits
FASHION DRAWING (FO)**

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 Three Credits
CRAFT DESIGN (SI)**

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 Three Credits
CRAFT DESIGN (SI)**

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 Three Credits
LIFE DRAWING (FO)**

PREREQUISITES: FIA 120 and 121

Drawing from live models in an attempt to familiarize the student with various approaches to the figure.

**221 Three Credits
LIFE DRAWING (FO)**

PREREQUISITES: FIA 120, 121, and 220

Drawing from live models in an attempt to familiarize the student with various approaches to the figure.

234 Three Credits

PAINTING (FO)

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 Three Credits

PAINTING (SO)

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 Three Credits

SCULPTURE (FO)

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 Three Credits

SCULPTURE (SO)

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 Three Credits

INTRODUCTION TO ANIMATION (FO)

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 Three Credits

BASIC ANIMATION (SO)

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 Three Credits

INTRODUCTION TO GRAPHIC DESIGN (FO)

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 Three Credits

PRINTMAKING WORKSHOP (FO)

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 Three Credits

PRINTMAKING WORKSHOP (SO)

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 APPLICATIONS IN THE ARTS (E)

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.

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 (FO)

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 (SO)

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, offloom 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.

380 Three Credits COMPUTER IMAGING (E)

PREREQUISITE: FIA 280

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.

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

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 19th-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 NUTRITION (FSN)

101 Two Credits
INTRODUCTION TO DIETETICS AND FOOD SCIENCE

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 Credit
PROFESSIONAL DEVELOPMENT AND EXPERIENCES SEMINAR

PREREQUISITE: FSN 101, 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 work place; 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

This course will emphasize the principles of nutrition, the six basic nutrients and related health issues. The impact of nutrition on the body systems, wellness, and disease states will be explored. Valuable insights will be gained on various eating behaviors, disease interventions, recommended dietary guidelines and tools, food safety and dietary supplements. The influences of socioeconomic, cultural, and psychological factors that determine food and nutrition behavior will also be presented.

160 Three Credits
FOOD COST CONTROL

PREREQUISITE: MTH 153

Theoretical and practical applications of food cost control in food service systems.

312 Three Credits
PHYSIOLOGICAL AND CHEMICAL FOUNDATIONS OF NUTRITION

PREREQUISITE: FSN 110

Study of nutritional requirements as related to individuals at different stages of the life cycle from conception to the aged.

320 Three Credits
FOOD SERVICE MANAGEMENT

PREREQUISITES: FSN 110, FSN 160

Study of the theoretical foundations involved in the organization and management of public and private food service institutions. Emphasis

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.

381F 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.

GENERAL STUDIES (GST/IUL)

IUL 101 Zero Credit
INTRODUCTION TO UNIVERSITY LIFE

This course is a required course for all NSU students. It introduces students to academic, personal, and leadership skills necessary for success in their discipline and at the university. The course will facilitate students' adjustment and *social integration* into the University, develop students' understanding of the learning process, and help students acquire essential college survival skills. This course will also focus on the enhancement of critical thinking skills for all majors, a goal which matches the theme of the University's Quality Enhancement Plan (QEP). Accordingly, it will introduce students to the cutting-edge pedagogical practices of rigorous speaking- and writing-intensive assignments, group work, document analysis, and reflective journaling, among other methods.

GST 180 Three Credits
CAREER EXPLORATION

This course is designed to help the student develop a plan for choosing an academic major and/or career path. Course assignments and activities will promote self-awareness, decision-making, career/major exploration, and transferable skill development.

GST 200 Zero Credit
STUDY SKILLS SEMINAR

This course is designed to provide students with skills that are essential for successful study. Students will be given strategies to identify academic strengths and weaknesses, manage time, take notes, improve writing, and enhance test-taking skills.

Weekly activities will promote utilization of positive study habits.

GST 345H or 346H Three Credits
HONORS SEMINAR

Interdisciplinary topic-driven research course is designed for qualifying Juniors and Seniors in the NSU Honors College. 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 in the NSU Honors College. 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 basic factors that explain the interactions and adaptations of human beings with their environments. Critical thinking and writing competencies are introduced and emphasized.

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 (EE)

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 (EE)

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 REHABILITATION SCIENCE (HRS)

120 One Credit

INTRO TO HEALTH REHABILITATION AND RELATED SERVICES (E)

PREREQUISITES: None

This course serves to introduce students to the science of health rehabilitation (i.e., physical and mental,) and the health rehabilitation service professions. It includes information on their historical, philosophical, legal, educational, ethical and professional foundations. Students also will be introduced to the scope of rehabilitation practice across a wide variety of public and private settings, both nationally and internationally.

220 Three Credits MEDICAL ASPECTS OF DISABILITY AND CHRONIC ILLNESS (FO)

PREREQUISITES: HRS 120, BIO 105 or higher (with grades of B or better)

Introduction to the structure of medicine in the United States; survey of medical specialties and terminology; survey of body systems; common malfunctions; therapeutic services; and restorative techniques.

230 Two Credits REHABILITATION TECHNOLOGIES (FO)

PREREQUISITES: HRS 120 (with grade of B or better)

Principles and applications of rehabilitative assessment and therapy, with special focus on the use of technology to enhance access to rehabilitation care. Overview of sensorimotor systems, as related to human performance and usability analysis. Models for access engineering and telerehabilitation, with focus on accessible design strategies, telemonitoring and teletherapy, and wireless and augmentative communication technologies will be examined. Rehabilitation biomechanics for seated mobility and for manipulation tasks will be explored. Innovations in assessment and intervention strategies for neurorehabilitation will also be included, as well as opportunities for hands-on laboratory demonstrations.

320 Three Credits LEGAL AND ETHICAL ASPECTS OF REHABILITATION (SO)

PREREQUISITES: HRS 120, HRS 220 (with grades of B or better)

This course provides a foundation for rehabilitation services and decision-making through examination of client entitlements, eligibility, advocacy and protections. Health care law, public policy, ethics and confidentiality are discussed in this course. The obligations and impact of mandated reporting are also explored. This course will also examine the historical and legislative evolution of rehabilitation in America.

420 Three Credits PSYCHOSOCIAL ASPECTS OF HEALTH REHABILITATION (FO)

PREREQUISITES: HRS 320, (with grades of B or better)

Social and psychological factors related to adjustment or adaptation to a disability and to the provision of rehabilitation services. This course also examines the psychological and social factors related to adjustment and diverse populations, including

minorities, women, persons with disabilities, and older adults

430 Three Credits

VOCATIONAL ASPECTS OF HEALTH REHABILITATION (FO)

PREREQUISITES: HRS 320 (with grades of B or better)

This course is a survey of vocational aspects of disability, occupational classification as it is practiced in the United States, and career development for persons with disabilities. It examines the vocational impacts of disability, and the methods used to classify work activity, jobs and occupations. Job analysis as an outgrowth and function of occupational classification is explored. Job placement activities, labor market analysis, and post employment services for persons with disabilities are examined.

440 Three Credits

CASE MANAGEMENT IN REHABILITATION (SO)

PREREQUISITES: HRS 230, HRS 320, HRS 420, HRS 430 (with grades of B or better)

This course will assist the student in integrating theory into practice, exploring various treatment strategies and interventions, and examining the relationship between consumer/client and counselor. Emphasis will be in the following specific areas: case management, and rehabilitation counseling procedures and techniques.

HEALTH RELATED PROFESSIONS (HRP)

120 Three Credits

MEDICAL TERMINOLOGY

A study of medical terminology including abbreviations, prefixes, suffixes, root words, and technical terms with emphasis on proper spelling and usage.

220 Three Credits

COMMUNITY MEAL MANAGEMENT
This course focuses on selecting foods and making diets/menus based on various chronic diseases which have implications for individuals at different stages of life. The influence of culture in the meal planning process will be emphasized. Educational experiences in community facility will be arranged. Cooking demonstrations will show healthy food preparations.

310 Three Credits

CURRENT TRENDS IN HEALTH CARE DELIVERY

A 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.

320 Three Credits

AFRICAN AMERICAN HEALTH

PREREQUISITE: Junior standing or special permission from the department chair.

This course will systematically examine the health care issues of African Americans in comparison to other racial/ethnic minority populations. The racial disparities in the leading causes of death identified by the Centers of Disease Control and Prevention will be examined in the context of the five social determinants of health (physical environment, access to health services, biological and genetics, social environment and individual behavior). Additionally, the course will examine the delivery of health care as impacted by health related events and the changing social, political and 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 WORLD
SOCIETIES, PART 1 (E)

A comparative study of societies and cultures and their interactions from the earliest humans to the sixteenth century. Encourages critical thinking and geographical understanding: offers exercises in writing, discussion, and computer applications.

101 Three Credits
HISTORY OF WORLD
SOCIETIES, PART 2 (E)

A comparative study of societies and cultures and their interactions from the sixteenth century to the present, emphasizing modern issues. Encourages critical thinking and geographical understanding: offers exercises in writing, discussion and computer applications.

102 Three Credits
UNITED STATES HISTORY TO
1865 (E)

A comprehensive survey of American history from the development of indigenous cultures to the passage of the Thirteenth Amendment in 1865. Encourages critical thinking and geographical understanding: offers exercises in writing, discussion, and computer applications.

103 Three Credits
UNITED STATES HISTORY 1865
TO PRESENT (E)

A comprehensive survey of American history from the abolition of slavery in 1865 to the present.

Encourages critical thinking and geographical understanding: offers exercises in writing, discussion and computer applications.

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
WESTERN THOUGHT, GLOBAL
CHALLENGES (SI)

PREREQUISITES: Junior or Senior Standing, or Sophomore with the Permission of the Instructor

Studies the development and characteristics of Western thought and ideologies and their application to modern global issues and challenges. Emphasizes critical thinking, writing, and oral competency.

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 (SI)

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 the Old Dominion has played in the development of the United States.

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 the 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 the abolition of slavery in 1865. Emphasizes critical thinking, writing and oral competency.

336 Three Credits
AFRICAN-AMERICAN HISTORY
(E)

Survey of African-American history from the abolition of slavery in 1865 to the present. Emphasizes critical thinking, writing and oral competency.

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
GREAT BRITAIN SINCE 1832 (O)

Study of the rise and fall of Great Britain as the world's leading industrial and imperial power. Focuses also on the effects of

decolonization, including African, West Indian, and Asian immigration to the United Kingdom, as well as the making of the welfare state after the Second World War.

343 Three Credits
EUROPE FROM THE RENAISSANCE TO WATERLOO (SI)

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)

Examines the balance of power from the Congress of Vienna to the First World War; Examines the rise of liberalism, nationalism, and imperialism. Looks carefully at the spread of representative democracy and industrialization.

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 (SI)

Intensive directed reading for exceptionally able students.

362 Three Credits
INTRODUCTION TO THE MODERN MIDDLE EAST, PART 1 (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 MIDDLE EAST, PART 2 (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 (SI)

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 (SI)

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 (SI)

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 NeoConfucianism, 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 (SI)

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 that shaped the coming of various people to America, their adjustments to a new homeland, and the contributions that various groups have made.

438 Three Credits THE UNITED STATES FROM THE 1890s TO 1932 (SI)

Study of the impact of industrialism, urbanization, racial problems, foreign policy, and World War I upon American society.

439 Three Credits RECENT AMERICAN HISTORY 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. This required course for majors reinforces and emphasizes student competencies in writing, speaking and critical thinking.

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 (SI)

Study of German history from the TransAlpine 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 (SI)

Study of political, cultural, and military development under Bismarck and William II, the First World War, defeat, and republican government; Nazism, the Second World War and defeat; partition, the postwar 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 (SI)

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 (SI)

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 (FO)

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. This required course for majors reinforces and applies student competencies in writing, speaking, and critical thinking.

501 Three Credits TOPICS IN AMERICAN HISTORY (O)

Lecture or seminar topics to be selected by course instructor.

502 Three Credits TOPICS IN EUROPEAN HISTORY (O)

Lecture or seminar topics to be selected by course instructor.

503 Three Credits TOPICS IN NON-WESTERN HISTORY (O)

Lecture or seminar topics to be selected by course instructor.

504 One-Three Credits WORLD HISTORY TOPICS FOR WORLD HISTORY TEACHERS (O)

This course will feature selected topics of particular interest in world history to local teachers and school districts.

516 Three Credits AMERICA AND THE RISE OF THE CITY: 1865 TO THE PRESENT (O)

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 megropolis.

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 MANAGEMENT TECHNOLOGY (IMT)

170 One Credit

INTRODUCTION TO TECHNOLOGY (EE)

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.

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.

412 Three Credits

INFORMATION SYSTEMS FOR TECHNOLOGISTS (EE)

This course focuses on how managers can apply knowledge of IT tools to solve technical problems and find new opportunities to improve their organizations. Problems relating to security, risk analysis, telecommunications, human-machine interaction, database management and artificial intelligence are addressed.

413 Three Credits

PROJECT MANAGEMENT (EE)

A thorough coverage of the all aspects of managing a project. The process covered by the course include: project planning, organizing, creating project organization control and final project completion activities. Participant should gain a concrete understanding and foundation to successfully manage every phase of the project life cycle, work within organizational cost constraints, set goals linked directly to stakeholder needs, and utilize proven project management tools to complete the project on time and within budget.

415 Three Credits

INDUSTRIAL MAINTENANCE MANAGEMENT

PREREQUISITES: IMT 205

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

Methods, materials, tools and equipment of industry for purposes of improvement and standardization.

425 Three Credits

PLANT LAYOUT AND MATERIAL HANDLING

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.

INTELLIGENCE STUDIES (INS)

400 Three Credits

FUNDAMENTALS OF INTELLIGENCE (EE)

This course provides a basic overview of intelligence at the unclassified level. It includes a brief history of the development intelligence as a profession. It examines the structure of the national Intelligence Community and its sixteen agencies. Intelligence preparation of the battle space and the use of sensors as part of the collection process and analytical methodology are briefly explored.

401 Three Credits

APPLIED INTELLIGENCE RESEARCH METHODS (EE)

This course examines the application of intelligence research methods to practical intelligence problems. Using both qualitative and quantitative methods, the course will focus on the collection analysis and presentation of data in an environment in which researchers must be cognizant of the potentially classified nature of the information being processed. The course will provide an understanding of the basic concepts of research that will assist students

in completing their theses as well as provide skills they need for analysis and problem-solving in their professional careers. The class will consist of lectures as well as practice research problems to ensure students understand how to apply research methods and techniques.

402 Three Credits

THEORY OF INTERNATIONAL RELATIONS (EE)

This course is a critical survey of the forces and issues shaping contemporary global interdependencies. It addresses resources control and sharing, ethnological and ethical considerations, cultural, religious, and social peculiarities, labor, and armed conflict. The world is connected more today than at any point in history. The global discussion of how to integrate relatively new nation-states into world politics as well as enveloping African, South American, and West Asian economies into the international political economy is just the beginning. Although discussion is beginning, the practicality and movement to these positions has had momentum for the past half century. We will discuss theoretically, how to engage second and third world countries, and how they view that engagement from their perspective.

INTERDISCIPLINARY STUDIES (INT)

308 Three Credits

INTRODUCTION TO INTERDISCIPLINARY STUDIES (E)

COREQUISITE: INT 322

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)

COREQUISITE: INT 308

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)

COREQUISITE: INT 308, INT 322

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)

COREQUISITE: INT 308, INT 322

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 the historical forces behind globalization-its promises its

impact on world culture, its tensions and opportunities, its biases and challenges and its shortcomings. Areas of theoretical concern include: Wallenstein's World-system Theory (WT), Clark's Global System Paradigm (GSP), and Dogbe's Geosociology Paradigm (GP). These paradigms are employed to critically investigate geo-social, geo-political, and global economic structures that influence contemporary inter-human activities, global intercommunications and technologies, human welfare, cultural diversity, education, world citizenship, outsourcing of labor, and the draining of knowledge and specialized skills from the developing 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.

477SL Three Credits

SERVICE-LEARNING THESIS (EE)

PREREQUISITES: INT 308, INT 322, INT 360, INT 375, INT 411, INT 412

COREQUISITE: INT 470

Holistic, integrative research processes that integrate concepts, language and paradigms of selected disciplines actualized via a service-learning project to collect data for analysis, synthesis, and interpretation of findings. These theory-based application projects reflect interdisciplinary studies principles, allow students to SERVE in the larger community, and documents linkages between academic theories, course content, work and themes, and the complexities of application; projects are supervised by the course instructor (and service-learning site supervisor/ coordinator).

477WL Three Credits

WORK/LIFE-EXPERIENCE THESIS (EE)

PREREQUISITES: INT 308, INT 322, INT 360, INT 375, INT 411, INT 412

COREQUISITE: INT 470

Holistic, integrative research processes that integrate concepts, language and paradigms of selected disciplines actualized via current career-based employment to collect data for analysis, synthesis, and interpretation of findings. This application based project utilizes documents and reflects interdisciplinarity in real-world experiences and are supervised by the course instructor and students' immediate

supervisor/ employer. Special permission of instructor required.

477T Three Credits

TRADITIONAL THESIS (EE)

PREREQUISITES: INT 308, INT 322, INT 360, INT 375, INT 411, INT 412

COREQUISITE: INT 470

Holistic, integrative research processes that integrate concepts, language and paradigms of selected disciplines using quantitative and qualitative research methodologies to collect data for analysis, synthesis, and interpretation of findings. Foci of projects are for student to demonstrate their interdisciplinarity and are supervised by the course instructor (aka 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.

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.

KOREAN (KOR)

111 Three Credits
ELEMENTARY KOREAN I

Introduces students to the basic grammar and sentence structures of Korean and to some aspects of Korean culture. The course includes reading, speaking, listening, and writing to familiarize students with Korean as it is used in communication situations of everyday life.

112 Three Credits
ELEMENTARY KOREAN II

PREREQUISITE: KOR 111

A continuation of the introduction to the Korean language and culture with emphasis on the basic skills of understanding, reading, speaking, and writing Korean.

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 (SO)

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 (FO)

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 (MIS)

284 Three Credits

ADVANCED MICROCOMPUTING (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)

PREREQUISITES: BUS 175, MIS 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: MIS 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: MIS 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: MIS 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: MIS 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)

PREREQUISITE: MIS 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: MIS 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: MIS 372 or MIS 374 or MIS 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: MIS 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.

423 Three Credits

DECISION SUPPORT AND EXPERT SYSTEMS (EE)

PREREQUISITE: MIS 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: MIS 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

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.

353 Three Credits COMPUTER NUMERICAL CONTROL AND COMPUTER-AIDED MANUFACTURING

PREREQUISITES: ITM 147; CSC 170; MTH 153

Development of insight into the advantages of computer numerical control systems manufacturing tools and techniques. The course will examine process planning, machine types, control systems, tooling and fixturing, and programming and operation of CNC lathes and mills.

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 BEHAVIOR (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: MKG 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

Provide a basic understanding of the challenges and opportunities involved in the operations of retail business. Major areas of discussion include types of retail institutions, retail locations management, international retailing and the legal and ethical aspects of operating retail business.

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 various target markets 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)

PREREQUISITE: MCM 211

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)

PREREQUISITE: MCM 211

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 211; 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: ENG 303; 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, the role of the media and the marketing concept.

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 **Three Credits**
MEDIA TECHNOLOGIES (FO)

PREREQUISITE: Senior Standing

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)

FOR ALL PREREQUISITES:
GRADE 'C' OR HIGHER

101 **Three Credits**
ELEMENTARY ALGEBRA (E)

Developmental approach for students whose backgrounds indicate a need for further review of arithmetic and basic algebra. Mathematics laboratory required. (Credits usually do not count toward the mathematics requirements of a student's major.)

102 **Three Credits**
ESSENTIALS OF ALGEBRA (E)

Topics include operations of real numbers, ratios, proportions, percents, order of operations, linear and quadratic equations, inequalities, graphing, operations of polynomials, roots, radicals, and system of equations. A Lab component is used to reinforce the

concepts of the topics introduced in class.

103 **Three Credits**
MATHEMATICS IN GENERAL EDUCATION (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. (This course satisfies the minimum general education mathematics requirement.)

105 **Three Credits**
INTERMEDIATE ALGEBRA (E)

PREREQUISITE: MTH 101 or the Equivalent

Preparation for the pre-calculus including linear and quadratic equations, graphing, polynomials, roots, radicals, and systems of equations. (Satisfies the minimum general education mathematics requirement.)

131 **Three Credits**
PRE-CALCULUS 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, integration, and applications in business.

141 **Three Credits**
ELEMENTS OF MATHEMATICS FOR TEACHERS I (EE)

PREREQUISITE: MTH 103 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. Computer-based laboratory

component with manipulatives included.

142 Three Credits

ELEMENTS OF MATHEMATICS FOR TEACHERS II (EE)

PREREQUISITE: MTH 141 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. Topics include algebraic operations, equations and inequalities, graphs and functions, polynomial and rational functions, and system of linear and non-linear equations.

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. Topics include exponential and logarithmic functions, trigonometric functions, graphs of trigonometric functions, trigonometric identities and equations, and solving oblique triangles using the laws of sines and cosines.

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; geometry; algebra; trigonometry; calculus; and 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, congruencies, 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. Topics include applications of probability, descriptive statistics, random samples, point estimators and their properties, tests of hypotheses, confidence intervals, and the comparison of two populations.

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, higher order linear differential equations, and the Laplace transform. Applications include growth/decay models, electric circuits, 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 Fourier Series, 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.

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 352

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. Topics include types of proofs, real numbers, theory of sequences and limits of functions, continuity, differentiability, sequences and series of functions, uniform convergence, and Riemann integrals.

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 (EE)

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 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 310

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 (FSU)

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)

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 (FO)

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 (FO)

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 Zero 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 (SO)

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 (SO)

Rotation through the chemistry laboratory incorporating instruction and examinations in routine chemistry and special chemistry under the supervision of a clinical specialist.

MILITARY SCIENCE (MSL)

101 Two Credits

FUNDAMENTALS OF LEADERSHIP/MANAGEMENT (FO)

MSL 101 introduces cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as goal setting, time management, physical fitness, and stress management relate to leadership, officership, and the Army profession. Focus is placed on developing basic knowledge and comprehension of Army Leadership Dimensions while gaining a big picture understanding of the ROTC program, its purpose in the Army, and its advantages for the student.

101D One Credit

BASIC DRILL AND CEREMONY MODULE (FO)

PREREQUISITE: MSL 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)

MSL 102 overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. Cadets explore dimensions of leadership values, attributes, skills,

and actions in the context of practical, hands-on, and interactive exercises. Continued emphasis is placed on recruitment and retention of cadets. Cadre role models and the building of stronger relationships among the cadets through common experience and practical interaction are critical aspects of the MSL 102 experience.

102D One Credit
BASIC DRILL AND CEREMONY
MODULE (SO)

PREREQUISITE: MSL 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)

MSL 201 explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework. Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs.

Focus is on continued development of the knowledge of leadership values and attributes through an understanding of Army rank, structure, and duties and basic aspects of land navigation and squad tactics. Case studies provide tangible context for learning the Soldier's Creed and Warrior Ethos as they apply in the contemporary operating environment (COE).

201D One Credit
BASIC DRILL AND CEREMONY
MODULE (FO)

PREREQUISITE: MSL 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)

MSL 202 examines the challenges of leading tactical teams in the COE. The course highlights dimensions of terrain analysis, patrolling, and operation orders. Further study of the theoretical basis of the Army leadership framework explores the dynamics of adaptive leadership in the context of military operations. MSL 202 provides a smooth transition into MSL 301. Cadets develop greater self awareness as they assess their own leadership styles and practice communication and team building skills. COE case studies give insight into the importance and practice of teamwork and tactics in real world scenarios.

202D One Credit
BASIC DRILL AND CEREMONY
MODULE (SO)

PREREQUISITE: MSL 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: MSL 101, 102, 201, and 202 or Placement Credit

MSL 301 challenges cadets to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback on their leadership attributes and actions. Based on such feedback, as well as their own self-evaluations, cadets continue to develop their leadership and critical thinking abilities.

The focus is developing cadets' tactical leadership abilities to enable them to succeed at ROTC's summer Leadership Development and Assessment Course (LDAC).

301D One Credit
ADVANCED DRILL AND
CEREMONY MODULE (FO)

PREREQUISITE: MSL 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: MSL 301

MSL 302 uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading small units. Skills in decision-making, persuading and motivating team members when "under fire" are explored, evaluated, and developed. Aspects of military operations are reviewed as a means of preparing for the ROTC Leader Development and Assessment Course (LDAC). Cadets are expected to apply basic principles of the Law of Land Warfare, Army training, and motivation to troop leading procedures. Emphasis is also placed on conducting military briefings and developing proficiency in Garrison operation orders. MSL 302 cadets are evaluated on what they know and do as leaders.

302D One Credit
ADVANCED DRILL AND
CEREMONY MODULE (SO)

PREREQUISITE: MSL 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
LEADERSHIP ASSESSMENT
DEVELOPMENT COURSE (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: MSL 301, 302

MSL 401 develops cadet proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing performance feedback to subordinates. Cadets assess risk,

make ethical decisions, and lead fellow ROTC cadets. Lessons on military justice and personnel processes prepare cadets to make the transition to Army officers. MSL IV cadets analyze, evaluate, and instruct cadets at lower levels. Both their classroom and battalion leadership experiences are designed to prepare MSL 401 cadets for their first unit of assignment. They identify responsibilities of key staff, coordinate staff roles, and use situational opportunities to teach, train, and develop subordinates.

401D One Credit

ADVANCED DRILL AND CEREMONY MODULE (FO)

PREREQUISITE: MSL 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: MSL 401

MSL 402 explores the dynamics of leading in the complex situations of current military operations in the COE. Cadets examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. They also explore aspects of interacting with nongovernmental organizations, civilians on the battlefield, and host nation support. The course places significant emphasis on preparing cadets for their first unit of assignment. It uses case studies, scenarios, and "What Now, Lieutenant?" exercises to prepare cadets to face the complex ethical and practical demands of leading as commissioned officers in the United States Army.

402D One Credit

ADVANCED DRILL AND CEREMONY MODULE (SO)

PREREQUISITE: MSL 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

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)

100B One Credit

Each

APPLIED MINOR (E)

Piano

MINOR COURSE: Open to non-majors by permission of Department only.

Preparatory course for students who do not qualify (on audition) for MUS 121. (Meets one hour weekly.)

110, 111 One Credit

Each

ENSEMBLE (E)

Ensembles available, Instrumental: University Bands; Small Ensembles: jazz, percussion; 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.

APPLIED MINOR

121, 122A One Credit

Each

VOICE (E)

Emphasis on correct vocal production and exploration of a variety of representative vocal literature.

APPLIED MINOR

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.

APPLIED MINOR

121C, 122C One Credit

Each

ORGAN (E)

PREREQUISITE: Placement

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).

APPLIED MINOR

121D, 122D One Credit

Each

BRASS (E)

PREREQUISITE: Placement

Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

APPLIED MINOR

121E, 122E One Credit

Each

WOODWIND (E)

PREREQUISITE: Placement

Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

APPLIED MINOR

121F, 122F One Credit

Each

STRINGS (E)

PREREQUISITE: Placement

Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

121G, 122G One Credit

Each

APPLIED MINOR

PERCUSSION (E)

PREREQUISITE: Placement

Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

**APPLIED MAJOR/RECITALS

125, 126A Two Credits

Each

VOICE (E)

PREREQUISITE: Placement

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. Attendance and participation in seminars, work-

shops, in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS 125B, 126B Two Credits

Each

PIANO (E)

PREREQUISITE: Placement

Study of major scales (24 octaves), hands together, minor scales, hands separate; selected studies of Czerny, Hanon, Burgmuller, sonatinas of Clementi, Kuhlau, Beethoven; seventh arpeggio. Attendance and participation in seminars, work-shops, in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS 125C, 126C Two Credits

Each

ORGAN (E)

PREREQUISITE: Placement

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. Attendance and participation in seminars, work-shops, in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS 125D, 126D Two Credits

Each

BRASS WINDS (E)

PREREQUISITE: Placement

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: Slamagg Studies, Rochut Melodious Studies, Remington Warmups; 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. Attendance and participation in seminars, work-shops, in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS 125E, 126E Two Credits

Each

WOODWINDS (E)

PREREQUISITE: Placement

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, 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. Attendance and participation in seminars, work-shops, in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS 125F, 126F Two Credits

Each

STRING (E)

PREREQUISITE: Placement

Study of basic violin technique, lefthand 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. Attendance and participation in seminars, work-shops, in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS 125G, 126G Two Credits

Each

PERCUSSION (E)

PREREQUISITE: Placement

Rudiment studies from the Gardner's Complete Method for Percussion; selected snare drum solos from the HaskellHarr Collection; major scales on marimba with alternating sticks; study of other instruments of the percussion family. Attendance and participation in seminars, work-shops, in seminars,

workshops, recital hour, and on/off-campus concerts.

131, 132 Two Credits

Each

MUSIC LITERATURE (EE)

PREREQUISITE: Placement

Foundation in the materials and history to identify music styles and genres, major composers and their works, and familiarity with historical periods in music.

140 Three Credits

Each

MUSIC FUNDAMENTALS (E)

Study of the fundamentals of music and elementary theory. Does not count towards graduation. (For students who do not pass the Theory Placement Test)

141, 142 Two Credits

Each

SIGHT-SINGING AND EAR TRAINING (E)

Study of Theory I, II including sight-singing; melodic and harmonic dictation; scales, intervals and triads; and the analyzation of melodies. Exploration of the use of chords of the ninth, eleventh, and thirteenth. Special emphasis on voice leading and chord sonorities.

145, 146 Two Credits

Each

HARMONY AND KEYBOARD (E)

Study of Theory I, II including part writing, keyboard harmony, and harmonic analysis from triads and their inversions through nonh armonic tones, the dominant seventh chord and its inversions, secondary dominant, and other chords. (Meets three hours per week.)

151 Two Credits

ELEMENTARY CONDUCTING (FO)

PREREQUISITES: MUS 141, 145

Introduction to the art of conducting with emphasis on mastery of fundamental beat patterns.

161 One Credit

STRING CLASS (FO)

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.)

210, 211 One Credit

Each

ENSEMBLES (E)

Ensembles available, Instrumental: University Bands; Small Ensembles: jazz, percussion; Vocal: Concert Choir and Jazz Choir.

APPLIED MINOR

221A, 222A **One**
Credit Each

VOICE (E)

Emphasis on correct vocal production and exploration of a variety of representative vocal literature.

APPLIED MINOR

***221B, 222B** **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. Passage of the Piano Facility Examination required.

APPLIED MINOR

221C, 222C **One Credit**
Each

ORGAN (E)

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.

APPLIED MINOR

221D, 222D **One Credit**
Each

BRASS (E)

Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

APPLIED MINOR

221E, 222E **One**
Credit Each

WOODWINDS (E)

Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

APPLIED MINOR

221F, 222F **One**
Credit Each

STRINGS (E)

Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

APPLIED MINOR

221G, 222G **One**
Credit Each

PERCUSSION (E)

Emphasis on correct tone production and playing techniques. Exposure to a variety of literature for the particular minor instrument.

APPLIED MAJOR/RECITALS

225A, 226A **Two**
Credits

Each

VOICE (E)

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). Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS

225B, 226B **Two Credits**
Each

PIANO (E)

Study of major scales (4 octaves); minor scales (24 octaves), hands together, studies of the level of Czerny, Hanon, Heller, sonatas or sonatas of Haydn, Mozart, or Beethoven; studies from Bach, Little Preludes and Fugues or TwoPart Inventions; selected compositions of other periods. Passing of the Piano Facility Examination required. Attendance and participation in seminars, work-shops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS

225C, 226C **Two Credits**
Each

ORGAN (E)

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. Attendance and participation in seminars, work-shops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS

225D, 226D **Two Credits**
Each

BRASS WINDS (E)

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. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS

225E, 226E **Two Credits**
Each

WOODWINDS (E)

Emphasis on technical development, finger all tone control; Giampieri Caprices; Kroepsch Daily Studies, major scales in thirds. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS

225F, 226F **Two Credits**
Each

STRINGS (E)

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. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS

225G, 226G **Two Credits**
Each

PERCUSSION (E)

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 HaskellHarr. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts.

234 **Three Credits**

AFRICAN AMERICAN MUSIC (E)

Survey of the music created and performed by African Americans as an ethnic group and as individuals from 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.

240 Three Credits
PROGRESSIVE HARMONY

Practice in writing and analyzing contemporary chord progressions with emphasis on keyboard skills, ear-training, and creative writing.

241/242 Two Credits
Each

SIGHT-SINGING AND EAR TRAINING (E)

PREREQUISITE: MUS 142

Study of aural non-diatonic exercises, advanced sight-singing, advanced melodic and harmonic dictation.

243 Three Credits
MELODY AND IMPROVISATION

Provides guidelines for the disciplines of jazz improvisation through the use of melodic, harmonic, rhythmic and structured procedures.

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 sociohistorical 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)

Study and drills on English and Italian phonetics with application to singing. General survey with emphasis on usage in music literature. (Meets two hours per week)

272 One Credit
VOCAL DICTION (FO)

Study and drills on German and French phonetics with application to singing. General survey with emphasis on usage in music literature. (Meets two hours per week)

273 One Credit
VOICE CLASS (Instrumental & Keyboard) (SO)

Study of vocal techniques and survey of solo and choral literature designed to prepare students in training voices in the public schools and developing their voices. (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.

ENSEMBLE

310, 311 (E) One Credit
Each

Ensembles available, Instrumental: University Bands; Small Ensembles: jazz, percussion; Vocal: Concert Choir and Jazz Choir.

APPLIED MAJOR/RECITALS
325A, 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, Wolf; French songs of Hahn, Godard, Debussy; contemporary songs in English, moderately difficult oratorio and operatic literature; vocal exercises of Panofka; Marchesi, Lamperti, and others. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS
325B, 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 accompaniments; 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. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS
325C, 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. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS
325D, 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. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS

325E, 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 repertoire; all scales, major, minor and chromatic; diminished arpeggios. Attendance and participation in seminars, work-shops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS

325F, 326F **Two Credits**
Each

STRINGS (E)

Studies from Kreutzer Etudes 123; extended scales and arpeggio; double stops, study of concertos such as Mozart and Villa, all sonatas such as Handel and Vivaldi. Attendance and participation in seminars, work-shops, recital hour, and on/off-campus concerts.

APPLIED MAJOR/RECITALS

325G, 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. Attendance and participation in seminars, work-shops, recital hour, and on/off-campus concerts.

MUSIC HISTORY (EE)

331, 332 **Two Credits**
Each

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.

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. Studies in arranging.

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.

367 **Three Credits**

PRO TOOLS (FO)

Course is computer software instructional training sponsored by Digidesign that supports hands-on digital audio editing. Pro Tools 101 is designed to prepare students for intermediate digital audio editing in home and commercial studios.

368 **Three Credits**

AVID XPRESS

This course is designed to teach students how to edit professional-quality video programs on Avid Xpress Pro of Avid Express DV, with hands-on practice, using documentary and dramatic footage. The course will provide editing skills that build successful careers in television, film, and broadcast news.

369 **Three Credits**

PRO TOOLS 110

PREREQUISITE: MUS 365, MUS 367

This course is the second level of the four prerequisite courses that leads to certified operator status offered by Digidesign. The course covers all advance techniques of post production digital audio editing.

383I **Two Credits**

CURRICULUM AND INSTRUCTIONAL PROCEDURES IN TEACHING MUSIC IN THE PUBLIC SCHOOLS (Instrumental) (SO)

PREREQUISITES: PRAXIS I, ACT/SAT, Junior or Senior Standing

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.)

383V **Two Credits**

CURRICULUM AND INSTRUCTIONAL PROCEDURES IN TEACHING MUSIC IN THE PUBLIC SCHOOLS (Vocal) (SO)

PREREQUISITES: PRAXIS I, ACT/SAT, Junior or Senior Standing

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.)

384I Two Credits
CURRICULUM AND INSTRUCTIONAL PROCEDURES IN TEACHING MUSIC IN THE PUBLIC SCHOOLS (Instrumental) (SO)

PREREQUISITES: PRAXIS I, ACT/SAT, Junior or Senior Standing

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.)

384V Two Credits
CURRICULUM AND INSTRUCTIONAL PROCEDURES IN TEACHING MUSIC IN THE PUBLIC SCHOOLS (Vocal) (SO)

PREREQUISITES: PRAXIS I, ACT/SAT, Junior or Senior Standing

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.)

ENSEMBLES

410, 411 (E) One Credit
Each

Ensembles available, Instrumental: University Bands; Small Ensembles: jazz, percussion; Vocal: Concert Choir and Jazz Choir.

APPLIED MAJOR/RECITALS
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, Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts. Preparation and completion of senior recital or senior jury.

APPLIED MAJOR/RECITALS
425B, 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. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts. Preparation and completion of senior recital or senior jury.

APPLIED MAJOR/RECITALS
425C, 426C Two Credits
Each
ORGAN (E)

Continued study of hymn playing, style, ornamentation, organ construction, as applicable to music by the Pre-Bach masters; Baroque, Romantic, and contemporary composers. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts. Preparation and completion of senior recital or senior jury.

APPLIED MAJOR/RECITALS
425D, 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. 15. Solo literature: Trumpet Tune; Clark; Trumpet Voluntary; etc. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts. Preparation and completion of senior recital or senior jury.

APPLIED MAJOR/RECITALS
425E, 426E Two Credits
Each
WOODWINDS (E)

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; polished performances of compositions from MUS 325, 326 and other compositions of different styles. Sight-reading of advanced literature. Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts. Preparation and completion of senior recital or senior jury.

APPLIED MAJOR/RECITALS
425F, 426F Two Credits
Each
STRINGS (E)

Studies from Kreutzer Etudes 2442; Schradieck's Technical Violin School; Attendance and participation in seminars, workshops, recital hour, and on/off-campus concerts. Preparation and completion of senior recital or senior jury.

APPLIED MAJOR/RECITALS
425G, 426G Two Credits
Each
PERCUSSION (E)

Three or four stick marimba solos from HaskellHarr, Marimba solos; timpani solos using three and four timpani; difficult snare drum solos; preparation and completion of senior recital or senior jury.

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 Two Credits
ARRANGING (SO)

PREREQUISITES: MUS 242, 246 or Permission of the Instructor

Scoring for small ensembles (vocal and choral) 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.

****Two Applied Major/Recitals may not be taken within the same semester.**

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 other Navies throughout history.

201 Three Credits NAVAL SHIP SYSTEMS I (ENGINEERING)

Introduction to the types, structure, and purpose of naval ships including ship compartmentalization, 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)

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.

153 Four Credits FUNDAMENTAL PHARMACOLOGICAL SKILLS

Promotes the development of skills necessary for the safe preparation and administration of medications to patients of all ages. Focus on the metric, apothecary, and household systems of measurements, calculation of drug dosages and practice in the safe 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 who are experiencing potential and/or actual difficulties in maintaining physiological homeostasis. Development of plans of care based on a 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 who are experiencing self-care deficits associated with emergent and chronic disorders. The role of significant others in the care and treatment of emergent and chronic disorders is discussed. Emphasis is placed on the application of the nursing process for clients who are experiencing ongoing deviations from wellness.

272 One Credit

CONTEMPORARY TRENDS IN NURSING PRACTICE

PREREQUISITES: All Freshman Level Courses and NUR 275

This course is a 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, The course focuses on nursing assistance to individuals of all ages with increasingly complex self-care deficits. Emphasis is placed 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 is placed on the application of the nursing process for clients who are experiencing complex multiple stressors.

287 Two Credits

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. Successful completion of the course is dependent upon passing a comprehensive examination.

301 Three Credits

NURSING LEADERSHIP: POLITICS, POLICY, AND PRACTICE (EE)

PREREQUISITES: Junior or Senior class standing within the Department of Nursing

This elective online course with a mandatory service learning component is designed to promote involvement in professional nursing associations, promote the development of leadership competencies, increase participation in service learning activities, promote mentor/protege networks and increase nursing students' knowledge of and interaction with ethnically and culturally diverse, politically active nurse leaders in Virginia and across the United States.

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 Six 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 Four Credits

HEALTH ASSESSMENT

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.

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

PREREQUISITES: NUR 362, 362L, 415, 418

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. (2 hour lecture/9 hours laboratory)

PLACEMENT: 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 Five 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

This course forces which affect health-care delivery and the impact of these changes on the scope of nursing practice. Emphasis is focused 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 the 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

This course focuses on the study of a variety of contemporary topics in nursing and health care, for which the student may select topics of interest for group presentations, workshops, and/or research projects. Projects and/or presentations may be offered on weekday evenings and/or Saturdays.

OPTICAL ENGINEERING (OEN)

200 Three Credits

GEOMETRIC AND INSTRUMENTATION OPTICS (FO)

PREREQUISITES: PHY161; PHY 161I, MTH 251

COREQUISITE: OEN 200L

Basic principles of geometric optics, refraction and reflection will be discussed. Gaussian optics of axially symmetrical systems and other related topics as well as simple optical instruments such as magnifying lenses, compound microscopes, refracting telescopes and other simple optical systems will be discussed.

200L One Credit

GEOMETRIC AND INSTRUMENTATION OPTICS LABORATORY (FO)

PREREQUISITE: PHY161L

COREQUISITE: OEN 200

This is a course in intermediate geometric optics that provides students with state-of-the-art laboratory exercises and equipment that will allow them to do fundamental experiments using

lasers, fiber optic systems and diodes. This course complements OEN200 and students are advised to take these courses concurrently.

201 Three Credits

**PHYSICAL AND
INSTRUMENTATION OPTICS
(SO)**

PREREQUISITES: OEN 200, OEN 200L

COREQUISITE: OEN 201L

This course is the second half of OEN 200 with more detailed discussion of topics such as interference and interferometers, Fresnel and Fraunhofer diffraction, spectroscopic instrumentation, electro-optic effects and elements of quantum and nonlinear behavior.

201L One Credit

**PHYSICAL AND
INSTRUMENTATION OPTICS
LABORATORY (SO)**

COREQUISITE: OEN 201

This laboratory is designed to complement the topics discussed in OEN 201 and students are advised to take these courses concurrently.

297 Three Credits

SUMMER RESEARCH (SS)

PREREQUISITES: Sophomore Status and Permission of the Instructor

Undergraduate research supervised by a faculty member. Development of the skills of research including preparations, design and execution of experiments, data analysis.

320 Three Credits

**OPTICAL SYSTEMS ANALYSIS
(SO)**

PREREQUISITES: OEN 340

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 (FO)

PREREQUISITE: OEN 201

COREQUISITE: OEN 340L

Condensed matter physics including issues in solid state physics, laser physics, laser light, laser components and systems and measurements are covered in this course.

340L One Credit

**LASERS AND PHOTONICS
LABORATORY (FO)**

COREQUISITE: OEN 340

This course is the study of lasers and photonics in a laboratory setting.

360 Three Credits

**INTRODUCTION TO OPTICAL
MATERIALS (FO)**

PREREQUISITES: EEN 211; OEN 201

This course provides students with the basic principles of optical properties of different material systems that influence optical transitions in conductors, insulators and semiconductors. Specialty topics covering quantum and non-linear effects will also be covered.

380 Three Credits

**INTRODUCTION TO QUANTUM
OPTICS (FO)**

PREREQUISITES: EEN 211, MTH 252, OEN 201

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.

397 Three Credits

SUMMER RESEARCH (SS)

PREREQUISITES: Junior Status and Permission of the Instructor

Undergraduate research supervised by a faculty member. Further development of the skills of research including preparations, design and execution of experiments, data analysis.

460 Three Credits

**OPTICAL COMMUNICATIONS I
(FO)**

PREREQUISITES: OEN 340, 360

COREQUISITE: OEN 460L

Study of optical communication components and applications to communications systems, including fiber attenuation and dispersion, laser modulation, photo detection and noise and coherent communications.

460L One Credit

**OPTICAL COMMUNICATIONS I
LABORATORY (FO)**

COREQUISITE: OEN 460

Study of optical communication components and applications to communications systems in a laboratory setting.

461 Three Credits

**OPTICAL COMMUNICATIONS II
(SO)**

PREREQUISITE: OEN 460

COREQUISITE: OEN 461L

Further discussion of coherent communications, as it relates to distribution networks for fiber-to-the-premises (FTTP) and optical sensing.

461L One Credit

**OPTICAL COMMUNICATIONS II
LABORATORY (SO)**

PREREQUISITE: 460L

COREQUISITE: OEN 461

This laboratory is designed to complement the topics discussed in OEN 461. Students are advised to take these courses concurrently.

490 One Credit

SENIOR SEMINAR (FO)

PREREQUISITE: Senior Status and Permission of the Instructor

This course provides an introduction to various aspects of engineering practice, engineering ethics, and career opportunities through invited lectures.

498 Three Credits

SENIOR PROJECT I (FO)

PREREQUISITE: Senior Status and Permission of the Instructor

In this course, students plan and design capstone engineering projects incorporating realistic and diverse constraints of technical, budgetary, and social aspects. Both written reports and oral presentations are required.

499 Three Credits

SENIOR PROJECT II (SO)

PREREQUISITE: OEN 498 and Permission of the Instructor

This course is the implementation phase of capstone projects designed in OEN 498. Demonstration of the final working project is required along with a written report and oral presentation.

PHYSICAL EDUCATION (PED)

100 One Credit

FUNDAMENTALS OF FITNESS FOR LIFE FO) (SO)

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, Each One Credit

MODIFIED PHYSICAL EDUCATION (EE)

Individualized programs of instruction for students with handicapping conditions. Medical excuse required.

107 Aerobics (EE) One Credit

Aerobics is an experiential course designed to give students an introductory experience and orientation to basic cardiovascular development using aerobic workout and step training as physical fitness tools. Of particular interest will be the student's individual journey in a quest for healthier living.

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 (EE) 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 (EE) 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 (EE) One Credit Each

Rhythm/Folk Dance is an experiential course designed to give students an introductory experience in basic rhythmic development using the folk dance of various cultures. The primary learning experiences for this class will include but are not limited to: rhythmic development including hand clapping and vocalizations, basic music value and notation, cardiovascular warm-up, use of gross motor skills including axial and locomotor skills, and historical and socio-cultural inquiry into various dances in different societies. Of particular interests will be the basic socio-cultural and historical background including the music and movements of each dance.

158, 159 Fundamentals of Physical Education (EE) 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 (EE) Two Credits

Study of the proper techniques and procedures for administering first aid and CPR.

200 Beginning Fitness Through Weight Training (EE) 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 (EE) One Credit

Development of basic skills in the game of tennis, including techniques, rules, and strategies.

206 Tennis II (EE) One Credit

Development of performance skills at the beginning level, the knowledge of rules, terminology,

equipment, and safety techniques in tennis.

209 Bowling (EE) 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 (EE) 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 (EE) One Credit Each

Modern Dance I is an experiential course designed to give students an introductory experience and orientation to techniques and principles of modern dance. The primary learning experiences for this class will include but are not limited to: rhythmic development, stretch and strength warm-up, use of gross motor skills including axial and loco motor skills, and cursory historical and socio-cultural inquiry. Of particular interests will be the basic socio-cultural and historical background of Modern dance specifically as it relates to the development of African American concert dance traditions. Primary teaching techniques for this class will include an introduction to primary Modern dance concepts and the Umfundalai technique.

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 One Credit

262 One Credit

TEAM SPORTS (EE)

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 One Credit

272 One Credit

INDIVIDUAL SPORTS (EE)

PREREQUISITES: PED 158, 159

Development of skills in archery, golf, tennis, badminton, bowling, racquetball, pickle ball; fitness testing.

280 Three Credits

INTRODUCTION TO PHYSICAL EDUCATION

Introduction to historical, philosophical, educational, psychological, biological, sociological, and career emphasis related to the field of physical education.

287, 287L Four Credits

HUMAN ANATOMY (FO)

PREREQUISITES: BIO 100, 100L

Introduction to the structure and function of the organ systems of the human body.

288 Three Credits

288L One Credit

HUMAN PHYSIOLOGY WITH LAB (SO)

PREREQUISITES: PED 287, 287L

Introduction to the function, regulation, and the integration of organs and organ systems of the human body.

300 Two Credits

ADVANCED FITNESS THROUGH WEIGHT TRAINING (SO)

PREREQUISITE: PED 200

Advanced experiences while working with the pull-up trainers, Olympic free weights, and the variable resistance machines.

325 Three Credits

LIFEGUARD TRAINING (SO)

Study of the American Red Cross Senior Life Saving course outline. Satisfactory completion leads to Red Cross certification.

335 Two Credits

TECHNIQUES AND SKILLS IN HEALTH AND PHYSICAL EDUCATION (SO)

PREREQUISITES: PED 158, 159, 261, 262, 271, 272

This course is designed to assist preservice teachers of physical education in identifying developmental sequences for learning skills and teaching techniques in individual/dual and team sports that can be used to develop and implement effective lesson and unit plans for PreK-12 public school children.

350 Three Credits

CURRICULUM AND INSTRUCTIONAL PROCEDURES IN ELEMENTARY HEALTH AND PHYSICAL EDUCATION (EE)

PREREQUISITES: PED 158, 159, 253, 261, 262, 271, 272, 356, 365, 477; Pass PRAXIS I

The methods, materials and techniques of presenting physical education to elementary school students. Emphasis is placed on cumculum development, unit and lesson planning, developmentally appropriate physical activities, teaching methodology, and legal liability. Candidates will gain a knowledge of assessment and its relationship to the enhancement of student learning and how the results of assessments are used to monitor and report student achievement.

356 Three Credits

KINESIOLOGY (SO)

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 Three Credits

ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION PROGRAMS (FO)

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 Three Credits

CURRICULUM AND INSTRUCTIONAL PROCEDURES IN SECONDARY HEALTH AND PHYSICAL EDUCATION (SO)

PREREQUISITES: PED 158, 253, 261, 271, 262, 350, 356, 365, 477; Pass Praxis I.

Study of the methods and procedures for delivering instruction to students in secondary schools. Emphasis is placed on experiencing and analyzing appropriate physical activities, designing unit plans and lesson plans, and implementing instructional programs. Attention is focused on the development of flexible programs based on pupil needs, interests and capacity.

361 One Credit

ATHLETIC COACHING AND OFFICIATING (FO)

PREREQUISITES: PED 158, 159, 261, 262

Study of the fundamentals, techniques, and strategies of coaching and officiating team and individual sports.

362 Two Credits

ATHLETIC COACHING AND OFFICIATING

PREREQUISITES: PED 158, 159, 261, 262, and 361

This course is designed to develop a general understanding of coaching and officiating as it relates to ethics, values, behavior, organization and management. It is further designed to assist in the development of a philosophy of coaching and officiating. The student will be exposed to a variety of activities, which will, hopefully provide a high level of exposure, satisfaction and individual appreciation for the various responsibilities associated with coaching.

365 Three Credits

ADAPTED PHYSICAL EDUCATION (EE)

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 (EE)

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 TASK ANALYSIS (FO)

PREREQUISITE: PED 440

This is the first of two teacher preparation courses. This course provides methods of teaching the required classroom segment of driver education.

444 Three Credits

PRINCIPLES AND METHODS OF CLASSROOM AND IN-CAR INSTRUCTION (EE)

PREREQUISITE: PED 441

This is the second of two teacher preparation courses. This course provides methods of teaching the required in-car segment of driver education.

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 (EE)

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.

495 Three Credits

INTERNSHIP (LOCAL)

Practicum experiences at a local approved setting in fitness, athletic/sport industry. Requirements a minimum of 400 contact hours with supervision.

496 Twelve Credits

INTERNSHIP

Practicum experiences with supervised field work conducted at an approved fitness related agency by the department which allows an opportunity for the student to utilize knowledge, skills, and training gained in the classroom.

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

PHYSICS (PHY)

100L One Credit

PHYSICAL SCIENCE LABORATORY (E)

COREQUISITE: SCI 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 SCI 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, sound, electricity, magnetism, light, and modern physics. (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, electro-acoustics, 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 (SI)

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.

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 One Credit 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. (Two 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.

445 Three Credits

MATHEMATICAL METHODS FOR PHYSICAL SCIENCES II (FO)

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.

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 (FO)

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 (SI)

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 (SI)

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 (SI)

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 (SI)

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 (SI)

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. The course also 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 sub-systems of state and local government. There is a 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 (SI)

METROPOLITAN AND REGIONAL DEVELOPMENT

Analysis of the impact of metropolitan growth on municipalities, with a 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, with particular emphasis on the relationship of special interest groups with the party system.

323 Three Credits Each COMPARATIVE GOVERNMENT (SI)

Study of the organization, structure, and politics of the major European governments, with special emphasis on the political systems of Great Britain, France, West Germany, and the Former Soviet Union.

325, 326 Three Credits AMERICAN FOREIGN POLICY (SI)

Study of the background, responsibilities, and consequences of United States foreign policy from 1787 to the present. Special emphasis is based 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. This course 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 (SI)

Critical analysis of American political ideas in the areas of law, government, and the enduring political problems of liberty and authority, oligarchy and democracy, from Puritanism to the present. Emphasis is placed 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 (EE)

Course should be taken in sequence
PREREQUISITE: POS 332

Study of the basic principles of the American constitutional system. Emphasis is placed on the judicial interpretation and application of these principles in construing the powers of the government and the rights of individuals. These courses examine the historical background of major federal court decisions.

340 Three Credits URBAN BELIEF SYSTEMS (SI)

Examination of beliefs, values, and attitudes relevant to political processes in urban areas relative to physical development, change, and distribution of resources.

345 Three Credits STATISTICS AND DATA PROCESSING FOR POLITICAL ANALYSIS (EE)

Examination of parametric and non-parametric 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 (as applied to research problems).

350 Three Credits ORGANIZATION THEORY AND BEHAVIOR (SO)

Examination of the structure and function of public organizations, with emphasis on theories of administrative hierarchies and evaluation of bureaucracies.

360 Three Credits INTERNATIONAL RELATIONS (FO)

Focus on humans as a part of nature, acting in their political environment over time. This course examines relationships among nations relative to conflicts, treaties, economic integration, etc.

422 Three Credits PUBLIC OPINION AND PROPAGANDA (SI)

Intensive study of the nature, measurement, and function of public opinion. Special emphasis is placed 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/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 to the solution of problems in urban areas.

442 Three Credits INTERNATIONAL LAW (SO)

Intensive study of the substantive content of the law of international relations. Special emphasis is placed on problems of enforcement of laws, etc.

443 Three Credits ADMINISTRATIVE LAW (SO)

Introduction to the American legal system using a case study approach.

451 Three Credits PUBLIC PERSONNEL ADMINISTRATION (FO)

PREREQUISITE: POS 350

Focus is placed on the recruitment, examination, placement, remuneration, morale, retirement, training, and other related issues which impact public service.

461 Three Credits

INTERNATIONAL ORGANIZATION (SI)

PREREQUISITE: POS 360

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 (SI)

PREREQUISITE: POS 360

Survey of the Near East, focusing on its relation to the struggle for international ascendancy of the Western powers. Emphasis is placed on the nineteenth and early twentieth centuries, as well as the contemporary period.

463 Three Credits

POLITICS OF AFRICAN NATIONS (SI)

Examination of the resolution of conflict, and the promotion of survival, of the independent nations south of the Sahara Africa, through comparison of political ideologies and through case studies of individual nations. There is an analysis of traditional African systems and the various colonial systems of the new governments.

466 One/Three Credits

READINGS 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 is placed on the depth of various perspectives.

467 Three Credits

INTRODUCTION TO NON-WESTERN POLITICS (SI)

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. Class discussions will include an 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

493A Three Credits

PUBLIC ADMINISTRATION INTERNSHIP (E)

PREREQUISITES: Organization Theory and Behavior (POS 350) and Public Personnel Administration (POS 451)

Internship in a private or governmental agency. See faculty Public Administration Internship Coordinator for specific requirements.

494 Six Credits

494A Three Credits

PRE-LAW INTERNSHIP (E)

Internship offers an invaluable opportunity to gain knowledge, skills and exposure to the private and/or public legal profession. See faculty Pre-law Internship Coordinator for specific requirements.

499 Four Credits

SENIOR PROJECT (SI)

Selected research topic includes collection, analysis, and presentation of an organized research effort. The research topic chosen must be approved by instructor.

510 Three Credits

POLITICS AND ECONOMICS OF AGING (SI)

Examination of the implications for the political system concerning the growing numbers of elderly people in the population of the United States. Surveys, research, and analysis from a local, state, and national legislative perspective is included in the course content. Also, legislative and economic impact research will be conducted.

570 Three Credits

SEMINAR IN LAW AND POLITICS (SI)

Focus on contemporary problems in legal and governmental spheres. Preparation of research paper is required.

PSYCHOLOGY (PSY)

210 Three Credits

INTRODUCTION TO PSYCHOLOGY (E)

Introduction to the scientific study of human behavior and mental processes. Emphasis on theoretical approaches, concepts, principles, and research findings. Overview of selected areas in psychology that provides the foundation for further study in psychology. Topics include critical thinking, neuroscience, nature/nurture, consciousness, motivation, work, stress and health, and psychological disorders.

211 Three Credits

BASIC PRINCIPLES OF PSYCHOLOGY (EE)

PREREQUISITE: PSY 210

Overview of selected topics in psychology as a continued introduction to psychology begun in PSY 210. Emphasizes theoretical approaches, concepts, principles, and research findings. Topics include sensation, perception, learning, memory, thinking, language, intelligence, personality, therapy, and social psychology.

220 Three Credits

CHILD PSYCHOLOGY (SI)

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 (SI)

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)

Comprehensive study of the psychological development of the individual, including linguistic, social, personality, and cognitive aspects of development from conception through late adulthood.

230 Three Credits

EDUCATIONAL PSYCHOLOGY (SI)

Introduction to the psychological principles relevant to the processes of education and the theory of educational institutions.

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 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

BEHAVIOR ANALYSIS (SI)

PREREQUISITE: PSY 210

Introduction to the concepts involved in behavioral change and in the planning of effective intervention strategies. Focuses on various methods of observing and measuring behavior with emphasis on behavioral task analysis.

313 Three Credits

BEHAVIOR MANAGEMENT (SI)

PREREQUISITES: PSY 210, PSY 312

Study of learning and behavioral programs. Emphasis on learning theory applications including contingency contracting, token economies, modeling, and similar techniques.

322 Three Credits

PSYCHOLOGY OF EXCEPTIONAL CHILDREN (SI)

PREREQUISITE: Consent of Instructor

Study of the unique and typically abnormal psychosocial 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)

Examination of the African-American person with a focus on the unique historical and current social influences on African-American personality development and functioning.

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 (SI)

PREREQUISITES: PSY 210, PSY 211, BIO 100

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 (SI)

PREREQUISITE: Consent of Instructor

Supervised projects selected to suit the needs of the individual student.

390 Three Credits

FUNDAMENTALS OF LEARNING (SI)

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

READINGS IN PSYCHOLOGY (SI)

PREREQUISITE: Consent of Instructor

Directed readings 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 (SI)

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 (SI)

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 (SI)

PREREQUISITES: PSY 280

Survey of major principles and mechanisms of drug action including basic pharmacological principles, basic nervous system function and neurochemistry, 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 Three Credits

PERCEPTION (SI)

PREREQUISITE: Consent of Instructor

Intensive examination of empirical findings, experimental techniques, and theories related to the study of sensory and perceptual processes.

480 Three Credits

MOTIVATION AND EMOTION (SI)

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 Three Credits

PSYCHOLOGY SEMINAR (EE)

PREREQUISITE: PSY 210, PSY 211, PSY 270, PSY 360

Presentation of recent experimental and theoretical advances in selected areas of psychology. Class projects prepared and presented in a seminar format.

495 Three to Six Credits

PRACTICUM IN PSYCHOLOGY (EE)

PREREQUISITE: PSY 210, PSY 211, PSY 270, PSY 360

Supervised field experience in an applied setting, i.e., a mental health agency or other appropriate institution.

573 Three Credits

THE PSYCHOLOGY OF ETHNIC MINORITIES (SI)

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 Three Credits

INTRODUCTION TO THE BIBLE: OLD TESTAMENT (FS)

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 Three Credits

INTRODUCTION TO THE BIBLE: NEW TESTAMENT (SO)

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 Three Credits

HISTORY/THEOLOGY OF PROTESTANTISM (SI)

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 Three Credits

MAJOR WORLD RELIGIONS (SS)

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 Three Credits

MAJOR WORLD RELIGIONS (SI)

Intensive research pertaining to a selected area of religious thought and expression, either contemporary or ancient.

220 Three Credits

SYNOPTIC GOSPELS (SI)

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 Three Credits

LIFE AND LITERATURE OF PAUL (SS)

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 Three Credits

HISTORY AND THEOLOGY OF JUDAISM (SI)

Study in the religious dimension of the Judaic culture, with emphasis on historical, social, and theological perspectives.

330 Three Credits

HISTORY AND THEOLOGY OF THE BLACK CHURCH (SI)

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 Three Credits
SOCIETY AND CHRISTIAN ETHICS (SI)

Examination of ethical issues confronting society and the Christian responses. Consideration given to philosophical and theological perspectives.

410 Three Credits
PSYCHOLOGY OF RELIGION (SI)

Introduction to selected themes, issues and problems in the interaction of religion and psychology. Differing points of view considered.

420 Three Credits
SOCIOLOGY OF RELIGION (SI)

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 Three Credits
BASIC ISSUES OF RELIGIOUS THOUGHT(SI)

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 Three Credits
CONTEMPORARY ESCHATOLOGY (SI)

Perennial themes in ancient and modern cultures which take into account individual, societal and cosmic appearances and views of reality, both present and futuristic.

SCIENCE (SCI)

100 Three Credits
LIFE IN THE UNIVERSE

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.

101 Three Credits

SCI 101 INTRODUCTION TO PHYSICAL SCIENCE (E)

PREREQUISITES: ENG 101, MTH 103

An introductory science course for undergraduate non-science majors designed for students to gain knowledge of selected facts, principles and the scientific method. Survey of the unity of physical science (chemistry, physics, and earth science) and the place of science in our modern world.

381 Three Credits

SCIENCE FOR TEACHERS (EE)
PREREQUISITE: SCI 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 Three Credits
CURRICULUM AND INSTRUCTIONAL PROCEDURES IN MATHEMATICS (EE)

PREREQUISITE: SED 381 and completion of all junior level mathematics courses

Study of theories, strategies for effective instruction, and contemporary assessment practices that support mathematics learning in grades 6-12.

210 Three Credits
KEYBOARDING III (E)

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 Three Credits
SEMINAR IN ASSESSMENT AND EVALUATION (E)

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 Three Credits
BUSINESS SYSTEMS AND PROCEDURES (E)

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 Three Credits**
FOUNDATIONS OF SECONDARY SCHOOL METHODS AND MANAGEMENT OF INSTRUCTION (EE)

PREREQUISITE: Passing Praxis I score and 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 Three Credits**
TEACHING METHODS OF MATHEMATICS/SCIENCE/TECHNOLOGY IN SECONDARY SCHOOLS (SO)

PREREQUISITES: Passing Score on Praxis I/SAT/ACT

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.

387 Three Credits
CURRICULUM AND INSTRUCTIONAL PROCEDURES IN TEACHING ENGLISH IN SECONDARY SCHOOLS (SI)

PREREQUISITE: Junior or Senior Standing

Study of materials and methods for teaching, integrating, and assessing english literature, language, grammar and composition with attention to current research and theories that inform best practices in language arts instruction.

388F Three Credits
CURRICULUM AND INSTRUCTIONAL PROCEDURES IN TEACHING FRENCH IN SECONDARY SCHOOLS (SI)

PREREQUISITE: Junior or Senior Standing; Pass Praxis I

Study of materials and methods for teaching, integrating, and assessing French language, literature, grammar, and composition with attention to current research and theories that inform best practices in foreign language instruction.

388S Three Credits
CURRICULUM AND INSTRUCTIONAL PROCEDURES IN TEACHING SPANISH IN SECONDARY SCHOOLS (SI)

PREREQUISITE: Junior or Senior Standing; Pass Praxis I

Study of materials and methods for teaching, integrating, and assessing Spanish language, literature, grammar, and composition with attention to current research and theories that inform best practices in language instruction.

***390 Three Credits**
SECONDARY SOCIAL STUDIES METHODS

PREREQUISITES: Passing Score on Praxis I/SAT/ACT

Development of tools and strategies necessary to achieve high standards of learning for teaching social studies courses in secondary classrooms.

SED 405 Three Credits
READING IN THE CONTENT AREAS

Skills in this area shall be designed to impart an understanding of comprehension skills in all content areas, including a repertoire of questioning strategies, summarizing and retelling skills, and strategies in literal, interpretive, critical, and evaluative comprehension, as well as, the ability to foster appreciation of a variety of literature and independent reading.

420 Three Credits
EDUCATIONAL TECHNOLOGY (EE)

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.

488 Three Credits

SCHOOL COMMUNITY RELATIONS (EE)

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 Three Credits
CURRICULUM AND INSTRUCTIONAL PROCEDURES FOR BUSINESS AND INFORMATION TECHNOLOGY (FO)

PREREQUISITES: Prerequisites: EDU 201, EDU 381, all sophomore level courses, required PRAXIS I, SAT, or ACT scores

This course focuses on curriculum and instructional procedures for business, office technology, and computer-related subjects. Other topics integrated into this course include communications, assessment techniques, school and family interactions, child abuse awareness, and the Virginia Standards of Learning (SOLS). Each student will be required to complete an observation and participation experience in a public school setting for 20 clock hours. Also, students will be required to complete a job shadowing or work experience for 10 hours in an approved business environment.

499 Twelve Credits
DIRECTED TEACHING IN SECONDARY SCHOOLS (E)

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 309 and 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; HED 100; SOC 101

COREQUISITES: SWK 300 and 312

Examination of the dynamics of multi-level/social systems, as they have an impact on the development of individuals from adolescence thorough 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

COREQUISITES: SWK 300 and 309

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)

PREREQUISITES: SWK 309 and 312

COREQUISITE: SWK 319

This course is the second in the Generalist Practice Sequence. The course is designed to teach B.S.W. 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, sociocultural, 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)

PREREQUISITE: 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 One Credit Each

PRACTICUM SEMINAR I and II (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 I and II (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.

498A/499B Zero Credits
B.S.W. FIELD PRACTICUM ORIENTATION I AND II

PREREQUISITE: All previously required courses and concurrent enrollment in B.S.W. Field Practicum

This is an orientation course designed to provide the undergraduate social work field practicum student with the

knowledge, values and skills necessary to prepare and navigate a successful and advanced field education experience. The purpose of this course is to help students understand their role, function and responsibilities as practicum students. In addition, this course will outline the relationship of the practicum agency to the field experience and explore the importance of ethical and professional behavior.

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)

PREREQUISITE: SOC 225

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 nonparametric 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.

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, Alarcon, 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.

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)

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.

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 post-natally. 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

CURRICULUM AND INSTRUCTIONAL PROCEDURES IN TEACHING STUDENTS WITH MILD DISABILITIES (EE)

Skills in this area shall contribute to an understanding of the principles of learning; selection and use of materials, evaluating pupil performance, and teaching methods appropriate for exceptional students, including gifted and talented and those with disabling conditions.

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.

410 Three Credits

INTRODUCTION TO EXCEPTIONAL INDIVIDUALS (EE)

This course provides an overview of the foundation for educating individuals with disabilities and special gifts. It includes philosophical perspectives, developmental differences, and cultural influences as they relate to individuals in their home, school, and community. A twenty-hour clinical experience is required.

440 Three Credits

COLLABORATION PROCEDURES (EE)

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).

445 Three Credits
TRANSITION PROCEDURES (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).

499 Six Credits
DIRECTED TEACHING (EE)

This course is designed to provide a period of supervised teaching during which the candidate takes increasing responsibility for a given group of individuals with mild disabilities for a definite period of time. It is organized on a semester basis with emphasis on elementary,

middle, or secondary school experiences to be supplemented with a professional seminar, and other ancillary educational opportunities. The candidate will assess students, plan and write instructional interventions, deliver instruction, monitor and document progress, and assume all other classroom duties of the cooperating teacher. Placements will provide candidates with 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, sociopsychological 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 lecturers 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.

THEATRE (DRM)

113 Three Credits

THEATRE MOVEMENT I (SI)

Development of performer's physical conditioning and awareness of expressive artistic movement.

114 Three Credits

INTRODUCTION TO THEATRE (FO)

Survey of theatrical forms, techniques, and practices. Reading of selected plays. Attendance at Norfolk State Players' productions required. Lab included.

120 Three Credits

STAGECRAFT I (FO)

Study of practical and theoretical knowledge of scenery, lighting, and sound design for the Theatre. Lab included.

123 Three Credits

THEORY AND TECHNIQUES OF ACTING (SI)

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 Three Credits

INTERMEDIATE ACTING

PREREQUISITE: DRM 123

Study of the physical and vocal demands involved in the creation of a role for the stage.

211 Three Credits

COMMUNITY THEATRE

Study of the history, organization, and production strategies for operating a community theatre.

212 Three Credits

IMPROVISATION FOR THE THEATRE (O)

Development of the performer by encouraging spontaneity, including group ensemble work through improvisation.

213 Three Credits

THEATRE MOVEMENT II (SI)

Study of the physical demands involved in various acting styles. Emphasis on movements for classical acting style.

219 Three Credits

AFRICAN-AMERICAN DRAMA (FO)

Study of major African-American, African, and Caribbean playwrights and their plays.

220 Three Credits

STAGE CRAFT II (SI)

PREREQUISITE: DRM 120

In-depth studies of technical direction, carpentry, lighting, properties, sound, welding, and special effects. Advanced study of technical theatre.

226/526 Three Credits

CHILDREN'S THEATRE (SO)

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 Three Credits

CREATIVE DRAMATICS

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 Three Credits

STAGE MANAGEMENT (SO)

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 Three Credits

THEATRE MANAGEMENT (SO)

Study of principles and techniques of organizing and managing theatre production programs in educational, community, and commercial settings.

310 Three Credits

STAGE MAKE-UP (FO)

Study of stage make-up techniques/designs, practices and equipment. Demonstration of make-up design for an experimental production required.

315/515 Three Credits
HISTORY OF THEATRE I (FO)

Study of history of the theatre from beginning to 1650.

316/516 Three Credits
HISTORY OF THEATRE II (FO)

PREREQUISITE: DRM 315/515

Study of history of theatre in Europe and America 1650 to the present.

320/520 Three Credits
LIGHTING DESIGN (SO)

Emphasis on sources and control of light, equipment, and light design.

321/521 Three Credits
SCENERY DESIGN (SO)

PREREQUISITE: DRM 120

Experience with floor plans, elevations, models, and perspective designs for theatrical events. Lab included.

324/524 Three Credits
ADVANCED ACTING THEORY (SI)

PREREQUISITE: DRM 200

Focus on acting, theories, advanced techniques in acting, and styles of acting.

328 Three Credits
CONTEMPORARY DRAMA (SO)

PREREQUISITE: DRM 219

Detailed study of the plays, playwrights, and dramatic movements of the post-World War II period.

400/500 Three Credits
COSTUME HISTORY (SI)

Study of costume history of Egyptian to modern times. Emphasis on design and construction of costumes for shows. Lab included.

410/510 Three Credits
COSTUME DESIGN (SI)

PREREQUISITE: DRM 400

Study of elements of design in relationship to the planning and constructing of production design concepts. Lab included.

415 Three Credits
THEATRE DESIGN WITH COMPUTER

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 Three Credits
INTERPRETERS THEATRE (SI)

Emphasis on script analysis, voicing and staging characters, compiled scripts, and literature as theatre.

425/525 Three Credits
DIRECTION OF PLAYS (SI)

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 Three Credits
PLAY WRITING (SI)

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 Three Credits
ADVANCED TECHNICAL THEATRE

PREREQUISITES: DRM 320/520, 321/521

Advanced design theory and stage practice. Design of stage lighting, scenery, and sound.

436 Three Credits
SOUND DESIGN

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 Three Credits
RESEARCH SEMINAR (SI)

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 Three Credits
DRAMATIC THEORY AND CRITICISM (SI)

PREREQUISITE: DRM 324/524

Major critical theories from Aristotle to present.

TOURISM AND HOSPITALITY 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 Credits, 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.

49 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 develop 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.

URBAN PLANNING (URP)

192 Three Credits
INTRODUCTION TO URBAN PLANNING (SO)

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/development of cities and cities' hinterlands.

201 Three Credits
PLANNING THEORY (SI)

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 evolutionary process of urban phenomena.

285 Three Credits
URBAN LAND USE PLANNING (SI)

Study of the 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 is placed on the evaluation and discussion of various development projects and the public's role in influencing land use development decisions.

292 Three Credits
PLANNING LAW (FO)

Survey of law cases, legislation, and terminology relevant to urban planning issues. Exploration of the social, economic, and environmental interrelationships of the real estate development industry, local government, and the public. Emphasis is placed on the dynamic role of law in planning processes and procedures.

301 Three Credits
REGIONAL PLANNING AND THE ENVIRONMENTS (SI)

Study of an evolutionary perspective of regional planning on a metropolitan, national, and international level. Emphasis is placed on discussions relative to population, resource distribution, and economic issues. Examination of the patterns of growth and under-development 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 Three Credits
URBAN TRANSPORTATION (SI)

Analysis of the role of transportation and transportation systems in the movement of people, goods, and services. Emphasis is placed on transportation as 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 Three Credits
PLANNING DESIGN, TECHNIQUES AND CONCEPTS (SI)

Overview of the history and process of urban design. Focus is placed 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 in the urban design process.

355 Three Credits
URBAN ECONOMIC DEVELOPMENT PLANNING (SI)

Study of the economic vitality of established central cities in conjunction with regions within metropolitan areas. Primary emphasis is placed on the internal structure of urban areas, including the dynamics of central city economics. There is an analysis of the dependence of residents upon unstable private capital decisions 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 Three Credits
HUMAN SERVICES PLANNING AND EVALUATION (SI)

Study of the multi-disciplinary nature of planning and the evaluation of human services, including such elements as social services, physical and mental health care, housing, substance abuse programs, ; informational services, etc. There is an evaluation of the effects of various human services programs on the quality of life of the public, in general, and on specific populations needing special services or resources.

365 Three Credits
HUMAN SERVICES PLANNING AND EVALUATION (SI)

Study of the multi-disciplinary nature of planning and the evaluation of human services, including such elements as social services, physical and mental health care, housing, substance abuse programs, ; informational services, etc. There is an evaluation of the effects of various human services programs on the quality of life of the public, in general, and on specific populations needing special services or resources.

380 Three Credits
HOUSING AND COMMUNITY DEVELOPMENT (SI)

Introduction to both the rationale and techniques for providing assistance in the community development and city development process. There is an examination of the myriad of institutional and market forces, as well as socioeconomic and demographic factors which affect the supply and the demand for housing. Emphasis is placed on the concepts of citizen participation, self-direction, and self-help in real and simulated neighborhood revitalization efforts.

ADMINISTRATORS

EXECUTIVE ADMINISTRATION

MOORE JR., EDDIE N. (2013) Interim President and CEO. MBA, University of Pittsburgh. B.S., Pennsylvania State University.

BOSTON, PAMELA (2006) Legal Counsel and Special Assistant Attorney General. J.D., Marshall Wythe School of Law, College of William and Mary. B.A., Bennett College. State Licensure and Admission to Practice in Virginia since 1977.

DELOATCH, SANDRA (1972) Provost and Vice President for Academic Affairs. Ph.D., Indiana University. M.S., University of Michigan. M.S., The College of William and Mary. B.S., Howard University.

ELLIS, ERNEST (1982) Internal Auditor. B.S., Norfolk State University. Further study: University of District of Columbia, University of Kentucky at Lexington. University of Nebraska at Omaha. C.I.A. (Certified Internal Auditor) and C.F.E. (Certified Fraud Examiner).

FONTAINE, DEBORAH (2010) Interim Vice President for University Advancement. Ph.D., Walden University. MBA, B.S., Hampton University.

HUNTER, GERALD (2013) Vice President for Finance and Administration. MBA, Murray State University. B.S., Knoxville College. Certificate – Management Development Program – Higher Education at Harvard University.

WILLIS, EDWARD (2011) Vice President for Student Affairs. B.A., Montclair State College. M.Ed., Rutgers University. Further study: University of Toledo.

ASSOCIATE/ ASSISTANT VICE PRESIDENTS

COLEMAN, CLARENCE (1971) Vice Provost, Office of the Provost and Professor of Physics. D.Ed., Pennsylvania State University. M.S., B.S., Southern University. Further study: University of Notre Dame; Michigan State University. CFRM, Indiana University Center on Philanthropy.

FULLER, MILDRED K. (1987) Vice Provost, Office of the Provost and Professor of Nursing and Allied Health. Ph.D., Old Dominion University. M.Ed., Tuskegee University. B.S., North Carolina Central University. Certification in Medical Technology, Cambridge (Massachusetts) Hospital School of Medical Technology.

GORDON, KARLA J. AMAYA (2014) Assistant Vice President of Finance/University Controller. M.S.T., Bentley College. B.A., Radford University.

KASHIRI, ANTON (2012) Associate Vice President for Facilities Management. B.S.C., Morris Brown College. B.S., Tuskegee University.

SASS, TERRICITA (1988) Assistant Vice President for Enrollment Management. Ph.D., Capella University. M.A., Norfolk State University. B.B.A., Francis Marion University.

Harvard University, Institute for Management and Leadership.

WALKE, JAMES T. (2012) Assistant Vice President, Institutional Research and Planning. Ph.D., William and Mary. B.A., University of Virginia.

WINGARD, JULIA (2012) Associate Vice President for Student Life. M.Ed., The University of Dayton. B.S., The University of Dayton.

DEANS

ANDERSON, BELINDA C. (2011) Dean, College of Liberal Arts, and Professor of Interdisciplinary Studies. Ed.D., Virginia Tech. M.S., Radford University. B.S., Radford University.

BOGGER, TOMMY (1965) Interim Dean, Library Services, Director of Archives and Special Collections and Professor, Lyman Beecher Brooks Library. Ph.D., University of Virginia. M.A., Carnegie-Mellon University. B.A., Norfolk State University.

JOHNSON, TRACCI (2013) Dean of Students, M.B.A., Temple University. B.A., The University of Toledo.

JONES, DOROTHY (1993) Dean, School of Extended Learning and Professor of Business. Ph.D., M.A., The Ohio State University. B.S., Albany State College. Harvard University, Institute for Management and Leadership.

LAWS, PAGE (1987) Dean, Honors College and Professor of English and Foreign Languages. Ph.D., M.Phil., Yale University. B.A., Wellesley College.

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