Courses

Courses numbered 100-199 are freshmen level, 200-299 are sophomore level and 300 and above are junior/senior level.

Accounting

Chair: Associate Professor Poulson
Professor: Cassill
Assistant Professors: Amoruso, Chiang, Cox, Nunez, Scott
Lecturer: Weller

Accounting involves measuring business activities and communicating this information to investors, creditors and other decision makers who use it to make sound, informed financial decisions. This practice serves to encourage investment activity, which in turn creates jobs and helps the economy to grow.

Elon's program leading to the Bachelor of Science in Accounting includes the central topics of financial and managerial accounting plus an introduction to taxation, auditing and accounting information systems. The accounting program prepares the graduate to be a professional accountant in business, government, nonprofit and other organizations. This degree can also serve as a basis for graduate study in accounting and other fields, including business administration and law.

Students wishing to obtain certification as a CPA and practice in the field of public accounting must meet the education requirements of the state issuing the certification. Most states require 150 hours of college credit; however, the content of the 150 hours may vary by state. Through careful planning, it is possible to complete the 150-hour requirement for most states by the time the student completes the degree. Interested students should work closely with their faculty advisor to plan a course of study that leads to completing the required 150 semester hours for North Carolina or for other states.

At least 50% of the accounting credit hours required for the Bachelor of Science degree must be earned at Elon.

A major in Accounting requires the following courses:

Select one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 116</td>
<td>Applied Calculus</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CIS 211</td>
<td>Management Information Systems</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 111</td>
<td>Principles of Economics</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 203</td>
<td>Statistics for Decision Making</td>
<td>4 sh</td>
</tr>
<tr>
<td>BUS 221</td>
<td>Legal and Ethical Environment of Business</td>
<td>4 sh</td>
</tr>
<tr>
<td>BUS 202</td>
<td>Business Communications</td>
<td>4 sh</td>
</tr>
<tr>
<td>MKT 311</td>
<td>Principles of Marketing</td>
<td>4 sh</td>
</tr>
<tr>
<td>MGT 323</td>
<td>Principles of Management &amp; Organizational Behavior</td>
<td>4 sh</td>
</tr>
<tr>
<td>FIN 343</td>
<td>Principles of Finance</td>
<td>4 sh</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>BUS 465</td>
<td>Business Policy</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Principles of Financial Accounting</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 212</td>
<td>Principles of Managerial Accounting</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 331</td>
<td>Intermediate Accounting I</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 332</td>
<td>Intermediate Accounting II</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 336</td>
<td>Cost Accounting</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 341</td>
<td>Fundamentals of Income Taxation</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 351</td>
<td>Accounting Information Systems</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 456</td>
<td>Auditing</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following: 1-4 sh
- LSB 381 Internship in Business (see Love School of Business courses)
- ACC 481 Internship in Accounting

**TOTAL 73-76 sh**

Additional accounting courses that may be taken as electives include:
- ACC 277 Winter Term Study Abroad
- ACC 365 Computerized Accounting (Winter Term)
- ACC 442 Advanced Taxation
- ACC 451 Advanced Financial Accounting
- ACC 471 Seminar: Special Topics
- ACC 482 Business Law and Accounting Ethics
- ACC 491 Independent Study
- ACC 499 Independent Research in Accounting

*A minor in Accounting requires the following courses:*
- ACC 201 Principles of Financial Accounting 4 sh
- ACC 212 Principles of Managerial Accounting 4 sh
- BUS 202 Business Communications 4 sh
- ACC 331 Intermediate Accounting I 4 sh

Choose two electives from the following: 8 sh
- ACC 277 Winter Term Study Abroad
- FIN 343 Principles of Finance
- ACC 332 Intermediate Accounting II
- ACC 336 Cost Accounting
- ACC 341 Fundamentals of Income Taxation
- ACC 365 Computerized Accounting (Winter Term)
- ACC 499 Research

**TOTAL 24 sh**

**ACC 150. PERSONAL FINANCIAL PLANNING 4 sh**

This course provides basic tools and understanding to manage one’s personal finances. Topics include cash vs. credit cards, leasing vs. buying a car, renting vs. buying a home, the
role of insurance in financial planning, retirement planning and much more. No prerequi-
site. Offered Winter Term.

ACC 201.  **PRINCIPLES OF FINANCIAL ACCOUNTING**  
4 sh  
In this introduction to the financial reporting process, study emphasizes the accrual basis of 
accounting. Students learn to prepare and interpret income statements and balance sheets, 
analyze business transactions and determine the effects of transactions on assets and equities. 
Offered fall, winter and spring.

ACC 212.  **PRINCIPLES OF MANAGERIAL ACCOUNTING**  
4 sh  
Students gain an overview of the ways accounting information helps managers as they plan, 
develop control procedures and make decisions for their organizations. The course also 
covers the concepts of cost behavior, cost-volume-profit analysis and the preparation of 
budgets. Prerequisite: ACC 201. Offered fall and spring.

ACC 331.  **INTERMEDIATE ACCOUNTING I**  
4 sh  
Intermediate accounting begins an in-depth study of generally accepted accounting prin-
ciples and their theoretical basis. Students explore the contents of and interrelationships 
among the balance sheet, income statement and statement of cash flows, along with tech-
niques for analyzing and correcting errors. Some of the more important standards of the 
Financial Accounting Standards Board are included. Prerequisites: ACC 212 and BUS 202. 
Offered fall and spring.

ACC 332.  **INTERMEDIATE ACCOUNTING II**  
4 sh  
This continuation of the in-depth study of financial accounting emphasizes intangible 
assets, acquisition of property, current and long-term liabilities and stockholders’ equity. 
Prerequisite: ACC 331 and CIS 211. Offered fall and spring.

ACC 336.  **COST ACCOUNTING**  
4 sh  
In cost accounting, students will examine methods for gathering and analyzing produc-
tion cost data, which managers use to plan, budget and set prices for their products, with 
emphasis on the job order costing, process costing and standard costing methods and the 
interpretation of data produced by each system. Prerequisites: ACC 201 and 212. Offered 
fall and spring.

ACC 341.  **FUNDAMENTALS OF INCOME TAXATION**  
4 sh  
This introduction to the structure of the federal income tax system emphasizes the theories, 
procedures and rationale associated with the taxation of individuals. Prerequisite: ACC 331. 
Offered fall and spring.

ACC 351.  **ACCOUNTING INFORMATION SYSTEMS**  
4 sh  
This course provides students an overview of accounting information systems, including 
an understanding of the information environment, organizational structures, evolution 
of information system models, role of the accountant, financial reporting systems, elec-
tronic commerce, ethics, fraud and internal control. A strong emphasis is put on internal 
controls and business transaction processing systems. The inputs, outputs and structure of 
the systems will be examined. Prerequisite: CIS 211 and ACC 212. Enrollment is restricted 
to students majoring or minoring in accounting. Offered fall.

ACC 365.  **COMPUTERIZED FINANCIAL ACCOUNTING**  
4 sh  
In this interesting and practical course, students will assume the role of owner of a simulated 
small business. Up-to-date accounting software will be used to keep the financial records. 
This hands-on experience will enhance the understanding of accounting and its essential 
role in the business world and, at the same time, provide a practical instruction in the use 
of modern Windows-based accounting software. Prerequisite: ACC 201. Offered Winter 
Term.

ACC 442.  **ADVANCED TAXATION**  
4 sh  
This course continues the study of special topics including corporations, capital gains and 
losses, estate and gift taxation, tax administration and tax research. Students will learn to
locate relevant information in regulations, revenue rulings and court cases. They will report their findings in the form of written reports and memoranda. Prerequisite: ACC 341.

**ACC 451. ADVANCED FINANCIAL ACCOUNTING 4 sh**
Continuing the in-depth study of financial accounting that began in Intermediate Accounting I and II, this course includes accounting for business combinations, with special emphasis on preparing consolidated financial statements for parent and subsidiary corporations. Accounting for governmental units and other not-for-profit organizations is also introduced. Prerequisites: ACC 331 and 332, or ACC 331 and concurrent enrollment in ACC 332.

**ACC 456. AUDITING 4 sh**
Study of auditing covers both theory and practice, including ethics, generally accepted auditing standards, internal accounting controls, auditors’ working papers, the components of audit risk, compliance testing and substantive testing. Prerequisite: ACC 332 and senior standing. Offered spring.

**ACC 471. SEMINAR: SPECIAL TOPICS 1-4 sh**
This upper-level seminar, an advanced study requiring active participation by students, consists of readings, problems, reports, discussions of current topics or preparation for professional examinations. May be conducted by departmental faculty or other resource persons. Prerequisite: Permission of instructor, may vary with topic.

**ACC 481. INTERNSHIP IN ACCOUNTING 1-4 sh**
An internship offers the student valuable experience in the field of accounting. Appropriate placement must be arranged by the student with the help and support of the faculty and other appropriate resources. Prerequisites: ACC 331 and junior standing.

**ACC 482. BUSINESS LAW AND ACCOUNTING ETHICS 2 sh**
This course is a study of selected topics from the Uniform Commercial Code and specifically addresses issues concerning accountants’ legal liability and ethical issues in accounting and financial reporting. Prerequisites: ACC 331 and BUS 221. Offered spring.

**ACC 491. INDEPENDENT STUDY 1-4 sh**

**ACC 499. RESEARCH 1-4 sh**
Students can engage in an undergraduate research study in collaboration with a faculty sponsor.

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**African and African-American Studies**

**Coordinator: Associate Professor Layne**

This program takes an interdisciplinary approach to the study of African and African-American experiences, connecting the past with the present. The program is highly recommended for students majoring in education, human service studies, political science, English, history, international studies, communications and other programs leading to work with multicultural communities. Through connected study, the student not only takes a fresh approach to learning, but also develops an individualized study plan.

The minor requires a minimum of 20 credit hours, including a capstone experience selected from a current group of courses approved by the African and African-American Studies Advisory Committee. To satisfy minor requirements, students must elect courses from at least two departments. At least one course must focus on the African experience and another on the African-American experience. Students who take a course that connects the African and African-American experiences may obtain approval from the program coordinator to have the course count in both areas.

Up to 12 semester hours of study abroad courses that emphasize African and African-American subject matter may count for the minor with the approval of the program coor-
A minor in African and African-American Studies requires the following courses:

Twenty semester hours selected from the following:  

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARH</td>
<td>African Art</td>
</tr>
<tr>
<td>ENG</td>
<td>African-American Literature before 1945</td>
</tr>
<tr>
<td>ENG</td>
<td>African-American Literature since 1945</td>
</tr>
<tr>
<td>ENG</td>
<td>The African Experience in Literature</td>
</tr>
<tr>
<td>ENG</td>
<td>African-American Novels</td>
</tr>
<tr>
<td>FRE</td>
<td>The Francophone World Outside the Hexagon</td>
</tr>
<tr>
<td>GEO</td>
<td>Africa’s People and Environments</td>
</tr>
<tr>
<td>HST</td>
<td>Modern Africa</td>
</tr>
<tr>
<td>HST</td>
<td>African-American History 1850-Present</td>
</tr>
<tr>
<td>MUS</td>
<td>History of Jazz</td>
</tr>
<tr>
<td>MUS</td>
<td>African-American Composers</td>
</tr>
<tr>
<td>MUS</td>
<td>The Music of Miles Davis</td>
</tr>
<tr>
<td>POL</td>
<td>Politics of Africa</td>
</tr>
<tr>
<td>SOC</td>
<td>Ethnic and Race Relations</td>
</tr>
<tr>
<td>AAA</td>
<td>Seminars in African and African-American Studies</td>
</tr>
<tr>
<td>AAA</td>
<td>Internship in African and African-American Studies</td>
</tr>
<tr>
<td>AAA</td>
<td>Independent Study</td>
</tr>
<tr>
<td>AAA</td>
<td>Research in African and African-American Studies</td>
</tr>
</tbody>
</table>

**TOTAL** 20 sh

AAA 361-9. **SEMINARS IN AFRICAN AND AFRICAN-AMERICAN STUDIES** 4 sh

Interdisciplinary seminars focus on modern scholarship in African and African-American Studies. Topics vary according to course theme.

AAA 481. **INTERNSHIP IN AFRICAN AND AFRICAN-AMERICAN STUDIES** 1-12 sh

Students gain valuable work experience in a nonprofit, business, governmental, legal, health services or any other relevant setting that encourages the exploration of a career related to African and African-American Studies. Students must establish experiential goals and reflect on the learning experience. Offered on an individual basis when suitable opportunities can be arranged. Approval must be obtained from the AAAS program coordinator prior to registration.

AAA 491. **INDEPENDENT STUDY** 1-4 sh

This course provides an opportunity for students to undertake in-depth study of individually chosen research topics in African and African-American Studies under the direction of a program-affiliated faculty member. Research projects may include a review of research literature, developing a research design, data collection and analysis, and a presentation or report when the study is completed. Prerequisites: A research proposal form completed in conjunction with the faculty member is required for registration. Students may register for one to four hours of credit per semester and may register for more than one semester of research for a total of eight hours of research credit towards the minor. Students must have a minimum 2.5 GPA, have completed 28 semester hours of undergraduate work, and secured approval from the faculty sponsor and AAAS program coordinator.
American Studies

Coordinator: Associate Professor C. Anderson

American Studies is the interdisciplinary study of American culture. The minor provides an opportunity for students to meld interests in the culture and history of the United States in a way that they cannot in single, traditional disciplines. Students will combine knowledge and methods from anthropology, art history, communications, history, law, literature, political science, sociology and other disciplines to interrogate multiple perspectives, recognizing how various individuals, peoples and groups help create American society as well as challenge its institutions, both within and outside the United States.

“America” is here understood to comprise not only the geographically and historically delineated space of the United States, but also the symbolic construction of “America” and “American.” As a result, students will understand “America” through a variety of methodological lenses, ranging from “myth and symbol,” the earliest methodology of American Studies that interrogated recurring themes in texts that reflected American culture, to contemporary combinations of multidisciplinary approaches. American Studies also provides a place for investigating American culture in the rest of the world and throughout history, ranging from its significance during the age of exploration to its current influence in the global experience.

The American Studies minor complements many majors and provides an opportunity for students to explore their intellectual interests beyond single disciplines. Students will find that the program provides an experience that supplements training for graduate and professional programs as well as various professions.

The minor requires a minimum of 24 semester hours.

A minor in American Studies requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS 210</td>
<td>Concepts in American Studies</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 121</td>
<td>United States History through 1865</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 122</td>
<td>United States History since 1865</td>
<td></td>
</tr>
<tr>
<td>HST 123</td>
<td>United States and North Carolina since 1865</td>
<td></td>
</tr>
<tr>
<td>ENG 223</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 224</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>Three approved 300-400 level courses</td>
<td>12 sh*</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL 24 sh

*Students, in consultation with their advisor, will select a concentration of 12 semester hours of interrelated upper-division courses on a theme or period within American Studies.

Acceptable courses in American Studies include, but are not limited to, the following representative courses currently in the catalog:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 333</td>
<td>Religion and Media</td>
</tr>
<tr>
<td>COM 334</td>
<td>Politics and Media</td>
</tr>
<tr>
<td>ENG 332</td>
<td>Literature of the South</td>
</tr>
<tr>
<td>ENG 334</td>
<td>Native American Literature</td>
</tr>
<tr>
<td>ENG 359</td>
<td>African-American Novels</td>
</tr>
<tr>
<td>HST 356</td>
<td>Early National Period (1787–1840)</td>
</tr>
</tbody>
</table>
AMS 210. CONCEPTS IN AMERICAN STUDIES 4 sh

This course is an introduction to American Studies and surveys the movement’s history and development. Students will be introduced to significant works and theoretical models and methodologies common to American Studies. Counts as partial fulfillment of the General Studies Civilization requirement. Offered spring.

Anthropology

Chair, Department of Sociology & Anthropology: Professor Basirico
Coordinator of Anthropology Program: Professor Bolin
Professors: Arcaro, T. Henricks
Associate Professors: Franzese, Lewellyn Jones, Mould, Palmquist
Assistant Professors: Curry, Peeks, Peloquin, Trachman

Anthropology is the study of humankind spanning millions of years and crossing the globe. Anthropologists seek to understand the human condition by answering questions about our past and our present as well as applying what we know to our future. An anthropological imagination—the ability to understand the social construction of cultural assumptions and embrace the overall human experience—is an integral part of personal growth and development and is designed to support students in choosing responsible and well-informed roles as citizens in an increasingly globalized world.

A disciplinary commitment to a holistic perspective in understanding humanity distinguishes anthropology as the most interdisciplinary of all the social sciences, addressing economic, political, religious, familial and social institutions as a single, complex system. This perspective is represented in a four-field approach: cultural, biological, archaeological and linguistic anthropology. Intersecting each of these four areas is applied anthropology, dedicated to problem-solving within and beyond the discipline using anthropological theories and methods in areas such as consumer research, environmental preservation, disaster recovery, HIV-AIDS, genetic counseling, heritage preservation, immigration and education.
A hallmark of anthropology is the comparative method, based on the idea that we can better understand human behavior when it is framed in reference to how people from around the world and in our own backyards have lived and changed over time. Through the comparative method, anthropologists understand the importance of the social and temporal context for explaining human behavior.

A major in Anthropology requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 112</td>
<td>Introduction to Cultural Anthropology</td>
<td>4 sh</td>
</tr>
<tr>
<td>Choose one course from the following:</td>
<td></td>
<td>4 sh</td>
</tr>
<tr>
<td>ANT 113</td>
<td>Human Evolution and Adaptation</td>
<td>4 sh</td>
</tr>
<tr>
<td>ANT 114</td>
<td>Introduction to Archaeology</td>
<td>4 sh</td>
</tr>
<tr>
<td>ANT 215</td>
<td>Qualitative Research Methods</td>
<td>4 sh</td>
</tr>
<tr>
<td>ANT 216</td>
<td>Quantitative Research Methods</td>
<td>4 sh</td>
</tr>
<tr>
<td>ANT 361</td>
<td>History of Anthropological Theory</td>
<td>4 sh</td>
</tr>
<tr>
<td>ANT 461</td>
<td>Senior Seminar in Anthropology</td>
<td>4 sh</td>
</tr>
<tr>
<td>Four hours must be earned through internship in anthropology</td>
<td></td>
<td>4 sh</td>
</tr>
<tr>
<td>Sixteen hours of electives selected from:</td>
<td></td>
<td>16 sh</td>
</tr>
<tr>
<td>Anthropology courses (ANT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 303</td>
<td>Linguistics</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**TOTAL**

44 sh

All graduating anthropology majors are required to complete a senior portfolio of their work. This portfolio will include a compilation of their work across their four years of anthropological study at Elon; therefore, students should be mindful of this requirement as they complete work for all their courses and be sure to retain electronic copies of work that they may want to include in their portfolio in their senior year.

A minor in Anthropology requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 112</td>
<td>Introduction to Cultural Anthropology</td>
<td>4 sh</td>
</tr>
<tr>
<td>ANT 215</td>
<td>Qualitative Research Methods</td>
<td>4 sh</td>
</tr>
<tr>
<td>Twelve semester hours selected from:</td>
<td></td>
<td>12 sh</td>
</tr>
<tr>
<td>Anthropology courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 303</td>
<td>Linguistics</td>
<td>4 sh</td>
</tr>
<tr>
<td>Four hours maximum may be selected from SOC courses (100-400 level)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

20 sh

**ANT 112. INTRODUCTION TO CULTURAL ANTHROPOLOGY**

This introduction to the study of human cultures focuses on the diversity of human cultures around the globe. It presents basic concepts, theories and methods used by anthropologists studying people and culture. Topics span human cultural evolution, social organization, marriage and family, making a living, economics, politics, religion and human problems related to issues of globalization, among others. Offered fall and spring. Required course for the Sociology major and the Anthropology major or minor.

**ANT 113. HUMAN EVOLUTION AND ADAPTATION**

This course provides a basic introduction to neo-Darwinian theory and natural selection, Mendelian and population genetics, mechanisms of human biological and cultural
adaptation, and interpretation of the primate and hominid fossil record (drawing on both paleontology and molecular genetics). Special attention is paid to the interaction of social mechanisms with biological and environmental influences in human evolution. Readings include an introduction to medical biotechnology and the Human Genome Diversity Project.

ANT 114. INTRODUCTION TO ARCHAEOLOGY 4 sh
Introduction to Archaeology presents the current state of archaeology by exploring its historical roots and covers basic archaeological theories, methods and practice. This includes techniques for investigation, recovery, reconstruction, interpretation and preservation, as well as ethical considerations.

ANT 121. CROSS-CULTURAL ENCOUNTERS 2 sh
This course is an introduction to the subject of culture and to living in a multicultural world. The central theme of the course is appreciating as well as understanding cultural diversity. Students will develop and expand their cultural sensitivity through a variety of experiential activities focused on becoming more aware of the role of culture as central in defining who we are as individuals. Exposure to the unique approaches of anthropologists in encountering and communicating with peoples of different cultures and backgrounds will be emphasized. This course will serve as an excellent foundation for a variety of majors in communications, the humanities, the social sciences, business and education and for those with a geographic focus such as Asia, Africa, Russia, etc. It will also serve as preparation for the study abroad experience.

ANT 215. QUALITATIVE RESEARCH METHODS 4 sh
This course examines the ways qualitative analyses (non-numerical data) help social scientists explore questions of meaning within specific social and cultural contexts, and historical moments. Specific topics include: participant observation, focus groups, open-ended interviewing, thematic coding, archival research and data analysis with a qualitative computer software program. The complementary relationship between qualitative and quantitative research methods will be considered, with a sustained focus on the particular strengths and weaknesses of qualitative research design. Prerequisite: SOC 111 or ANT 112. Cross-listed with SOC 215.

ANT 216. QUANTITATIVE RESEARCH METHODS 4 sh
This course examines the ways quantitative analyses (numerical data) help social scientists investigate issues, problems and relationships within social and cultural contexts. Specific topics include: discussion of the scientific method, survey methodology, sampling techniques, hypothesis testing, aggregate level analysis, and issues of reliability, validity and generalizability, as well as data analysis with SPSS. The complementary relationship between quantitative and qualitative research designs will be considered, with a focus on the strengths and weaknesses of quantitative research design. Prerequisite: SOC 111 or ANT 112. Offered spring semester. Cross-listed with SOC 216.

ANT 227. FROM THE GROUND DOWN 4 sh
Students explore the adventure and science of archaeology from the perspective of an anthropologist. This course highlights great discoveries in archaeology with a look at famous sites worldwide. An overview of the development of archaeology from treasure hunting to a high-tech science are presented. Additional topics include fieldwork techniques, artifact analysis, interpretation, forensic analysis and cultural resource preservation. The course may include a visit to an archaeological site in the area, weather permitting.

ANT 230. FOLKLORE 4 sh
Far from being relegated to the quaint shadows of the past, folklore thrives today in everyday life, from its humblest use in small social settings to its wide-reaching use in the politics of globalization. Folklore, the study of traditional expressive culture, is both a window into the values and beliefs of the people who share it, as well as an artistic product with value and merit in its own right. While we will examine individual folklore forms—including verbal art, ritual, festival and material culture—focus will be on the examination of folklore
performance within its situational and cultural contexts including family, school, religion, work and play.

ANT 253. **INDIGENOUS AUSTRALIA**  
Indigenous peoples of Australia have created the longest continuing cultural tradition in the world today. This course emphasizes the traditional, colonial and contemporary experiences of first Australian peoples through the socio-cultural imagination. Through lectures, field trips and directed self learning, students will explore important issues in indigenous Australian people’s quest for equality and cultural survival. Offered winter. Cross-listed with SOC 253.

ANT 310. **CULTURES OF THE SOUTH**  
This class will explore the southeastern United States as a coherent, but often highly contested, culture region. Using the methods of cultural anthropology and folklore, we will explore the cultures of the South, both for the overarching themes and patterns that emerge across traditions, as well as for the diversity of view and opinion found in the specific, unique traditions grounded in the region. The class will pay particular attention to themes of race, gender, myth, history, narrative, community memory and authenticity.

ANT 312. **NORTH AMERICAN INDIAN CULTURES**  
In this course, we will examine the cultures of selected American Indian tribes in the U.S. The class will take as a dual focus current issues in Indian country implicated by diverse worldviews, and expressive culture as a way to understand the performed beliefs and values of a community. Current issues will include multiple constructions of identity, fishing and hunting rights, sovereignty, casinos and cultural appropriation. Aspects of expressive culture will include material culture such as pottery and sand-painting, orally and visually performed genres such as storytelling and dance, and spiritual beliefs and practices, particularly as conveyed through ritual and festival. Focus will be on contemporary American Indian cultures in their relevant social, cross-cultural and historical contexts. Prerequisite: ANT112 or SOC111.

ANT 314. **NATIVE AMERICANS OF THE NORTH CAROLINA PIEDMONT**  
Utilizing contact resources and archaeological evidence this course examines the ethnohistory and ethnology of Piedmont Siouan Indians. Topics covered include social structure, subsistence patterns, mortuary practices, lithic traditions, processes of acculturation and the recent resurgence of ethnic identity among local Native Americans. The course concludes with field research at a local precontact archaeological site.

ANT 322. **ETHNOGRAPHY**  
This course teaches the methods anthropologists use to gain access, develop rapport, collect and analyze data, and interpret findings when studying human cultures. Students also read selected ethnographies (first-hand accounts by anthropologists who have lived among peoples of various cultures, including ourselves, throughout the globe). Prerequisite: SOC 111 or ANT 112.

ANT 323. **VIDEO ETHNOGRAPHY**  
For years, anthropologists have learned about other cultures through intensive fieldwork and then written about these cultures in books that line our library shelves. But in this technological age, many writers have become videographers, translating culture to the screen rather than the page. This class will introduce students to the process and art of ethnography and videography by reading published ethnographies, engaging with the current scholarship on visual anthropology, critically analyzing ethnographic films, and finally researching, shooting and editing short video ethnographies. Prerequisite: SOC 111 or ANT 112.

ANT 324. **CULTURE AND SEX**  
This course examines human sexuality from a biocultural perspective, exploring the physiology of human sexuality and the cross-cultural context of sexual expression. Themes include alternative sexual lifestyles, sexual dysfunction, the symbolic dimensions of sexuality and AIDS. Prerequisite: SOC 111 or ANT 112.
ANT 325. CULTURE, HEALTH AND ILLNESS 4 sh

This study of the biocultural basis of health and disease over time and across cultures examines the importance of culture in the experience of illness, diagnosis and treatments. Topics include the cultural implications of food and food habits, health care practices, the relationship of healers and patients, alternative health care practices and the relationship of mind and body in illness and recovery. Prerequisite: SOC 111 or ANT 112.

ANT 329. WOMEN, CULTURE AND THE WORLD 4 sh

This course focuses on women's issues from an anthropological perspective, emphasizing evolutionary and cross-cultural considerations, and including the impact of globalization on women's lives. Gender relations and women's status/roles are discussed in the context of the following systems: economic, political, kinship and family, religion and healing. Topics include women's life-cycles, the cultural construction of gender, personhood and violence against women. Prerequisite: SOC 111 or ANT 112.

ANT 361. HISTORY OF ANTHROPOLOGICAL THEORY 4 sh

This course introduces students to some of the major social theories and debates that inspire and inform anthropological analysis. Students will investigate a range of theoretical propositions concerning such topics as agency, structure, subjectivity, history, social change, power, culture and the politics of representation. Prerequisite: ANT 112.

ANT 364. INEQUALITY AND DEVELOPMENT IN LATIN AMERICA 4 sh

This course examines the persisting extreme disparity between rich and poor in Latin America with special attention to the promise and problems of post-World War II development. We draw on historical material and case studies to examine the roles of modernization and dependency theories; the World Bank and IMF; the women's movement; grassroots struggles; non-governmental organizations (NGOs) and neoliberal policies in shaping and reshaping development. The current push for “free trade” policies is evaluated in light of criteria from emerging models for more sustainable, participatory development.

ANT 380-89. SPECIAL TOPICS IN ANTHROPOLOGY 2-4 sh

This series of courses reflects new contributions in anthropology or anthropological issues. Prerequisite: To be determined by instructor.

ANT 461. SENIOR SEMINAR IN ANTHROPOLOGY 4 sh

This capstone course reviews major areas of anthropology and provides further opportunity to share research on these topics. Students conduct research ranging from how anthropological knowledge can be applied occupationally and politically to more basic, academic topics. Students compile a senior intellectual portfolio that includes examples of their academic achievements across their years of anthropological study; therefore, students should be mindful of this requirement and retain electronic copies of work that they may want to include in this portfolio. Prerequisites: ANT 215, ANT 216, ANT 361 and senior ANT major status.

ANT 471. SEMINAR: SPECIAL TOPICS 2-4 sh

ANT 482. INTERNSHIP IN ANTHROPOLOGY 1-4 sh

Teaching, research, service and occupational internships are offered. Limited to four semester hours credit applicable to anthropology major or minor. Prerequisites: Department permission and at least sophomore standing.

ANT 491. INDEPENDENT STUDY 1-4 sh

ANT 499. INDEPENDENT RESEARCH IN ANTHROPOLOGY 1-8 sh

The student develops an individual project of original research under the guidance of a professor within the department. Prerequisites: At least sophomore standing; anthropology major or minor; satisfactory completion of ANT 215 or ANT 216 and permission of the sponsoring professor. Students are also required to complete the department's Independent Research form, a process that includes a description of the proposed research and a student-professor plan for completing the course.
Art

Chair: Associate Professor Fels
Professor: Sanford
Associate Professors: DiRosa, Hassell, Simpkins, Tucker, Wood
Assistant Professor: Kim
Adjuncts: Alkan, Gignoux, J. Henricks, Obando

The Department of Art and Art History offers a Bachelor of Fine Arts (B.F.A.) degree in Studio Art and a Bachelor of Arts (A.B.) degree in Art. The B.F.A. in Art supports students who are committed to a pre-professional program in studio arts. The A.B. in Art supports students interested in combining the study of art with another major, minor or program area.

The B.F.A. in Studio Art builds on the foundation of liberal studies and offers students significant time for focused research and rigorous studio practice. This studio-intensive program is designed for student artists who have an exceptionally strong commitment to their work; seek to become independent artists, creative problem-solvers, and critical thinkers; are passionate about creating artwork that purposefully combines complex ideas with an advanced understanding of media and the context for art making; develop an appreciation for the relationship between the liberal arts and the study of art/art history; and are considering further study at the graduate level and/or a career as a professional artist. As an inherently interdisciplinary endeavor, art making is enhanced by exposure to the liberal arts and sciences. Students will use this rich and diverse resource for developing relevant contemporary art. The B.F.A. in art requires 64 semester hours. Admission to the program requires a portfolio review.

The A.B. affords students the opportunity to pursue art making in a rich interdisciplinary environment. The degree offers a balance of courses in art fundamentals and electives with in-depth involvement in studio practice. All studio courses emphasize hands-on experience where confidence, skills and ideas are developed. Small classes and well-equipped work spaces provide students with the environment and tools conducive to the creative process. Students work closely with a faculty of active artists with first-hand knowledge of the medium. As part of their training as artists, students are strongly encouraged to select the best General Studies and other courses that will complement their research and art making. The A.B. in art requires 48 semester hours.

A major in Art (B.F.A. degree) requires the following courses:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART</td>
<td>112 Fundamentals of Design</td>
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<tr>
<td>ART</td>
<td>113 Three-Dimensional Design</td>
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<tr>
<td>ART</td>
<td>114 Time Arts</td>
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<tr>
<td>ART</td>
<td>201 Drawing I</td>
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<tr>
<td>ART</td>
<td>306 Life Drawing</td>
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<tr>
<td>ARH</td>
<td>212 Art History III: Revolt, Reform, Critique</td>
<td>4 sh</td>
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<tr>
<td>ARH</td>
<td>320 Issues in Contemporary Art</td>
<td>4 sh</td>
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<tr>
<td>ART</td>
<td>380 Professional Practices in Art</td>
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<tr>
<td>ART</td>
<td>495 Thesis Seminar</td>
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<tr>
<td>ARH</td>
<td>210 Art History I: Gods and Emperors</td>
<td>4 sh</td>
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<tr>
<td>ARH</td>
<td>211 Art History II: Cathedrals to Conquest</td>
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At least one course selected from the following:  
**ART 200 Ceramics I**
**ART 202 Painting I**
**ART 206 Introduction to Making Photographs**
**ART 207 Introduction to Digital Photography**
**ART 260 Introduction to Digital Art**

Twenty-eight semester hours of ART courses with at least 16 semester hours in ART courses at the 300-400 level.  

| TOTAL | 64 sh |

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**A major in Art (A.B. degree) requires the following courses:**

| ART 201 Drawing I | 4 sh |
| ARH 210 Art History I: Gods and Emperors | 4 sh |
| ARH 211 Art History II: Cathedrals to Conquest | 4 sh |
| ARH 212 Art History III: Revolt, Reform, Critique | 4 sh |

Two courses selected from the following:  
**ART 112 Fundamentals of Design**
**ART 113 Three Dimensional Design**
**ART 114 Time Arts**

One course selected from the following:  
**ART 200 Ceramics I**
**ART 202 Painting I**
**ART 206 Introduction to Making Photographs**
**ART 207 Introduction to Digital Photography**
**ART 260 Introduction to Digital Art**

| TOTAL | 48 sh |

Twelve semester hours of Art Studio courses  
Four hours must be at the 300-400 level and four hours must be at the 400 level. ART 481 does not count toward this requirement.

| ART 380 Professional Practices in Art | 2 sh |
| ART 461 Senior Seminar | 2 sh |

Choose at least one course from the following as the capstone ART course  
**ART 400 Advanced Projects in Ceramics**
**ART 402 Advanced Projects in Painting**
**ART 460 Advanced Projects in Static Imaging**
**ART 462 Advanced Projects in Kinetic Imaging**
**ART 485 Advanced Projects Photography**
**ART 491 Independent Study in Art**
**ART 499 Independent Research**

| TOTAL | 48 sh |
A minor in Art requires the following courses:

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<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>ART 201</td>
<td>Drawing I</td>
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One course selected from the following:

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<td>Fundamentals of Design</td>
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<td>Three Dimensional Design</td>
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<td>ART 114</td>
<td>Time Arts</td>
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Two courses selected from the following:

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<tr>
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Two ART courses with one at the 300 level

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**TOTAL**

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Multimedia Authoring minor: See Multimedia Authoring.

**ART 112. FUNDAMENTALS OF DESIGN**

This introduction to the fundamental principles and processes of two-dimensional design uses a variety of traditional and non-traditional media with an emphasis on problem-solving, craftsmanship, creative exploration and effective use of the language of art. This course fulfills the Expression requirement for General Studies. Materials Fee: $75. Offered fall and spring.

**ART 113. THREE-DIMENSIONAL DESIGN**

This introduction to the fundamental principles and processes of three-dimensional design uses a variety of traditional and non-traditional media with an emphasis on problem-solving, craftsmanship, creative exploration and effective use of the language of art. This course fulfills the Expression requirement for General Studies. Materials Fee: $150. Offered fall.

**ART 114. TIME ARTS**

This foundations of art course investigates the potential for art in unexpected spaces and explores artistic processes that unfold over time. In this course, students will gain knowledge in areas like image construction, sound recording and editing, book making and image sequencing. Students may explore a range of artistic media including photography, video, sound, animation and installation art. This course fulfills the Expression requirement for General Studies. Materials Fee: $150. Offered fall.

**ART 200. CERAMICS I**

This introduction to principles and processes of working with clay and glazes emphasizes basic construction techniques and kiln firing. Materials fee: $75. Offered fall and spring.

**ART 201. DRAWING I**

Students learn the fundamentals of drawing and composition using various media. Materials fee: $75. Offered fall and spring.

**ART 202. PAINTING I**

Painting I introduces the techniques of painting and composition in oils with additional emphasis on color theory and creative exploration of the medium. Materials fee: $125. Offered fall and spring.

**ART 203. WATERCOLOR**

Course work studies various techniques of painting and composition with watercolor, emphasizing color theory and creative exploration of the medium. Materials fee: $40.
ART 206.  INTRODUCTION TO MAKING PHOTOGRAPHS  
This course is an introduction to the techniques, processes and visual culture of film-based photography (analog) using black and white materials. Emphasis is placed on the expressive qualities of the medium by examining and making pictures that communicate ideas and experiences. Wet lab experience included. Lab fee: $150. Offered fall and spring.

ART 207.  INTRODUCTION TO DIGITAL PHOTOGRAPHY  
This course is an introduction to the conceptual and practical principles of photography in the digital era. Input and output of digital imaging workflow will be explored. Emphasis is placed on understanding image making as a means to express individual views and ideas. Lab fee: $150. Offered fall and spring.

ART 260.  INTRODUCTION TO DIGITAL ART  
This course covers the basic elements of visual language and design and introduces students to the possibilities of this emerging medium through the work of contemporary artists. Students will conceive of and create digital works of art, develop critical thinking skills and conduct research on topics related to technology in the arts. Materials fee: $150. Offered fall and spring.

ART 300.  CERAMICS II  
Students continue from ART 200 with emphasis on wheel-thrown forms, glaze mixing, kiln firing and studio management. Prerequisite: ART 200. Materials fee: $75.

ART 301.  DRAWING II  
A continuation of ART 201, this course emphasizes composition, critical analysis and productive exploration through more extended studies in a variety of media. Prerequisite: ART 201. Materials fee: $75.

ART 302.  PAINTING II  
A continuation of ART 202, this class emphasizes individual development, advanced critical analysis of visual images and productive exploration of the medium. Prerequisite: ART 202. Materials fee: $125.

ART 305.  PHOTOGRAPHY II  
This course builds on the ideas and information in ART 206 and 207. More advanced techniques and a deeper understanding of the qualities and history of photography provide greater control over how photographs look and what they state. Prerequisite: ART 205 or ART 206 or ART 207. Lab fee: $150.

ART 339.  ECOLOGICAL ART  
Ecological art is a contemporary art movement that addresses the environmental crisis in a number of creative ways, often involving collaboration and “eco-friendly” practices and methodologies. Largely activist oriented, it can take on a number of forms, ranging from reclamation and restoration art to rituals, performances and “ecoventions.” To reflect the movement itself, this course is designed to be cross-disciplinary, combining art with environmental ethics and ecology. Creative projects will focus on weaving social responsibility into the making of art and they will embrace the nature art/science collaborations. The course fulfills a requirement for the ENS degree. Prerequisite: Permission by instructor.

ART 360.  STATIC IMAGING  
Static Imaging expands the ideas and skills introduced in ART 260. Emphasis is on the creation, manipulation and display of still images for print and screen-based environments. Students continue their critical inquiry into the medium through required readings and research. Prerequisite: ART 260 or ART 263. Materials fee: $150.

ART 361.  WEB ART  
Web art expands the ideas and skills introduced in ART 260. Emphasis is on the study and creation of art within the culture of the Internet using the conceptual systems of interactivity, scripting and hypermedia in current and developing forms. Prerequisite: ART 260 or ART 263. Materials fee: $150.
ART 362. KINETIC IMAGING  
Kinetic imaging expands the ideas and skills introduced in ART 260. Emphasis is on the creation, manipulation and display of the moving image in video, animation and sound-based art. Students continue their critical inquiry into the medium through required readings and research. Prerequisite: ART 260 or ART 263. Materials fee: $150.

ART 380. PROFESSIONAL PRACTICES IN ART  
This course provides practical information for advanced students considering a career in art. Topics covered include documenting artwork; writing resumes, artist statements and cover letters; developing skills in presentation, promotion and exhibition preparation; applying to graduate school and preparing for other postgraduate opportunities. Junior standing art majors or instructor permission required. Offered fall.

ART 400. ADVANCED PROJECTS IN CERAMICS  
A continuation of ART 300, emphasis in this course is on increased individual exploration of a single form-making process, glaze calculation and kiln firing. Prerequisite: ART 300. Materials fee: $75. May be repeated a maximum of three times for credit.

ART 402. ADVANCED PROJECTS IN DRAWING AND PAINTING  
This continuation of ART 302 emphasizes increased individual exploration of the medium and the development of a focused body of work. Prerequisite: ART 302. Materials fee: $125. Offered fall. May be repeated a maximum of three times for credit.

ART 405. PHOTOGRAPHY III  
This course continues ART 305 with a semester-long project proposed and developed by each student concluding in a portfolio. Course emphasis is on individual participation through class presentations on techniques and issues in contemporary photography. Prerequisite: ART 305. Lab fee: $150.

ART 460. ADVANCED PROJECTS IN STATIC IMAGING  
This course emphasizes the self-directed exploration of digital media resulting in the creation of an extensive project or body of work utilizing still imagery. Students will craft proposals and artist statements, conduct research and prepare this work for distribution or display. Prerequisite: ART 360. Materials fee: $150.

ART 461. SENIOR SEMINAR  
This capstone experience provides the environment where Bachelor of Arts students get feedback from an instructor and their peers on their capstone work. This discussion and feedback-based course provides each student with a diverse community of bachelor of arts students working with a variety of different capstone projects. Since students must prepare their capstone work outside of the Senior Seminar, students must take a 300 to 400 level ART course during both semesters of the seminar. The department chair, in conjunction with the advisor, can approve another 300 to 400 level course that is deemed appropriate for the project. Students complete one semester hour in the fall and one semester hour in the spring. Offered fall and spring.

ART 462. ADVANCED PROJECTS IN KINETIC IMAGING  
This course emphasizes the self-directed exploration of digital media resulting in the creation of an extensive project or body of work in video, animation, web or sound. Students will craft proposals and artist statements, conduct research and prepare this work for distribution or display. Prerequisite: ART 360. Materials fee: $150.

ART 481. INTERNSHIP IN ART  
Internships are designed to provide students with invaluable work experience and insight into art and art history-related professions. In addition to hands-on work, internships involve reflection assignments and supervisor evaluations as part of the learning process.

ART 485. ADVANCED PROJECTS IN PHOTOGRAPHY  
This course is a self-directed involvement in a long-range photographic project proposed, researched and executed in consultation with the instructor/mentor. The project should
reflect the student’s knowledge and experience in the medium and culminate in a coherent portfolio for exhibition or publication. Materials fee: $150.

**ART 491.  INDEPENDENT STUDY  1-8 sh**

Art majors and minors may pursue a program of advanced study and individual exploration in studio art. Proposals for independent study should be prepared and submitted in the semester prior to enrollment. The instructor may require class attendance. Maximum eight semester hours of credit. Permission of art faculty.

**ART 495/496.  THESIS SEMINAR  1 sh ea**

This capstone experience provides the critical environment where B.F.A. students create the thesis body of work. This critique-based course provides each student with the essential high-level critique feedback students need to create a compelling body of work. In addition, the seminar helps students further develop the high level professional practices and communication skills evident in the thesis exhibition and the thesis presentation. Students complete one semester hour in the fall and one semester hour in the spring. Prerequisites: ARH 320 and ART 380. Offered fall and spring.

**ART 499.  RESEARCH IN ART  1-8 sh**

Students engage in an undergraduate research project under the guidance of a department mentor. A special research proposal form must be prepared and submitted in consultation with the mentor. Maximum of eight semester hours of credit.

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**Art History**

**Coordinator:** Associate Professor Ringelberg  
**Assistant Professor:** Gatti  
**Adjuncts:** Liebhart, Mayhew, Moore

The major and minor in Art History provide a broad and in-depth study of images and objects from prehistory to the present in a global context. Courses are designed to prepare students for graduate programs in art history, visual culture, cultural studies, museum studies and critical theory. An art historian’s primary resources include visual objects themselves, so specialized training in formal analysis is vital to our studies. Upper-level courses cover specialized areas of analysis, including those defined by geographical region, time period, stylistic category, conceptual theme and ideologies. Art History courses are beneficial to anyone wishing to develop advanced critical viewing, thinking and writing skills in a discipline that melds the arts with the humanities in a historical context.

**A major in Art History requires the following courses:**

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<td>Art History III: Revolt, Reform, Critique</td>
<td>4 sh</td>
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<tr>
<td>ARH 301</td>
<td>Art History Methodologies</td>
<td>4 sh</td>
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<tr>
<td>ARH 495</td>
<td>Senior Seminar in Art History</td>
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Eight hours of Art History (ARH) electives at the 300-400 level  

Twelve hours of electives selected from any of the following:  

- Art History courses (ARH) at the 300-400 level  
- One course in ART from the following:  
  - ART 112  Fundamentals of Design  
  - ART 113  Three-Dimensional Design  
  - ART 114  Time Arts
• One course in a foreign language at 200 level or higher
• One course in History (HST) at the 300-400 level

TOTAL 40 sh

A minor in Art History requires the following courses:

ARH 210  Art History I: Gods and Emperors  4 sh
ARH 211  Art History II: Cathedrals to Conquest  4 sh
ARH 212  Art History III: Revolt, Reform, Critique  4 sh
ARH 301  Art History Methodologies  4 sh

Eight semester hours of Art History electives, which must be at the 300-400 level 8 sh

TOTAL 24 sh

ARH 210.  ART HISTORY I: GODS AND EMPERORS  
This course introduces the student to the history of world art and architecture from the Neolithic Period through the Late Roman Period. This will include the study of materials and production, as well as an introduction to the often specialized vocabulary related to ancient art. In addition, issues such as gender, identity, power and the reception of the art (both ancient and modern), provenance, conservation and museum ethics, among other topics, will be addressed. Students will learn to think and speak critically about visual and textual material from the Assyrian palace to the Roman temple. No prerequisite.

ARH 211.  ART HISTORY II: CATHEDRALS TO CONQUEST  
This course introduces the student to the history of world art and architecture from the 4th century through the 16th century. As we move from the ancient world to the development of monotheistic empires, we investigate contacts and conflicts between the arts of Church and State, the cultures of the Mosque and the Temple, and the politics of mapping the “New World.” The ideals of Renaissance within a global context, including a discussion of the arts of mission, acts of omission and art as diplomacy will be considered. This course ends with a discussion of conquests and colonialism, including the Ottoman conquest of Constantinople and Columbus’ voyage to the Americas. Students will learn to think and speak critically about visual and textual material from the Byzantine Church to the Ottoman mosque. No prerequisite.

ARH 212.  ART HISTORY III: REVOLT, REFORM, CRITIQUE  
This course introduces the student to the history of world art and architecture from the 17th century to the present. We will explore the contexts in which these works were created, considering a variety of factors that influenced their production, style, meaning, authorship, patronage and continued importance. We will pay particular attention to historical moments of revolution and reform as well as the increasing emphasis placed on art’s critical function in society both culturally and politically. You will learn to think and speak analytically about visual and textual material from Italian Baroque architecture to contemporary Japanese performance art. No prerequisite.

ARH 301.  ART HISTORY METHODOLOGIES  
This course introduces students to the various methodologies used to analyze a work of art as well as the role that the study of art has played in defining contemporary visual culture. The course material will be presented through assigned readings and class discussion, highlighting the work of contemporary and historically significant art historians, philosophers, art critics and artists. Prerequisite: One 200 level ARH course.

ARH 320.  ISSUES IN CONTEMPORARY ART  
This course considers the arts since 1945, covering the period both broadly and in selective detail to better understand how and why art in our time takes the forms it does. We will
consider new approaches to creating and exhibiting art, relevant social and political issues to which artists respond, and the impact of critical theory upon visual art, art history and criticism. No prerequisite. Offered fall and spring.

ARH 321. ISSUES IN AMERICAN ART  
Course content will vary depending on the expertise of the instructor, and might include any culture of the Americas, from the Inuit to the Maya, the Aztec to the Rapa Nui, or the Bay Area painters to the New York School. Faculty experts could focus on African American artists or on the African Diaspora, or both; they could also choose to have students address the artistic, patronage, and political relationships between Europe and the United States during the Colonial Era, Reconstruction, or during or after the World Wars. Considerations of peculiarly American modes of representation, display, or collection might also be the focus, as might critiques of the very notion of an American categorization of these activities. No prerequisite.

ARH 340. HISTORY OF PHOTOGRAPHY  
This course addresses the history of the photographic arts from the development of the camera obscura to the present use of digital technologies. Issues discussed may include the role of technology in the arts; scopophilia and voyeurism; the use of photography in science, government, propaganda and advertising; perceptions of objective reality and manipulation in the photographic image; reproducibility, time and movement; and personal/amateur photography. No prerequisite.

ARH 341. AFRICAN ART  
This course introduces the artistic production of Africa. A variety of media — sculpture, painting, architecture, performance and personal decoration — will be examined and we will consider both traditional and contemporary definitions of African art and cultures. Special attention will be paid to art as it exists within or defines social contexts - initiation, religious ceremony, political and royal institutions, domestic arenas, cross-cultural exchanges and colonialism. No prerequisite.

ARH 342. ISLAMIC ART: ORNAMENT OR IDOLATRY?  
This course examines the artistic traditions of Islam from the 7th to the 21st century. We will consider work that relates specifically to the practice of Islam, such as the mosque or the calligraphy of the Koran, as well as secular art produced under Islamic rule, such as the palace or imperial clothing. Visual material will be organized according to medium such as: architecture, the arts of the book, and the art of the object, as well as form; such as calligraphy, abstract design and when applicable, examples of figural imagery. No prerequisite.

ARH 481. INTERNSHIP IN ART HISTORY  
Internships are designed to provide students with work experience and insight into art history-related professions.

ARH 491. INDEPENDENT STUDY IN ART HISTORY  
Open to juniors and seniors with permission of instructor.

ARH 495. SENIOR SEMINAR IN ART HISTORY  
A capstone experience for majors, this course offers students experience in researching, writing and presenting a senior thesis project. Prerequisite: ARH 301.

ARH 499. INDEPENDENT RESEARCH IN ART HISTORY  
Open to juniors and seniors with permission of instructor. In conjunction with a faculty mentor, the student will formulate and execute an original research project. A research proposal form completed by the student and faculty mentor is required for registration.
**Arts Administration**

**Coordinator: Elon College Dean’s Office**

For every artistic event, much of the work to make it successful is hidden. Arts administrators work behind the scenes to make sure artists keep creating and the public keeps appreciating art of every kind. Arts administrators provide the leadership to guide arts programs that range from finger-painting to digital media; from ballet to belly dance; from musical theaters in the bright lights of Broadway to traveling companies taking theater productions across the country; and from hip-hop to opera. The Arts Administration major is built on a multidisciplinary approach, combining a strong core rooted in arts administration approaches to management, legal issues, and marketing, with a management/business component, and a concentration in the student’s chosen art form (i.e. art, art history, music, or performing arts). Students graduating with this major are well-prepared through the coursework and their internship experiences to enter the professional artistic field and employ their expertise to bring artistic events to the public. Similarly, they may also choose to enter a graduate program in Arts Administration to hone their skills and seek more specialized positions with the arts administration profession.

**A Bachelor of Arts degree with a major in Arts Administration requires the following courses:**

**Arts Administration**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>SH</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAD 101</td>
<td>Introduction to Arts Organizations</td>
<td>4</td>
</tr>
<tr>
<td>AAD 220</td>
<td>Approaches to Arts Administration</td>
<td>4</td>
</tr>
<tr>
<td>AAD 320</td>
<td>Legal Aspects of Arts and Entertainment</td>
<td>4</td>
</tr>
<tr>
<td>AAD 481</td>
<td>Arts Administration Internship</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(2 sh internally on campus and 2 sh externally for another organization)</td>
<td></td>
</tr>
<tr>
<td>AAD 495</td>
<td>Senior Seminar</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total**

**Management**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>SH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Principles of Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS 303</td>
<td>Introduction to Managing</td>
<td>4</td>
</tr>
<tr>
<td>BUS 304</td>
<td>Introduction to Marketing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Choose one course from the following:</td>
<td></td>
</tr>
<tr>
<td>ENG 215</td>
<td>Introduction to Professional Writing and Rhetoric</td>
<td>4 sh</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIN 303</td>
<td>Introduction to Finance</td>
<td></td>
</tr>
<tr>
<td>ECO 111</td>
<td>Principles of Economics</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total**

**Disciplinary concentration**

Students are required to complete a concentration in an arts discipline. Completing the requirements of any majors or minors offered in the departments of Art & Art History, Music, or Performing Arts would fulfill the concentration requirement. (semester hours range from 20-26 for the minors included)

**Total**

56-66 sh
AAD 101. INTRODUCTION TO ARTS ADMINISTRATION 4 sh
This course provides an overview to the profession of Arts Administration through an exploration of the various kinds of arts organizations, their structures, and the professionals who work in them. Students will also be introduced to contemporary issues facing arts organizations at the time the course is taught. Offered fall and spring.

AAD 220. APPROACHES TO ART ADMINISTRATION 4 sh
This course explores the various functional systems (publicity, marketing, advocacy, etc.) essential to contemporary arts administration. Students will study how different organizations accomplish these systems and learn the underlying theory and importance of each. Offered one each year fall or spring.

AAD 320. LEGAL ASPECTS OF ARTS AND ENTERTAINMENT 4 sh
This course is an introduction to entertainment law, specifically to the role of contracts, copyright and the Constitution in the arts and entertainment. The practical aspects of arts and entertainment law are emphasized such that students learn the vocabulary utilized by entertainment lawyers and the principles of the major working areas of entertainment law. Offered fall or spring.

AAD 481. ARTS ADMINISTRATION INTERNSHIP 1-4 sh
Students earn credit for working in practical Arts Administration settings, either in commercial or not-for-profit settings. The course will require planning and identification of expectations and goals, thorough recording of the experience, and reflection following the completion of the internship. Offered fall, winter, spring, summer.

AAD 491. SENIOR SEMINAR 4 sh
This course serves as the capstone experience for the Arts Administration major, exploring a variety of topics and skills to help the student prepare for entry to the profession or graduate study. Specific focus will be placed on developing necessary materials for the emerging Arts Administration professional (resume, website, portfolio, etc.) Additionally each student will complete a major project demonstrating their readiness to enter the field. Prerequisites: AAD 101, AAD 220, and AAD 320.

Asian Studies
Coordinator: Assistant Professor Winfield
The Asian Studies minor offers students an interdisciplinary program to study the history, geography, religion, languages, philosophy, economics and societies of this vast, diverse continent. Students can choose from a wide range of courses dealing with the culture and history of India, China and Japan, Buddhism, Hinduism, environmental issues in Southeast Asia, contemporary politics, Asian film and literature, and Chinese geography. They can study Japanese or Chinese, either at Elon or in our study abroad programs in China and Japan. The university also offers a unique series of Winter Term and semester abroad opportunities in India, China, Japan and other Asian countries.

Courses must be chosen from at least two disciplines. Students are strongly encouraged to consider appropriate foreign language study (Japanese or Chinese) and studying abroad in the region. Up to eight semester hours of language study can be counted toward the minor. With the approval of the program coordinator, up to 12 semester hours of study-abroad credit can be counted toward the minor. Students interested in pursuing further study of the region should consider an international studies major with an Asian regional concentration.

A minor in Asian Studies requires 20 semester hours selected from the following:

General Asian Studies courses
ARH 212 AS Arts and History III: Revolt, Reform, Critique
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARH 320 AS</td>
<td>Issues in Contemporary Art</td>
</tr>
<tr>
<td>ENG 255 AS</td>
<td>Asian Film and its Literary Foundations</td>
</tr>
<tr>
<td>ENG 255 AS</td>
<td>East Asian Literature</td>
</tr>
<tr>
<td>ENS 310 AS</td>
<td>Environmental Issues of Southeast Asia</td>
</tr>
<tr>
<td>GST 260 AS</td>
<td>Culture of Japan (2 sh)</td>
</tr>
<tr>
<td>GST 261 AS</td>
<td>Culture of China (2 sh)</td>
</tr>
<tr>
<td>GST 333 AS</td>
<td>Religion and Art of Asia</td>
</tr>
<tr>
<td>GST 370 AS</td>
<td>Interdisciplinary Zen</td>
</tr>
<tr>
<td>HST 320 AS</td>
<td>China, Japan and the Pacific Century: Era of War and Revolution</td>
</tr>
<tr>
<td>HST 321 AS</td>
<td>China: Empire and Revolution, 1800-1948</td>
</tr>
<tr>
<td>PHL 352 AS</td>
<td>Eastern Philosophy: Zen in Theory and Practice</td>
</tr>
<tr>
<td>POL 363 AS</td>
<td>Politics of Asia</td>
</tr>
<tr>
<td>POL 388 AS</td>
<td>India, Pakistan and South Asia: Politics and International Relations</td>
</tr>
<tr>
<td>REL 201 AS</td>
<td>Buddhist Traditions</td>
</tr>
<tr>
<td>REL 202 AS</td>
<td>Hindu Traditions</td>
</tr>
<tr>
<td>REL 356 AS</td>
<td>Chinese “Religions” from Confucius to Mao</td>
</tr>
<tr>
<td>REL 357 AS</td>
<td>Sages and Samurai: Religion in the Japanese Experience</td>
</tr>
<tr>
<td>REL 358 AS</td>
<td>Sites and Rites: Sacred Space and Ritual in World Religions</td>
</tr>
<tr>
<td>REL 360 AS</td>
<td>Hindu Goddesses: From Myths to Movies</td>
</tr>
<tr>
<td>REL 361 AS</td>
<td>Women, Religions and Ethnography</td>
</tr>
<tr>
<td>REL 362 AS</td>
<td>Hindu Textual Traditions: Sacrifice, Duty and Devotion</td>
</tr>
<tr>
<td>REL 363 AS</td>
<td>Women in Islam: Veneration, Veils and Voices</td>
</tr>
<tr>
<td>APS 361-69</td>
<td>Seminars in Asian Studies (2-4 sh)</td>
</tr>
<tr>
<td>APS 481</td>
<td>Internship in Asian Studies (1-4 sh)</td>
</tr>
</tbody>
</table>

**Asian Foreign Language Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHN 121</td>
<td>Elementary Chinese I</td>
</tr>
<tr>
<td>CHN 122</td>
<td>Elementary Chinese II</td>
</tr>
<tr>
<td>CHN 221</td>
<td>Intermediate Chinese I</td>
</tr>
<tr>
<td>JPN 121</td>
<td>Elementary Japanese I</td>
</tr>
<tr>
<td>JPN 122</td>
<td>Elementary Japanese II</td>
</tr>
<tr>
<td>JPN 221</td>
<td>Intermediate Japanese I</td>
</tr>
<tr>
<td>JPN 222</td>
<td>Intermediate Japanese II</td>
</tr>
</tbody>
</table>

**Study Abroad Winter Term Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC/BUS/FIN 277</td>
<td>Business in the Pacific Rim: Hong Kong, China, Singapore, Vietnam</td>
</tr>
<tr>
<td>GST 210</td>
<td>Media and Culture in Japan</td>
</tr>
<tr>
<td>GST 236</td>
<td>Science Education and Development (India)</td>
</tr>
<tr>
<td>GST 275</td>
<td>The Flying Dragon (China)</td>
</tr>
</tbody>
</table>

**TOTAL** 20 sh

There are several other study abroad opportunities that are applicable to the Asian Studies minor (e.g. India, Vietnam and South Korea). Please contact the Asian Studies coordinator for more information.
Biochemistry

Coordinator, Department of Chemistry: Associate Professor Wright
Professor: Sienerth
Associate Professors: Matera, Miyamoto, L. Niedziela
Assistant Professors: Izzo, Ponton, Moore, Train

Biochemistry focuses on those processes that occur at the molecular level in living organisms. The goal of the biochemistry major is to provide an in-depth, interdisciplinary foundation in chemistry and biology needed to understand these processes. Students completing this major will be prepared for careers in the biotechnology industry or graduate studies in biochemistry, pharmaceutical chemistry, molecular biology or medically-related fields.

Administered by the Department of Chemistry, a Bachelor of Science degree in Biochemistry (61-65 semester hours) is offered in a three-tiered structure. Foundational courses are taken from biology, chemistry, mathematics and physics. Intermediate courses in biochemistry, genetics and organic chemistry provide in-depth knowledge. Advanced electives in biochemistry, biology and chemistry allow students flexibility in tailoring a curriculum to fit their post baccalaureate goals. The major concludes with a capstone experience focusing on an advanced topics in biochemistry coupled with the creation of a scientific research proposal.

Students who major in biochemistry will gain access to state-of-the-art technology and be able to put their knowledge into practice through internships and/or undergraduate research. Biochemical research may be offered by appropriate faculty in either the Department of Biology or the Department of Chemistry. Undergraduate researchers are encouraged to present their results at local, regional and national scientific meetings.

A Bachelor of Science degree in Biochemistry requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111</td>
<td>Introductory Cell Biology</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO 112</td>
<td>Population Biology</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO 113</td>
<td>Cell Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>BIO 114</td>
<td>Population Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>CHM 111</td>
<td>General Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 112</td>
<td>General Chemistry II</td>
<td>4 sh</td>
</tr>
<tr>
<td>Select one sequence from the following:</td>
<td></td>
<td>8 sh</td>
</tr>
<tr>
<td>PHY 201</td>
<td>General Physics I and PHY 202 General Physics II or</td>
<td></td>
</tr>
<tr>
<td>PHY 221</td>
<td>University Physics I and PHY 222 University Physics II</td>
<td></td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>BIO 245</td>
<td>Principles of Genetics</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 211</td>
<td>Organic Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 212</td>
<td>Organic Chemistry II</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 311</td>
<td>Quantitative Analysis</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 351</td>
<td>Biochemistry</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 353</td>
<td>Advanced Biochemistry</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 495</td>
<td>Senior Seminar in Biochemistry</td>
<td>3 sh</td>
</tr>
</tbody>
</table>
Students must take a minimum of 10 hours with at least 4 hours from CHM and 4 hours from BIO:\(^1\):

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO</td>
<td>321</td>
<td>Microbiology</td>
</tr>
<tr>
<td>BIO</td>
<td>422</td>
<td>Molecular and Cellular Biology</td>
</tr>
<tr>
<td>BIO</td>
<td>445</td>
<td>Advanced Genetics</td>
</tr>
<tr>
<td>BIO</td>
<td>499(^2,3)</td>
<td>Research</td>
</tr>
<tr>
<td>CHM</td>
<td>321</td>
<td>Instrumental Analysis</td>
</tr>
<tr>
<td>CHM</td>
<td>332</td>
<td>Physical Chemistry I</td>
</tr>
<tr>
<td>CHM</td>
<td>334(^4)</td>
<td>Physical Chemistry II</td>
</tr>
<tr>
<td>CHM</td>
<td>472(^3)</td>
<td>Special Topics: NMR</td>
</tr>
<tr>
<td>CHM</td>
<td>473(^3)</td>
<td>Special Topics: Medicinal Chemistry</td>
</tr>
<tr>
<td>CHM</td>
<td>499(^2,3)</td>
<td>Research</td>
</tr>
</tbody>
</table>

**TOTAL** \(61-65\) sh

\(^1\) Other elective can be substituted with approval of the department.

\(^2\) BIO/CHM 499 must be approved by the coordinator as having biochemical content.

\(^3\) Special topics courses (2 sh each) and BIO/CHM 499 can count up to 4 sh toward the major.

\(^4\) MTH 221 is a prerequisite for this optional course.

Students majoring in biochemistry may not also declare a minor in either biology or chemistry.

**CHM 495. SENIOR SEMINAR IN BIOCHEMISTRY** \(3\) sh

This capstone course for senior biochemistry majors includes (1) analyzing and understanding advanced biochemical topics using current literature as the major source of information, (2) developing and writing a novel scientific research proposal, and (3) presenting information through both informal in-class discussions of journal articles and a more formal oral seminar presentation. Prerequisite: CHM 351. Offered spring.

**Biography**

**Chair:** Professor Haenel  
**Professors:** S. House, Kingston  
**Associate Professors:** M. Clark, Coker, Gallucci, N. Harris, MacFall, Miyamoto, L. Niedziela, Touchette, Vandermast, Vick  
**Assistant Professors:** Gammon, Izzo, Terribilini, Train, Uno  
**Adjunct:** DeVries

Biology is the study of life in all its diverse forms. As a species, we have always been deeply fascinated by other living creatures. Early humans’ dependence on other animals and plants for food, medicine and shelter fostered an appreciation for life’s interconnectedness. Modern society has rediscovered these relationships in the face of such challenges as global warming, rainforest destruction, antibiotic resistance, emerging diseases, pollution and rising cancer rates.

Our approach to biology at Elon stresses hands-on experiences in the classroom, laboratory and field. The course of study includes off-campus experiential opportunities and research seminars that encourage creative approaches to biological problems. The focus is on science as a process, not merely a collection of established facts.
The faculty strives to provide students with a high quality program that enables them to (1) develop critical thinking and problem-solving skills to better understand and meet present and future biological challenges; (2) develop competency in information retrieval, use and analysis; (3) develop an understanding of the latest technologies utilized in biological investigation; (4) acquire broad-based knowledge of biological concepts from molecules to ecosystems and (5) acquire an experiential learning opportunity through either research, internship or laboratory assistantship.

In all of Elon’s biology offerings, students receive a strong foundation in biology that prepares them for graduate studies, medical and other allied health-related professional schools, teaching and industry.

The Department of Biology offers programs leading to the Bachelor of Arts or Bachelor of Science degree with a major in Biology and a minor concentration in Biology for students majoring in another discipline.

The Department of Biology has divided its laboratory course offerings that serve as electives into three functional categories to assist students in the development of a broad-based major with the necessary fundamental biological concepts while at the same time providing the student with the flexibility to build a program that meets their individual interests and needs.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>BIO 325</td>
<td>BIO 316</td>
<td>BIO 335</td>
<td>BIO 321</td>
</tr>
<tr>
<td>BIO 348</td>
<td>BIO 318</td>
<td>BIO 342</td>
<td>BIO 335</td>
</tr>
<tr>
<td>BIO 422</td>
<td>BIO 321</td>
<td>BIO 344</td>
<td>BIO 341</td>
</tr>
<tr>
<td>BIO 445</td>
<td>BIO 331</td>
<td>BIO 350</td>
<td>BIO 342</td>
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<tr>
<td></td>
<td>BIO 332</td>
<td></td>
<td>BIO 442</td>
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<td></td>
<td>BIO 341</td>
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<td></td>
<td>BIO 343</td>
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</tr>
<tr>
<td></td>
<td>BIO 442</td>
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</tbody>
</table>

**Both the Bachelor of Arts and the Bachelor of Science degrees in Biology require the following core courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111</td>
<td>Introductory Cell Biology</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO 112</td>
<td>Introductory Population Biology</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO 113</td>
<td>Cell Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>BIO 114</td>
<td>Population Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>BIO 231</td>
<td>Biodiversity</td>
<td>4 sh</td>
</tr>
<tr>
<td>BIO 245</td>
<td>Principles of Genetics</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO 246</td>
<td>Genetics Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>BIO 261</td>
<td>Introductory Seminar</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

Upper level biology electives (300-400 level):

- One course in Molecular/Cellular Biology category
- One course in Organismal Biology category
- One course in Supraorganismal Biology category

Eight additional semester hours chosen from:

- Molecular/Cellular Biology category

| Semester Hours |
Organismal Biology category
Supraorganismal Biology category
Special topics seminars (non-lab courses)
Undergraduate Research (BIO 499) up to 4 sh
Additional requirement: At least one elective must have Diversity designation

BIO 462 Senior Seminar 2 sh

**TOTAL CORE COURSES** 40 sh

*A Bachelor of Arts degree in Biology requires the following courses:*

Core courses in Biology 40 sh
CHM 111 General Chemistry I 4 sh
CHM 112 General Chemistry II 4 sh
Choose one course from:
MTH 112 General Statistics 4 sh
MTH 212 Statistics in Application

In addition, a required experiential component selected from the following:
(a) internship
(b) research
(c) a specialized approved laboratory assistantship

**TOTAL** 52 sh

*A Bachelor of Science degree in Biology requires the following courses:*

Core courses in Biology 40 sh
CHM 111 General Chemistry I 4 sh
CHM 112 General Chemistry II 4 sh
CHM 211 Organic Chemistry I 4 sh
CHM 212 Organic Chemistry II 4 sh
One course selected from the following: 8 sh
PHY 201 General Physics I and
PHY 202 General Physics II or
PHY 221 University Physics I and
PHY 222 University Physics II
One course selected from the following: 4 sh
MTH 112 General Statistics
MTH 212 Statistics in Application

In addition, a required experiential component selected from:
(a) internship
(b) research
(c) a specialized approved laboratory assistantship

**TOTAL** 68 sh
A minor in Biology requires the following courses:

**BIO 111. Introductory Cell Biology**  
This introduction to organization and function at the cellular level, topics of study include basic cell chemistry and structure, transport, energetics and reproduction. Required for biology majors/minors. Corequisite: BIO 113. Offered fall and spring.

**BIO 112. Introductory Population Biology**  
Topics of study in this introduction to organization and function at the population level include reproduction and transmission genetics, patterns and mechanics of evolutionary change, and basic concepts of ecology. Required for biology majors/minors. Corequisite: BIO 114. Offered fall and spring.

**BIO 113. Cell Biology Laboratory**  
Students have three hours of laboratory experience per week with topics complementing concurrent study in BIO 111. Required for biology majors/minors. Corequisite: BIO 111. Offered fall and spring.

**BIO 114. Population Biology Laboratory**  
Students have three hours of laboratory experience per week with topics complementing concurrent study in BIO 112. Required for biology majors/minors. Corequisite: BIO 112. Offered fall and spring.

**BIO 161. Human Anatomy**  
This course builds a basic foundation in regional human anatomy. Lectures emphasize macroscopic and some microscopic studies of the human body. Special emphasis will be...
placed on musculoskeletal and neuromuscular anatomy. Laboratory involves progressive anatomical dissections of human cadavers, use of human anatomy instructional software and examination of osteological models. Three class hours, one laboratory per week. No credit toward biology major/minor. Offered fall and spring.

**BIO 162. HUMAN PHYSIOLOGY 4 sh**

This study of human physiology emphasizes skeletal, muscular, nervous, endocrine, heart, blood, respiratory, digestive and urinary aspects. Three class hours, one laboratory per week. No credit toward biology major or minor. Offered fall and spring.

**BIO 181. BIOLOGY LABORATORY TECHNIQUES 2 sh**

Skills taught in this training course for prospective laboratory assistants include laboratory procedures, materials preparation and grading procedures. Offered spring.

**BIO 215. DIVERSITY OF LIFE 4 sh**

This course examines the basic concepts of biological form and function based on evolutionary relationships and diversity. Students investigate the natural history of local species and their role in community dynamics. Laboratory experiences emphasize field investigations, including sampling techniques, species identification and data analysis. Satisfies the General Studies lab science requirement. This course can be used for the environmental studies major concentration in Society and Environment and the elementary education, as well as a minor in biology. No credit toward the biology major. Prerequisites: ENS 111/113 or BIO 112/114. (BIO 215 is cross-listed with ENS 215). Offered spring.

**BIO 231. BIODIVERSITY 4 sh**

This course is an integrated lab/lecture that will teach students lab and field techniques to measure and understand the diversity of the living world. Concepts include the measurement of biodiversity, the evolutionary relationships among organisms and the construction of phylogenies. Three two-hour lab/lectures per week. Required for biology majors. Prerequisites: BIO 111, 112, 113, 114. Corequisite: BIO 261. Offered fall and spring.

**BIO 245. PRINCIPLES OF GENETICS 3 sh**

Students learn basic concepts and laboratory techniques used in classic and modern genetics. Topics covered include transmission, molecular and population genetic principles and their implications in the modern world. Required for biology majors. Prerequisites: BIO 111, 112, 113, 114. Corequisite: BIO 246. Offered fall and spring.

**BIO 246. GENETICS LABORATORY 1 sh**

Students have three hours of laboratory experience with topics complementing concurrent study in BIO 245. Required for biology majors. Corequisite: BIO 245. Offered fall and spring.

**BIO 261. INTRODUCTORY SEMINAR 2 sh**

Students learn to use primary information sources and gain practice in manual and computer information retrieval, read and interpret research and review papers, write abstracts and present scientific information orally. Corequisite: BIO 231. Offered fall and spring.

**BIO 271. SPECIAL TOPICS SEMINAR 2-4 sh**

Study focuses on one biological topic per seminar in this nonlaboratory discussion course for biology majors. Topics are determined by student and faculty interest. Prerequisite: Instructor’s consent. Offered Winter Term.

**BIO 316. DEVELOPMENTAL BIOLOGY 4 sh**

This course examines the changes that occur at the cellular and subcellular level as a single-cell zygote develops into a multi-cellular organism. Topics include fertilization, blastula formation, gastrulation and organogenesis. Three class hours, one laboratory per week. Prerequisites: BIO 231; CHM 111, 112. Offered spring of even-numbered years.

**BIO 318. COMPARATIVE VERTEBRATE STRUCTURE AND FUNCTION 4 sh**

This course is an evolutionary approach to the form and function of vertebrates. Students will investigate a diversity of traits and follow the evolutionary changes of these traits from
the earliest vertebrates to mammals. The primary focus is on the move from aquatic to terrestrial habitats, the evolution of flight and the evolution of endothermy. Students will compare changes in form and function of the major organ systems through laboratory dissection of the jawless fish, shark, amphibian and mammal. Prerequisites: BIO 112, 114, 231. Offered fall of even-numbered years.

**BIO 321. MICROBIOLOGY**

In a general survey of microorganisms, study emphasizes bacteria, their cytophysiological characteristics and classification, viruses, microbial diseases and immunity, and the role of microorganisms in human affairs. Three class hours, one laboratory per week. Prerequisites: BIO 111, 113; CHM 111, 112; junior standing or consent of instructor. Offered spring.

**BIO 325. HUMAN HISTOLOGY**

Students survey human body tissues (especially of the cardiovascular, alimentary, respiratory, urinary and reproductive systems), stressing tissue identification and the relationship of microanatomy to physiology of the human body. Three class hours, one laboratory per week. Prerequisite: BIO 231. Offered fall of odd-numbered years.

**BIO 331. THE BIOLOGY OF ANIMAL BEHAVIOR**

This course examines why animals behave the way they do. Specific topics include the causation, development, function and evolution of behavior in wild and captive animals. Three class hours and one laboratory per week. Prerequisites: BIO 112, 114 and 231 or consent of instructor.

**BIO 332. ZOOLOGY**

Students survey the animal kingdom (emphasizing selected vertebrates and invertebrates) investigating basic concepts of morphology, anatomy, physiology and taxonomy as they affect the ecology of the animal. Three class hours, one laboratory per week. Prerequisite: BIO 231.

**BIO 335. FIELD BIOLOGY**

In this field-oriented course, restricted to selected natural taxa, environments or biological phenomena, in-depth field study may include identification, classification, life histories and relationships among organisms. Prerequisite: Consent of instructor. Offered winter and/or summer.

**BIO 341. BOTANY**

This survey of the plant kingdom (emphasizing vascular plants) includes general morphology, anatomy, physiology of metabolism and growth, economic importance and identification. Three class hours, one laboratory per week. Prerequisite: BIO 231. Offered fall.

**BIO 342. AQUATIC BIOLOGY: THE STUDY OF INLAND WATERS**

This course considers the chemical, physical and biological properties of freshwater ecosystems including streams, rivers, ponds and lakes. Topics include the geomorphology of inland waters, thermal stratification, nutrient cycles, community metabolism, plankton community dynamics, seasonal succession and eutrophication resulting from human activities. Weekly laboratory meetings provide hands-on experience with the field techniques of freshwater scientists. Prerequisites: BIO 231 or ENS 215. Offered spring of even-numbered years.

**BIO 343. CLINICAL ANATOMY**

This course uses the regional approach to build a strong foundation in human anatomy. Lectures emphasize structure, basic clinical concepts and some functional and mechanical relationships at the gross anatomical level. Laboratory includes dissection of human cadavers, use of human anatomy instructional software, examination of osteological models and applications of basic radiology. Three class hours, one laboratory per week. Prerequisites: BIO 231 and 245. Offered fall.

**BIO 344. EVOLUTION**

In this course, students investigate the causes, rates and implications of evolutionary change in biological systems. Evolution by natural selection is the unifying theory of biology link-
ing phenomena that occur at many different levels of biological organization. Thus, natural selection is studied in depth. Other topics include speciation, rates of molecular change, causes of mass extinctions and sexual selection. Three lecture hours, one laboratory per week. Prerequisites: BIO 112, 114 and 245. Offered spring of odd-numbered years.

BIO 346. WETLANDS ECOLOGY AND MANAGEMENT  4 sh
This course will present the biological, chemical and physical properties of wetland ecosystems in North America. Topics will include hydrology, biogeochemistry, biological adaptations, ecology and functional aspects of wetlands. Principles behind wetland classification, delineation and management will also be introduced. This class will maintain a strong field component involving field techniques, monitoring and evaluation of wetlands. At least two weekend field trips, involving rigorous scientific inquiry will be required. Prerequisites: BIO 231 or ENS 215 or permission of Instructor. (BIO 346 is cross-listed with ENS 346).

BIO 348. BIOTECHNOLOGY  4 sh
Students explore how biological systems are utilized in scientific research. In collaboration with their peers, students will apply the techniques of molecular biology (restriction digestion, transformation, DNA hybridization, PCR, etc.) to investigate a research question. Emphasis will be placed on protocol design, solution preparation and critical analysis of research data. Additionally, the social context of biotechnology will be investigated as students explore the risks and rewards in this expanding field. Two laboratory periods, two class hours per week. Prerequisite: BIO 245. Offered spring of odd-numbered years.

BIO 350. GENERAL ECOLOGY  4 sh
Students explore ecological principles at population, community and ecosystem levels in this study of the interrelationships of organisms with their biotic and abiotic environments. Three lecture hours, one laboratory per week. Prerequisites for biology major: BIO 231. Prerequisites for environmental studies major: BIO 112, 114, 215. Offered fall.

BIO 371. SPECIAL TOPICS SEMINAR  2-4 sh
Each seminar — a nonlaboratory discussion course for biology majors — focuses on one biological topic determined by faculty interest. Offered Winter Term.

BIO 422. MOLECULAR AND CELLULAR BIOLOGY  4 sh
This course is a study of the structure and function of prokaryotic and eukaryotic cells at the molecular level. It examines in depth specific biochemical pathways and processes essential to life. Topics include considerable coverage of the principles, techniques and applications of molecular biology. Four class hours. Prerequisites: BIO 245; CHM 211, 212. Offered spring of even-numbered years.

BIO 425. PLANT PHYSIOLOGY  4 sh
Topics in this study of the life processes of plants include photosynthesis, mineral nutrients, movement of materials, plant growth substances and senescence. Three class hours, one laboratory per week. Prerequisites: BIO 231; CHM 211, 212 or permission. Offered spring of odd-numbered years.

BIO 445. ADVANCED GENETICS  4 sh
Advanced problem solving in prokaryotic and eukaryotic genetics. The focus is on the applications of advanced concepts in transmission, molecular and population genetics to problem solving in the modern world. Three class hours, one laboratory per week. Prerequisites: BIO 245; CHM 211, 212. Offered fall of even-numbered years.

BIO 462. SENIOR SEMINAR  2 sh
This course provides students with the opportunity to conduct both individual and group literature research projects of their own choosing based on recently published scientific papers. Students participate in group discussions of the current literature, research and write a scientific review paper, and develop a formal oral presentation. Recommended for senior year. Offered fall.
BIO 471. SPECIAL TOPICS SEMINAR 2-4 sh
Each seminar — a nonlaboratory discussion course for biology majors — focuses on one biological topic determined by student and faculty interest. Must have instructor’s consent.

BIO 481. INTERNSHIP IN BIOLOGY 1-4 sh
Advanced-level work experience in a biological field is offered on an individual basis when suitable opportunities can be arranged. Prerequisite: Permission of department.

BIO 499. RESEARCH 1-4 sh
Students conduct laboratory and/or field research under the direction of the biology faculty. Maximum eight semester hours total credit. Prerequisite: Permission of the department.

Business: Martha and Spencer Love School of Business

The Martha and Spencer Love School of Business strives to provide exceptional learning experiences that facilitate the transformation of students into knowledgeable, responsible business professionals and leaders who make a difference in their professions, their organizations and the global economy.

The school is accredited by AACSB International – The Association for the Advancement of Collegiate Schools of Business.

Students choose among eight majors. Students selecting the B.S.B.A. degree option should note the core requirements listed below in addition to consulting the alphabetical list of majors for course requirements in each major.

- Accounting ............................................. (B.S. degree)
- Economics ............................................. (A.B. degree)
- Entrepreneurship ...................................... (B.S.B.A. degree)
- Finance ............................................. (B.S.B.A. degree)
- International Business............................. (B.S.B.A. degree)
- International Economics........................... (A.B. degree)
- Management ........................................ (B.S.B.A. degree)
- Marketing ........................................... (B.S.B.A. degree)

The Bachelor of Science in Business Administration (B.S.B.A.) degree program begins with a solid grounding in the traditional liberal arts and sciences. This preparation is an integral part of becoming an informed, responsible and capable business leader. An Elon education emphasizes the development of the whole person – mind, body and spirit. The B.S.B.A. courses at Elon advance that commitment by emphasizing business knowledge acquisition, skill development through hands-on learning and experiential activities, and the development of discipline, integrity and an ethic of service.

The B.S.B.A degree offers five majors: entrepreneurship, finance, international business, management and marketing. Students majoring in one of these areas take courses in a common core representing the functional business disciplines (e.g. accounting, economics, finance, management, marketing, etc.). Our coursework emphasizes active learning and appreciative inquiry. Rather than dictate a set of principles to be memorized, our programs emphasize the integration of business knowledge and the application of that knowledge to organizational problems. We encourage hands-on-learning through internships, co-op experiences, service learning and classroom instruction that engages students in the study and practice of business. Students also develop skills in written and oral communications, team-building, problem solving and decision-making in our increasingly global business environment.
The B.S.B.A. degree program at Elon emphasizes academic challenge, mature intellectual development and a lifetime of learning. Our graduates go on to leadership positions in business and industry in for-profit and not-for-profit organizations. Our graduates are prepared for a variety of assignments because they possess an extensive array of knowledge, skills and abilities.

*The Bachelor of Science in Business Administration degree with a major in Entrepreneurship, Finance, International Business, Management or Marketing requires the following core requirements.*

**Core Requirements**

Select one course from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 116</td>
<td>Applied Calculus</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 111</td>
<td>Principles of Economics</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 203</td>
<td>Statistics for Decision-Making</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Principles of Financial Accounting</td>
<td>4 sh</td>
</tr>
<tr>
<td>ACC 212</td>
<td>Principles of Managerial Accounting</td>
<td>4 sh</td>
</tr>
<tr>
<td>CIS 211</td>
<td>Management Information Systems</td>
<td>4 sh</td>
</tr>
<tr>
<td>BUS 202</td>
<td>Business Communications</td>
<td>4 sh</td>
</tr>
<tr>
<td>BUS 221</td>
<td>Legal and Ethical Environment of Business</td>
<td>4 sh</td>
</tr>
<tr>
<td>MKT 311</td>
<td>Principles of Marketing</td>
<td>4 sh</td>
</tr>
<tr>
<td>MGT 323</td>
<td>Principles of Management &amp; Organizational Behavior</td>
<td>4 sh</td>
</tr>
<tr>
<td>BUS 326</td>
<td>Operations Management</td>
<td>4 sh</td>
</tr>
<tr>
<td>FIN 343</td>
<td>Principles of Finance</td>
<td>4 sh</td>
</tr>
<tr>
<td>BUS 465</td>
<td>Business Policy</td>
<td>4 sh</td>
</tr>
<tr>
<td>LSB 381</td>
<td>Internship in Business</td>
<td>1-4 sh</td>
</tr>
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</table>

**TOTAL CORE REQUIREMENTS**  

53-56 sh

*A minor in Business Administration* requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Principles of Financial Accounting</td>
<td>4 sh</td>
</tr>
<tr>
<td>FIN 303</td>
<td>Introduction to Finance</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 111</td>
<td>Principles of Economics</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 304</td>
<td>Introduction to Marketing</td>
<td>4 sh</td>
</tr>
<tr>
<td>MKT 311</td>
<td>Principles of Marketing</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

(Prerequisites: BUS 202 and ECO 111)

Choose one course from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 303</td>
<td>Introduction to Managing</td>
<td>4 sh</td>
</tr>
<tr>
<td>MGT 323</td>
<td>Principles of Management &amp; Organizational Behavior</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**TOTAL**  

20 sh

*Students majoring in Entrepreneurship, Finance, International Business, Management, Marketing or Accounting are not allowed to declare a minor in Business Administration.*
Business Administration Courses

BUS 202. BUSINESS COMMUNICATIONS  
Methods for organizing ideas, formatting information, understanding audience needs and developing a professional communication style are emphasized in this course focusing on oral and written communication. Students practice writing business reports, letters, email messages and memoranda; students sharpen their skills in effective oral presentation through individual and team presentations. Cases and exercises emphasize informative and persuasive communication. Prerequisites: ENG 110 and sophomore standing or higher. Offered fall and spring.

BUS 221. LEGAL AND ETHICAL ENVIRONMENT OF BUSINESS  
This course provides an introduction to the relationships among the firm, society, and the laws and regulations governing the conduct of business. Topics covered include corporate social responsibility, sustainable business practices, the structure of the legal system, as well as key substantive areas of legal regulation such as antitrust, intellectual property, torts, products liability, contracts, employment and more. Offered fall and spring.

BUS 225. INFORMATION SYSTEMS FOR ONLINE TRADING  
The objective of this course is to provide students the knowledge to manage their own personal investments with today’s available online trading systems and financial knowledge base systems; to meet that objective, the course will expose students to various information systems that are available online to help them in trading/investment decisions. The course will also cover the nature of financial markets, how technology systems play pivotal roles in these markets, and the technical, economic and global forces affecting the movement of stocks and options prices. Offered winter.

BUS 301. NUMBER ADVANCED APPLICATIONS: EXCEL FOR BUSINESS  
Microsoft Office Excel is a rich computer application with impressive analytical capability and more and more businesses, especially those dealing with statistical and financial information, are finding its powers critical to their future success. This course exposes students to some of the advanced capabilities of Excel, including statistical analysis, financial analysis and modeling, PivotTables, scenario tools, a variety of add-ins, the creation of macros, and advanced charts and graphs. After taking this course, students will have demonstrated knowledge of the more advanced features of Microsoft Excel. Offered fall, winter and spring.

BUS 303. INTRODUCTION TO MANAGING  
For nonmajors and business administration minors, this introductory course examines universal business processes such as goal setting, planning, decision making, motivation, human resource management and control that are utilized by both not-for-profit and government organizations. Sophomore standing required. Course credit not given for BUS 303 and MGT 323. Offered fall, winter and spring. Sophomore standing required.

BUS 304. INTRODUCTION TO MARKETING  
For nonmajors and business administration minors, this introductory course examines marketing principles which are applied by all organizations. Credit not given in the major for BUS 304. Course credit not given for both BUS 304 and MKT 311. Offered fall, winter and spring. Sophomore standing required.

BUS 326. OPERATIONS AND SUPPLY CHAIN MANAGEMENT  
This course explores the importance of operational methodologies such as demand forecasting, inventory management, project management, quality assurance, and just-in-time and lean activities within the context of supply chain management and their impact on the profitability of the company. Operations and supply chain management together form one of the three core business functions. Prerequisites: ACC 212, ECO 203, MGT 323 or BUS 303.
BUS 366.  FIELD EXPERIENCE IN BUSINESS  4 sh
This course revolves around visits to diverse local businesses and analyses of the businesses visited. Prerequisite: Permission of instructor. Sophomore standing required.

BUS 465.  BUSINESS POLICY  4 sh
This capstone course integrates students’ experiences and previous study through case studies and simulated business decision exercises. Prerequisites: MKT 311, MGT 323; BUS 326 for entrepreneurship, finance, international business, management and marketing majors or ACC 336 for accounting majors; ECO 301 (entrepreneurship, management and marketing majors only); ECO 310 for finance majors; ECO 314 for international business majors; FIN 343; and senior status. Offered fall and spring.

BUS 472.  SEMINAR: SPECIAL TOPICS IN INTERNATIONAL BUSINESS  4 sh
This advanced study consists of readings and discussion of special topics and involves participation by students, faculty and other resource persons.

Love School of Business Courses

LSB 352.  STRATEGIES FOR CAREER PREPAREDNESS  1 sh
The purpose of this course is to further prepare LSB majors for the exciting and challenging world of business. The course is intended to help prepare students to secure a job or internship through self-assessment, résumé creation, interviewing skills, networking skills, business etiquette and some basic professional communication skills. Sophomore standing or higher required.

LSB 381.  INTERNSHIP IN BUSINESS  1-4 sh
This course is designed to provide LSB majors with hands-on experience. Students will work in off-campus positions to confirm or clarify career goals, test what they have learned in their classes, gain a clearer sense of what they still need to learn and build their professional network. This program will be managed and monitored by the LSB internship coordinator and one credit hour is based on at least 80 work hours. Students systematically evaluate themselves and the organization in which they work over the course of the term to determine: “If offered a career employment opportunity with this organization at the end of the term, would I accept? Why or why not?” The “why or why not” will focus on the potential fit between a student’s individual strengths/interests and the organization’s environment and culture.

Chemistry

Chair: Associate Professor Wright
Professors: Daniele, Grimley, Sienerth
Associate Professors: Karty, Matera
Assistant Professor: Moore, Ponton
Adjuncts: Bernhardt, Bowling, Chandler, LaBennett, Schwartz
Science Lab Manager: Weller

The Department of Chemistry offers courses of study leading to a Bachelor of Science degree (65 semester hours), Bachelor of Arts degree (49 semester hours) or a minor in Chemistry (24 semester hours). Students satisfying the requirements of the B.S. degree will be certified by the American Chemical Society.

Students who major in chemistry are qualified for many pursuits. They may choose to work in the chemical industry, continue advanced studies in chemistry, take professional training in medicine, dentistry or other health-related fields, prepare to teach at the secondary level or pursue opportunities in related fields (environmental science, forensics, business and industry).
Elon’s chemistry program provides the opportunity for students to engage with faculty in undergraduate research and to gain direct experience with new instrumentation using today’s state-of-the-art technology. The results of the research projects are presented at local, regional and national scientific meetings.

Another key feature of the program is the introduction and use of instrumentation in the first-year general chemistry sequence and its continued emphasis throughout the chemistry curriculum. Student participation in assisting in laboratory and recitation instruction is strongly advised and supported.

A Bachelor of Science (ACS certified) degree in Chemistry requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 111</td>
<td>General Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 112</td>
<td>General Chemistry II</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 211</td>
<td>Organic Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 212</td>
<td>Organic Chemistry II</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 311</td>
<td>Quantitative Analysis</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 332</td>
<td>Physical Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 334</td>
<td>Physical Chemistry II</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 341</td>
<td>Inorganic Chemistry</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 351</td>
<td>Biochemistry</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 499</td>
<td>Research¹²</td>
<td>2 sh</td>
</tr>
<tr>
<td>CHM 494</td>
<td>Senior Seminar in Chemistry</td>
<td>3 sh</td>
</tr>
</tbody>
</table>

Choose eight hours from the following: 8 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 305</td>
<td>Environmental Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 321</td>
<td>Instrumental Analysis</td>
<td></td>
</tr>
<tr>
<td>CHM 353</td>
<td>Advanced Biochemistry</td>
<td></td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 221</td>
<td>Calculus II</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 221</td>
<td>University Physics I</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 222</td>
<td>University Physics II</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

(PHY 201 and 202 may be substituted for PHY 221 and 222)

**TOTAL** 65 sh

¹ ACS allows research via an REU or SURE as a valid research experience. If a student has a summer research experience they may take an additional elective with a lab in place of the 2 sh of CHM 499.

² If a student has below a 3.0 average and cannot take research these 2 sh can be substituted by a course approved by the department chair. Their degree will not be certified by the ACS.

A Bachelor of Arts degree in Chemistry requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 111</td>
<td>General Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 112</td>
<td>General Chemistry II</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 211</td>
<td>Organic Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 212</td>
<td>Organic Chemistry II</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
CHM 311 Quantitative Analysis 4 sh
CHM 332 Physical Chemistry I 4 sh
CHM 341 Inorganic Chemistry 4 sh
CHM 494 Senior Seminar in Chemistry 3 sh
MTH 121 Calculus I 4 sh
PHY 201 General Physics I 4 sh
PHY 202 General Physics II 4 sh

(PHY 221 and 222 may be substituted for PHY 201 and 202)
Six semester hours from CHM (at least 4 sh at the 300-400 level) 6 sh

TOTAL 49 sh

A minor in Chemistry requires the following courses:

CHM 111 General Chemistry I 4 sh
CHM 112 General Chemistry II 4 sh
CHM 211 Organic Chemistry I 4 sh
CHM 212 Organic Chemistry II 4 sh
Eight additional hours selected from the following: 8 sh

CHM 305 Environmental Chemistry
CHM 311 Quantitative Analysis
CHM 321 Instrumental Analysis
CHM 341 Inorganic Chemistry
CHM 351 Biochemistry
CHM 353 Advanced Biochemistry
CHM 471-79 Special Topics in Chemistry (2-4 sh)

TOTAL 24 sh

Bachelor of Arts degree in Chemistry/Chemical Engineering: See requirements listed in Engineering.

CHM 101. BASIC CONCEPTS IN CHEMISTRY 3 sh
The course is designed to meet the math/science General Studies requirement for nonscience majors. The material covered includes atomic structure, chemical changes, descriptive chemistry of selected elements, introduction to organic chemistry and how chemistry applies to consumer products and the environment. No credit given to students with prior credit for CHM 111. No credit for major/minor. Corequisite: CHM 102. Offered fall and spring.

CHM 102. BASIC CONCEPTS IN CHEMISTRY LABORATORY 1 sh
Laboratory exercises are based upon selected foundational concepts covered in CHM 101. No credit for students with prior credit for CHM 113. No credit for major/minor. Corequisite: CHM 101. Offered fall and spring.

CHM 111. GENERAL CHEMISTRY I 4 sh
This course introduces fundamental principles of chemistry with special emphasis on developing skills in quantitative reasoning. Topics include stoichiometry, nomenclature, gases, atomic structure and periodicity, theories of chemical binding and thermochemis-
try. Prerequisite: High school chemistry. Corequisite: CHML 111, laboratory component. Offered fall and spring.

CHM 112. GENERAL CHEMISTRY II
4 sh
The study of fundamental chemical principles continues with chemical kinetics, liquid/solid states, chemical equilibrium (gas phase and acid/base), thermodynamics and electrochemistry. Prerequisite: CHM 111. Corequisite: CHML 112, laboratory component. Offered spring.

CHM 211. ORGANIC CHEMISTRY I
4 sh
This course introduces students to the chemistry of carbon compounds, including nomenclature, the influence of structure on physical/chemical properties, reaction mechanisms, stereochemistry, conformational analysis, synthesis and characteristic reactions of different organic compounds. Prerequisite: CHM 112. Corequisite: CHML 211, laboratory component. Offered fall.

CHM 212. ORGANIC CHEMISTRY II
4 sh
Continuing the study of organic chemistry, this course emphasizes compounds containing oxygen or nitrogen and culminates with a survey of lipids, carbohydrates and proteins. Prerequisite: CHM 211. Corequisite: CHML 212, laboratory component. Offered fall.

CHM 305. ENVIRONMENTAL CHEMISTRY
4 sh
This course provides a survey of chemical topics applying to selected pollutants in the air, water and soil. Topics include production and diffusion, photochemical processes, techniques for analysis, acid-base and redox chemistry, environmental and biological effects. Laboratory work includes acid/base and buffer chemistry, analysis of heavy metal pollutants sampling techniques and resistance of selected materials to certain pollutants. No credit toward B.S. degree. Prerequisites: CHM 211; C- or better in CHM 112; Corequisite: CHML 305, laboratory component. Offered spring of alternate years.

CHM 311. QUANTITATIVE ANALYSIS
4 sh
This course introduces chemical methods of quantitative analysis, including classical, volumetric and selected instrumental methods, a discussion of error and uncertainty in measurements, and elementary statistics. Discussion also covers the underlying physical and chemical theories and laws with emphasis on chemical equilibrium. Prerequisite: C- or better in CHM 112. Corequisite: CHML 311, laboratory component. Offered fall.

CHM 321. INSTRUMENTAL ANALYSIS
4 sh
This course offers theory and practice of instrumental methods, with emphasis placed on spectroscopic (UV/VIS, IR, NMR, AA) and mass spectrometric methods of analysis. Prerequisites: CHM 211, 212, 311. Corequisite: CHML 321, laboratory component. Offered spring.

CHM 332. PHYSICAL CHEMISTRY I
4 sh
The mathematical development of the physical principles in chemistry is explored. Topics include development and application of the laws of thermodynamics, equations of states, kinetic molecular theory, elementary electrochemistry and equilibria. Laboratory experiments are designed to complement lectures and include studies of phase relationships, calorimetry and gas laws. Three hours of lecture and three hours of lab per week. Prerequisites: MTH 121, PHY 202 or 222; C- or better in CHM 112. Corequisite: CHML 332, laboratory component. Offered fall.

CHM 334. PHYSICAL CHEMISTRY II
4 sh
The principles of quantum mechanics are developed and illustrated by use of simple systems. Spectroscopic techniques are investigated as tools for probing structure and properties of molecules. Other topics include kinetics and group theory. Laboratory experiments are designed to complement lectures and include multiple techniques to investigate reaction kinetics, laser spectroscopy, UV-VIS spectroscopy and computational techniques. Three hours of lecture, three laboratory hours per week. Prerequisites: CHM 332, MTH 221, PHY 222. Corequisite: CHML 334, laboratory component. Offered spring.
CHM 341. **INORGANIC CHEMISTRY**  
4 sh  
This course will begin with nuclear chemistry, atomic structure, simple bond theory, solid state chemistry, the periodic relationships of the elements. It will then provide an in-depth introduction into symmetry and group theory with applications to the description of chemical bonding in molecular orbital theory. Acid-base and donor-acceptor chemistry and the descriptive chemistry of the main group elements will be followed by a survey of organometallic chemistry. The application of physical methods of structure determination of inorganic compounds by magnetic and spectral techniques including magnetic susceptibility, UV/VIS and IR spectroscopies and NMR spectrometry will be presented throughout the course. Prerequisite: C- or better in CHM 212. Corequisite: CHML 341, laboratory component. Offered fall.

CHM 351. **BIOCHEMISTRY**  
4 sh  
This is a survey of biochemistry as it relates to the physiology of organisms. Topics include biochemical methodology, buffers, proteins (structure, function and synthesis), enzymes, bioenergetics, anabolism and catabolism of carbohydrates and lipids, and metabolic regulation. Prerequisites: C- or better in CHM 212. Corequisite: CHML 351, laboratory component. Offered fall.

CHM 353. **ADVANCED BIOCHEMISTRY**  
4 sh  
Topics chosen to complement CHM 351 include a detailed study of primary and intermediary metabolism: syntheses and degradation of lipids, amino acids and nucleotides; metabolic coordination; signal transduction; molecular motors; and the role of cytochrome c. The use of selected case studies from medical schools will be integrated into the study of metabolism. The course will also include a student-led discussion of selected articles from the primary literature in biochemistry. Prerequisite: CHM 351. Corequisite: CHML 353, laboratory component. Offered spring.

CHM 471-79. **SPECIAL TOPICS IN CHEMISTRY**  
2-4 sh  
Advanced topics offered to meet the needs and interests of students include methods in forensic and medicinal chemistry, nuclear chemistry, nuclear magnetic resonance spectrometry, advanced organic or polymer chemistry. Prerequisite: CHM 212 or permission of chair.

CHM 481. **INTERNSHIP**  
1-4 sh  
Students gain advanced-level work experience in a chemical field. Internships are offered on an individual basis when suitable opportunities can be arranged. Prerequisite: Permission of department.

CHM 491. **INDEPENDENT STUDIES**  
1-4 sh

CHM 494. **SENIOR SEMINAR IN CHEMISTRY**  
3 sh  
This capstone course will combine examination of an advanced special topic that draws from several sub-disciplines in chemistry with an intensive student seminar presentation based on recent literature. Possible topics include physical organic, bioanalytical, advanced environmental and organometallic chemistry. Prerequisites: Senior standing and CHM 332. Offered spring.

CHM 499. **RESEARCH**  
1-3 sh  
In collaboration with a chemistry faculty member, students undertake experimental or theoretical investigations. Prerequisite: Approval of department chair. Offered fall, winter and spring.

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**Civic Engagement Scholars**

**Academic Coordinator:** Associate Professor A. Darby  
**Co-Curricular Coordinator:** Mary Morrison, Dir. of the Kernodle Center for Service Learning & Community Engagement
The Civic Engagement Scholars program educates, prepares and inspires students to become agents of change in their communities and in society. Scholars acquire the knowledge and skills necessary to become engaged, active citizens throughout their lives. Building on academic study, community-based research and critical analysis of social issues, scholars link knowledge and social action to address unmet human needs in collaboration with the local community.

Over the course of two-to-three years (depending on how a student organizes her/his schedule) students participate in course work, service-learning, seminars, service trips and workshops that will engage them in understanding the needs and problems of the local community and how to respond to these needs. Toward this end, students will serve in, study and develop genuine partnerships with local community agencies over the course of their time in the program. The program will culminate in the students exploring multiple pathways (e.g., service, policy, public awareness/community education and innovation/social entrepreneurship) through which they can make their own contribution to the local community in response to identified community needs.

**The curricular structure is summarized in the following:**

**Academic Requirements**

- SOC 220: Social Issues and Problems in the Local Community
- One additional course with the Service-Learning designation (SL)
- CES 302: Civic Engagement Scholars Seminar I (1 sh)
- CES 402: Civic Engagement Scholars Seminar II (1 sh)

**Co-curricular Requirements**

- Participate in one service trip sponsored by the Kernodle Center for Service Learning and Community Engagement (KCSL)
- Complete 40 additional community service hours, through KCSL and/or through other coursework
- Attend at least one workshop sponsored by KCSL

**Completion of Pathways to Civic Engagement Project (capstone project and portfolio)**

The capstone project will be completed during a student's last one – two semesters in the program. The project will involve developing an electronic portfolio that features key components that illustrate significant learning along the student's journey. These components include (1) a product from CES 302 that illustrates/explains what civic engagement means within the domain of the student's major; (2) evidence to substantiate participation in each of the co-curricular requirements and (3) a final project completed in conjunction with CES 402, exploring some of the multiple pathways of civic engagement (e.g., service, policy, public awareness/community education, and innovation/social entrepreneurship). The portfolio will document the student's learning process, discoveries and the product of the student's chosen pathway(s).

**The following courses are required of students admitted to the Civic Engagement Scholars program:**

**SOC 220. ** SOCIAL ISSUES AND PROBLEMS IN THE LOCAL COMMUNITY  

Students investigate social issues and problems in our local community (i.e., the Elon/Burlington area, Alamance County or North Carolina as a whole) and use an interdisciplinary framework, heavily grounded in sociological theory and analysis to discover the
connections between local, national and global problems. Study focuses on causes, consequences and policies concerning such problems as poverty and racism and issues pertaining to institutions such as family, economy, government, medicine, religion and others. This course is a service-learning course.

**CES 302. CIVIC ENGAGEMENT SCHOLARS SEMINAR I**

The focus of this seminar will be exploring what civic engagement means within the domain of the student’s disciplinary major(s). Offered every semester. Prerequisite: SOC 220 or permission of instructor.

**CES 402. CIVIC ENGAGEMENT SCHOLARS SEMINAR II**

The focus of this seminar is preparation and completion of capstone portfolio projects. Offered every semester. Prerequisites: SOC 220 and CES 302.

**Classical Studies**

**Coordinator:** Assistant Professor Pregill

Classical Studies is an interdisciplinary program of studies in the languages, history, culture and heritage of the ancient and early modern world. This program gives students an opportunity for concentrated study of “classical” ideas and practices, which form an important part of Western civilization. In addition, the program examines the ways that these ideas and practices have influenced and been modified by later generations. A minor in Classical Studies can serve as a valuable complement to many fields, providing depth and context for a student’s other courses, encouraging analytical study of primary sources and allowing the pleasure of reading some of Western civilization’s greatest works.

**A minor in Classical Studies requires the following courses:**

Twenty semester hours selected from the list below and/or from other approved courses. At least eight semester hours must be at or above the 300-level. Courses must be chosen from at least three departments.

Acceptable courses in Classical Studies include:

- **ARH 210** Art History I: Gods and Emperors
- **ARH 211** Art History II: Cathedrals to Conquest
- **CLA 110** Introduction to Classical Studies
- **ENG 221** British Literature I
- **ENG 238** African American Literature before 1945
- **ENG 321** Classical Literature
- **ENG 322** Medieval Literature
- **ENG 323** Renaissance Literature
- **FNA 265** Fine Arts in Italy/ELR
- **FNA 313** British Art and Architecture
- **GRK 121** Ancient and Biblical Greek I
- **GRK 122** Ancient and Biblical Greek II
- **GST 222** Italy’s Heritage
- **GST 226** Culture of Ancient Rome (2 sh)
- **GST 246** Greece: Classics In Context
- **GST 262** Culture of Ancient Greece (2 sh)
- **HST 111** Europe and the Mediterranean World to 1500
In addition to these catalog courses, occasional courses with special topics in Classical Studies will be offered.

**CLA 110. ****INTRODUCTION TO CLASSICAL STUDIES**  
4 sh

This course is a substantive examination of archaic and classical Greek or Roman poetry, history, art and philosophy, with an eye to modern reception of the ancient texts and artistic works. Students reflect on how reading these works can inform their understanding of contemporary (and timeless) debates about warfare, education, imperialism, the role of art in society and how to live the “just life.” Course format includes daily writing, short lectures and small group discussion. Counts as partial fulfillment of the General Studies Expression requirement. Offered fall semester.

Coaching

See Physical Education and Health
Communications

Dean: Professor Parsons
Associate Deans: Associate Professor Gaither, Associate Professor Grady
Department Chair: Associate Professor Gisclair
Associate Department Chair: Associate Professor Ward-Johnson
Professors: Book, Copeland
Assistant Professors: Austin, Bravo, N. Clark, Gallagher, Gibson, Haygood, W. Johnson, Lackaff, Lellis, B. Miller, Motley, Nam, Negin, Tonkins, Triche, Xu
Senior Lecturer: Piland
Lecturer: Saltz
Instructors: Berkner, Donohue, Eisner, Fox, Gretton, Harrison, Hondros, Kass, McMerty

Communications serves four purposes in society: to inform, to persuade, to entertain and to discover. Amid these multiple purposes, communications plays an important role in serving the public good and promoting citizenship in a democracy.

The School of Communications prepares students to think, write and produce meaningful content in a digital and global age. Students choose among four majors. Consult the alphabetical list of majors for specific course requirements in each major.

- Journalism (print, online and broadcast news)
- Strategic Communications (public relations and advertising)
- Media Arts and Entertainment (broadcast production, cinema and new media)
- Communication Science (role of media and communication in society)

In addition, the school offers courses for students interested in sports communications, photojournalism, audio recording and international communications.

Outside of class, students participate in campus media and organizations such as the student newspaper (The Pendulum and Pendulum Online), Elon Student Television (Phoenix14News and other shows), the campus radio station (WSOE-FM), the university yearbook (Phi Psi Cli), a student cinema organization (Cinelon), a documentary production program (elondocs), an Elon sports show (airs on ESPN2 in the state), and a full-service student agency (Live Oak Communications).

A broad university education prepares students to be knowledgeable in a complicated world, and the school’s curriculum provides the concepts and skills to succeed in a chosen career. About two-thirds of the school’s graduates go directly into media and communications careers. Others find that a communications degree prepares them well for graduate school, law school, business opportunities and public service.

Elon University is one of only 18 private colleges and universities in the nation to have an accredited communications program.

For all School of Communications majors:

ACCRREDITATION RULE. All students must complete at least 80 credit hours outside the School of Communications, with 65 or more of those hours in the liberal arts and sciences.

REQUIRED INTERNSHIP. All students must complete an off-campus professional internship in communications. Students enroll in COM 381 (Communications Internship), for one or two credit hours, based on 80 work-hours per credit hour. Students may earn up to a total of four credit hours of COM 381. (COE Co-op Work Experiences credit...
cannot count toward the major or toward the 80 hours required outside the School of Communications.)

DOUBLE MAJOR. To encourage students to develop a second area of academic depth, the School of Communications waives eight hours of COM electives for any student completing a double major outside of Communications (COM). For example, a student double majoring in journalism and history would need a total of 44 COM hours instead of the normal 52 hours.

REQUIRED MINOR OR OTHER OPTION. To promote academic depth, all students must complete a minor or double major outside of Communications (COM) or complete a semester abroad (totaling 12 credit hours or more) in an Elon-approved program.

Optional Emphasis

Students in any School of Communications major may choose to dedicate two COM electives and complete COM 381 (Communications Internship) in one of the following emphasis areas:

**Writing**
- COM 340  Feature Writing
- COM 440  Public Affairs Reporting

**Advertising**
- COM 338  Advertising in Society
- COM 438  Advertising Techniques

**Photojournalism**
- COM 328  Photojournalism
- COM 428  Visual Storytelling

**Documentary**
- COM 355  The Documentary
- COM 455  Producing the Documentary

**Sports Communications**
- COM 335  Sports and Media
- COM 342  Sports Information or
- COM 345  Sports Broadcasting

**Audio Recording**
- COM 354  Audio for Visual Media
- COM 364  Audio for Sound Media

**International Communications**
- COM 330  International Communications
  Semester abroad communications course

A minor in Communications requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>COM 100</td>
<td>4 sh</td>
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<tr>
<td>Sixteen additional COM hours, with at least four hours at 300/400 level</td>
<td>16 sh</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>20 sh</strong></td>
</tr>
</tbody>
</table>
COM 100. COMMUNICATIONS IN A GLOBAL AGE 4 sh
Contemporary media play a vital role in society, both locally and globally. In this course, students study the importance of books, newspapers, magazines, recordings, movies, radio, television and the Internet, and the messages carried through news, public relations and advertising. The course emphasizes the relationship of media and democracy, ethical decision making, the diversity of audiences and the global impact of communications.

COM 110. MEDIA WRITING 4 sh
Clear, logical writing is necessary to communicate effectively to an audience. This course focuses on background research, interviews, accuracy, attribution and styles of writing (print, broadcast, online, news releases). Grammar and language skills are refined, and Associated Press style is introduced.

COM 220. DIGITAL MEDIA CONVERGENCE 4 sh
Convergence is the blending of text, sounds and images in the media environment to create new media. This course features units on visual literacy, photo editing, audio processing, video editing and web publishing. Students learn theories of aural and visual aesthetics and produce individual web pages. Prerequisite: C- or better in COM 100.

COM 225. THE PROCESS OF COMMUNICATION 4 sh
Theories seek to explain how and why we communicate, and with what effect. This course examines communication as a field of study, focusing both on human and mediated communication (news, persuasion, entertainment). In the scientific method, theories provide a way to understand, explain, predict and implement communication processes and events. Prerequisite: C- or better in COM 100.

COM 230. MEDIA HISTORY, MEDIA TODAY 4 sh
A free society requires a free and vibrant media. This course examines the development, growth and impact of media in America. It studies the major trends, important personalities, ownership structures, technological advancements, diversity of audiences, rise of media convergence and societal impact ranging from colonial newspapers in the 1600s to today’s print, broadcast and online media. Prerequisite: C- or better in COM 100.

COM 232. PUBLIC RELATIONS AND CIVIC RESPONSIBILITY 4 sh
Public relations is the bridge between an organization and its many publics. This course emphasizes theories, strategies and techniques in organizational environments (corporate, not-for-profit, associations, agencies, government) and studies historical roots, formation of public opinion, crisis management, marketing and the ethical requirements to be a responsible corporate citizen. Prerequisite: C- or better in COM 100.

COM 234. BROADCASTING IN THE PUBLIC INTEREST 4 sh
Broadcasting was conceived and is regulated to serve the public interest. This course provides a philosophical, historical, technological and social overview of the broadcast industry and its progeny. It focuses on broadcast economics, audience analysis, management, programming, media effects, government policy and FCC regulation in the public interest. Prerequisite: C- or better in COM 100.

COM 236. DEVELOPMENT AND INFLUENCE OF CINEMA 4 sh
The cinema has a rich history as an art form, entertainment medium and business enterprise. This course explores the social influence of cinema, both American and international. Students also study contemporary trends and business models in the film industry. Prerequisite: C- or better in COM 100.

COM 262. INTERPERSONAL COMMUNICATION 2 sh
Interpersonal relationships can be enhanced through the acquisition and development of communication skills. Topics include self-concept, perception, conversation skills and conflict resolution.

COM 265. SMALL-GROUP COMMUNICATION 2 sh
The effectiveness of small-group communication can be enhanced through the acquisition and development of skills related to committee, team and work-group processes.
COM 266. **THE FELLOWS EXPERIENCE**  4 sh
This course for Communications Fellows provides students a domestic travel experience that offers an inside look at the media and entertainment industries. Prerequisites: Communications Fellows only, application process required.

COM 286. **COMMUNICATIONS ACTING COMPANY**  1 sh
Performing arts students may earn credit for working as actors for shorts or scenes in cinema and broadcast courses. Prerequisites: THE 115, 120 or 125, an audition and permission of course instructor. May be repeated up to four times.

COM 300. **PERSUASION**  4 sh
This course explores the factors and techniques that either reinforce or change one's knowledge, attitudes and behaviors as applied to media and communication messages. Students study classical and contemporary strategies, identify accepted rules that guide the decision-making process, and review how source, receiver, situation and message characteristics impact the social influence process. Prerequisite: C- or better in COM 110.

COM 310. **REPORTING FOR THE PUBLIC GOOD**  4 sh
Students become reporters and writers who emphasize accuracy, logic, and the sound and sense of words. Students analyze good journalism and discuss concepts such as civic journalism, the watchdog function of the news media, ethical practice, and journalism's role in serving the public good in a democracy. Prerequisite: C- or better in COM 110.

COM 311. **BROADCAST NEWS WRITING**  4 sh
Students become broadcast reporters and writers for the ear by producing a variety of radio news stories. They analyze good broadcast journalism, audience research, media effects research, ethical standards and industry trends. Prerequisite: C- or better in COM 110.

COM 312. **STRATEGIC WRITING**  4 sh
This course emphasizes the importance of writing in public relations, advertising and media relations. Informative and persuasive methods include news releases, backgrounders, speech writing, employee publications, annual reports, news conferences, multimedia, public service announcements and oral presentations to a variety of audiences. Prerequisite: C- or better in COM 110.

COM 314. **WRITING FOR BROADCAST AND NEW MEDIA**  4 sh
Writing for radio, television and new media has its own style, form and content approaches. The course focuses on writing news, commercials, public service announcements and other copy for the ear. Students discuss contemporary issues, audience research, media effects research, ethical standards and industry trends. Prerequisite: C- or better in COM 110.

COM 316. **SCREENWRITING**  4 sh
As the heart and soul of cinema, screenwriting requires mastery of story, structure and format. This course helps students harness their imaginations in scripts for cinematic movies, series and shorts. Prerequisite: C- or better in COM 110.

COM 320. **EDITING AND DESIGN**  4 sh
Precision in word usage and style and an aesthetic sense of design are valuable in publications. Students practice crafting content, editing copy, writing headlines, using photos and graphics, writing captions and designing pages. Prerequisite: COM 220.

COM 322. **CORPORATE PUBLISHING**  4 sh
Print and web media (publications, public relations, advertising and the Internet) are used to communicate with internal and external publics. This course emphasizes effective visual design and publishing for corporate purposes. Prerequisite: COM 220.

COM 323. **CORPORATE VIDEO**  4 sh
Businesses often use video to communicate with internal and external publics. This course emphasizes achieving an organization's goals through informing, persuading and entertaining. Students focus on research, writing, and studio and remote video production. Prerequisite: COM 220.
COM 324.  TELEVISION PRODUCTION  4 sh
Students explore the principles and techniques in television broadcasting and other video
media. Studio and field assignments emphasize the aesthetics of television production and
the centrality of effective audio. Students research, write and produce news, public service
announcements, commercials and entertainment programming. Prerequisite: COM 220.

COM 326.  CINEMA PRODUCTION  4 sh
This course focuses on digital cinema picture and sound production, highlighting the
relationship between technology and artistic form in documentary and narrative produc-
tion. Students explore cinematic principles and techniques, learn production positions and
procedures, and produce a short cinematic work. Prerequisite: COM 220.

COM 328.  PHOTOJOURNALISM  4 sh
Photojournalism is the visual reporting of news. Students produce digital photojournalism
by translating ideas and newsworthy information into visual form. The course emphasizes
composition, lighting, storytelling and editing, along with the history of photojournalism
and its legal and ethical frameworks. Prerequisite: COM 220.

COM 330.  INTERNATIONAL COMMUNICATIONS  4 sh
Media systems differ substantially in the Americas, Europe, Asia, Africa and the rest of
the world. In this course, students examine the media systems of many countries, stressing
the chief problems of communications across cultural, economic, sociological and political
barriers.

COM 331.  ENVIRONMENTAL COMMUNICATIONS  4 sh
The environment is central to our future. Students develop an understanding of environ-
mental issues and communication practices to promote public awareness, change behavior
and influence public policy. The class analyzes media coverage of sustainability topics and
methods for informing, educating and influencing important target audiences.

COM 332.  ORGANIZATIONAL COMMUNICATIONS  4 sh
Every organization has its own internal communication patterns and leadership practices.
This course addresses the theories and workplace issues related to leadership, teams, inter-
personal relations, and organizational culture and strategy. Students analyze leadership and
ethical dimensions of communication in organizations.

COM 333.  RELIGION AND MEDIA  4 sh
Religion and media are two powerful influences in society. This course analyzes how they
intersect through media coverage of religious issues and themes, religion’s use of television
and the Internet, and media portrayals of religious people and traditions.

COM 334.  POLITICS AND MEDIA  4 sh
The media have a tremendous effect on the American political system in terms of news
coverage, candidate visibility, political messages and the creation of public opinion. This
course traces the evolution of media impact to the present day.

COM 335.  SPORTS AND MEDIA  4 sh
A symbiotic relationship exists between athletic competition and the media. This course
traces the century-old expansion of media coverage of athletics as well as social science
research, weighing the capability of the media to participate in shaping and packaging
sports content and programming as forms of popular culture.

COM 336.  INTERNATIONAL CINEMA  4 sh
Around the world, cinema is a reflection of societies, cultures and the times. This course
surveys the development and evolution of selected international cinemas and movements
and examines the social, cultural, economic and historic forces that influence, or are influ-
enced by, that evolution.

COM 338.  ADVERTISING IN SOCIETY  4 sh
Advertising is a creative communications process between messenger and consumer. This
course studies the research foundation and methods used in creating advertising for print,
broadcast and online media. Topics include history, ethics, social dynamics, economic implications for society and the global spread of advertising.

COM 340. FEATURE WRITING 4 sh
Students study writing styles and write feature articles for potential publication. The course applies techniques such as narrative, characterization, dialogue and scenes to nonfiction writing. Prerequisite: COM 110.

COM 342. SPORTS INFORMATION 4 sh
This course focuses on the writing and organizational skills essential for journalistic and public relations functions related to collegiate, professional and Olympic sports coverage. The functions of sports information tend to be closely related to media coverage and also can include effective operations of sporting events. Prerequisite: COM 110 or BUS 202.

COM 345. SPORTS BROADCASTING 4 sh
Students learn the structure, strategies and techniques of sports broadcasting, which serves the dual role as journalism and as entertainment. The course considers different content and styles of radio and television sportscasting. Assignments include broadcast coverage of athletic events and subsequent critique. Prerequisite: COM 220.

COM 348. BROADCAST PRESENTATION 4 sh
This course emphasizes effective presentation of ideas and information on radio, television and online. Students focus on vocal and visual presentation, voice and diction, pronunciation, appearance, gestures and movement. Prerequisite: COM 220.

COM 350. WEB PUBLISHING 4 sh
Students analyze the effective use of the Internet as a publication tool, the importance of web design, and the Internet’s impact on society. Students experiment with diverse ways of using media such as text, graphics, sound and video to effectively transmit information and data and to interact with users. Prerequisite: COM 220.

COM 351. TELEVISION NEWS REPORTING 4 sh
Students research, write, edit and produce television news packages and newscasts as well as analyze current examples of news and public affairs programming. They work as producers, reporters, anchors, editors, videographers and studio production crew for news, sports and information segments in a newscast. Prerequisites: COM 311 and 324.

COM 354. AUDIO FOR VISUAL MEDIA 4 sh
Sound is an important element in television, cinema and other visual media. This course analyzes digital audio production concepts and techniques such as on-location recording, post-production, editing sound with pictures, synchronization, automated dialogue replacement, signal processing, and the use of sound effects and music. Prerequisite: COM 220.

COM 355. THE DOCUMENTARY 4 sh
Students trace the origins of the documentary and analyze its status today, ranging from news documentaries to nature and travel productions to major artistic documentaries. Students produce projects outside of class. Prerequisite: COM 220.

COM 356. CINEMA AESTHETICS 4 sh
Aesthetics refers to the creative use of camera angles, motion, lighting, color, sounds, music, special effects and editing for cinematic impact. This course examines theories of shooting and editing. Students apply these concepts to the production of individual short narrative films. Prerequisite: COM 324 or 326.

COM 360. INTERACTIVE MEDIA 4 sh
Students analyze the history and structure of interactive and newer media forms and explore their potential uses. This course experiments with interactive presentations and emerging media, using a media theory framework and models drawn from the fields of cognition and graphic design. Prerequisite: COM 220.
COM 361. MEDIA MANAGEMENT AND SALES 4 sh
For media to thrive, they need good management and a steady revenue stream. This course explores the principles of management and sales for print, broadcast and online media. Topics include ownership and regulation, organizational structure, personnel, business models and clients, and how to sell time and space.

COM 362. COMMUNICATION RESEARCH 4 sh
Students learn both theoretical and methodological concepts for conducting applied research in communications. This course explores public opinion polling, marketing research and qualitative methods, and highlights surveys, content analysis, focus groups and audience analysis.

COM 364. AUDIO FOR SOUND MEDIA 4 sh
Students learn digital audio production concepts and techniques applicable to radio and music recording. Emphasis is given to studio recording techniques such as the nature of sound and acoustics, signal flow, file formats, miking, multi-channel recording and mixing, nonlinear editing, signal processing and mastering. Prerequisite: COM 220.

COM 365. EDITING THE MOVING IMAGE 4 sh
Students learn the concepts and techniques of digital video editing for broadcast and cinema. The course examines the historical and theoretical evolution of editing, and students complete projects that require mastery of video editing techniques. Prerequisite: COM 220.

COM 366. NARRATIVE DIRECTING 4 sh
The director’s vision shapes almost every aspect of a story’s transformation from page to stage and from stage to screen. Students work with scripts, actors, camera and editing as they practice the art and craft of directing. Prerequisites: COM 316 and 326.

COM 368. MAGAZINE PUBLISHING 4 sh
This course examines the magazine publishing industry from its origins to today. Students explore industry trends toward specialization and magazine publishing processes including concept, planning, writing, editing, advertising, production, promotion and distribution of a finished product.

COM 370-79. SPECIAL TOPICS IN COMMUNICATIONS 1-4 sh
The School of Communications periodically offers special topics courses. Prerequisite: Determined by instructor.

COM 380. MEDIA WORKSHOP 1 sh
An on-campus practicum with student media, featuring weekly instruction from a faculty advisor. Prerequisite: Approval of department chair. Maximum of four credit hours applied toward major.

COM 381. COMMUNICATIONS INTERNSHIP 1 or 2 sh
An off-campus, professionally supervised internship in journalism, strategic communications, media arts and entertainment, or communication science. Students secure an internship with guidance from the school’s internship office and enroll for one or two credit hours, based on at least 80 work-hours per credit hour. An internship involves creation of a student portfolio, reflection assignments and supervisor evaluations. Prerequisite: Approval of school’s internship director. Maximum of four credit hours applied toward major.

COM 382. COMMUNICATIONS STUDY ABROAD 1-4 sh
Students who study abroad may earn credit for specialized study on a communications topic.

COM 400. MEDIA LAW AND ETHICS 4 sh
The First Amendment is the philosophical foundation for freedom of speech and press in America. This course distinguishes between forms of communication that have constitutional protection and those with limitations (libel, privacy, copyright, censorship, commer-
cial speech, broadcast licensing, access to information). Students explore the foundations of moral reasoning and apply ethical responsibilities to communications cases.

**COM 406. FILM THEORY, GENRES AND AUTEURS**  
This course surveys classical and contemporary film theory and critical approaches to the study of film including formalism, realism and expressionism. Students explore film genres (drama, suspense, comedy), auteur directors (those whose vision dominates great movies), and the social, cultural, economic and historic forces at play.

**COM 420. DESIGN AND INFORMATION GRAPHICS**  
Students focus on effective design, information graphics and photo editing for news and feature outlets. The course analyzes use of type, images and color, and students apply that knowledge to design projects. Prerequisite: COM 320 or 322.

**COM 428. VISUAL STORYTELLING**  
Multimedia tools are used to produce online visual stories through photojournalism. This course emphasizes advanced photojournalistic technique and methods of evoking emotion. Each student develops a working portfolio. Prerequisite: COM 328.

**COM 438. ADVERTISING TECHNIQUES**  
Advertising has a creative side as well as a business side. This course focuses on writing advertising copy and merging it with graphic design elements to communicate messages both creatively and effectively. Emphasis is placed on concepts, strategies and presentation style. Prerequisite: COM 338.

**COM 440. PUBLIC AFFAIRS REPORTING**  
Journalism provides eyes and ears for the public at large. In this advanced reporting course, students concentrate on how best to cover politics, government, business and other social institutions. Students explore story topics, sources and pitfalls. Prerequisite: COM 310.

**COM 450. MULTIMEDIA JOURNALISM**  
Students gather and present news and information in a converged media environment that combines text, graphics, photojournalism, audio and video. Students work as individuals and in teams to write, report and produce online multimedia products. This culminating course in the journalism major also explores career opportunities. Prerequisite: COM 350 or 351.

**COM 452. STRATEGIC CAMPAIGNS**  
Students apply strategies and techniques to create a communications campaign for real clients. In the process, students engage in audience analysis, budget preparation and development of a strategic plan for corporate, nonprofit, association and/or government clients. This culminating course in the strategic communications major also explores career opportunities. Prerequisites: COM 312 and 362.

**COM 454. PRODUCING FOR BROADCAST AND NEW MEDIA**  
To attract target audiences, those in broadcast and new media must place importance on program development, message design, production aesthetics and distribution channels. Students produce substantive team or individual projects based on programming strategies and client needs. This culminating course for broadcast and new media students also explores career opportunities. Prerequisites: COM 314 and 324.

**COM 455. PRODUCING THE DOCUMENTARY**  
This course emphasizes the power of the documentary and its potential to address issues of social significance. Students examine the world of the documentary from initial concept to financing to distribution and produce a substantive documentary. This culminating course for documentary students also explores career opportunities. Prerequisite: COM 355 or 356.

**COM 456. PRODUCING NARRATIVE CINEMA**  
This course examines production management and the business of cinema, focusing on the role of the producer. Students work as screenwriters, directors, cinematographers, editors
and in other production roles to create a substantive narrative work. This culminating course for narrative cinema students also explores career opportunities. Prerequisite: COM 355 or 356.

**COM 460. COMMUNICATION INQUIRY**

Using a social science perspective, students analyze the role of media and professional communication in society. They pursue important questions, apply theories and observation, cite credible sources and write a significant paper that reflects the scientific method. This culminating course in the communication science major also explores career opportunities. Prerequisite: COM 362.

**COM 491. INDEPENDENT STUDY**

Students engage in an academic project outside the domain of existing courses, closely guided by a faculty mentor in the School of Communications. Many students enroll for one or two credit hours; enrollment for three or four credit hours must represent the equivalent of a full and rigorous course. A project proposal form completed by the student and faculty mentor is required for registration. Prerequisite: Approval of department chair. Maximum of four credit hours applied toward major.

**COM 495. GREAT IDEAS: CAPSTONE IN COMMUNICATIONS**

Students examine the importance of free expression in a democracy and other great ideas that shape the disciplines of communications. These include trends such as media convergence, the global reach of communications and the impact of new technologies. Students do an original research project with a paper, or a substantial analytical paper that examines an important idea in communications. The course is the school’s primary instrument for senior assessment. Prerequisite: Senior status. Students must pass this course with a grade of C- or better.

**COM 499. RESEARCH AND CREATIVE ACTIVITY**

Students engage in original research or creative activity, closely guided by a faculty mentor in the School of Communications. Many students enroll for one or two credit hours; enrollment for three or four credit hours must represent the equivalent of a full and rigorous course. A research proposal form completed by the student and faculty mentor is required for registration. Prerequisite: Approval of department chair. Maximum of four credit hours applied toward major.

### Communication Science

Communication Science explores how people use messages to inform, persuade and entertain. Students apply social science theory and research to contemporary issues in media and professional communications.

(See *Communications* for additional program requirements and course descriptions)

**A major in Communication Science requires the following courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GST 115</td>
<td>Public Speaking</td>
<td>2 sh</td>
</tr>
<tr>
<td>COM 100</td>
<td>Communications in a Global Age</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 110</td>
<td>Media Writing</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 220</td>
<td>Digital Media Convergence</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 225</td>
<td>The Process of Communication</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 230</td>
<td>Media History, Media Today</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 300</td>
<td>Persuasion</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 362</td>
<td>Communication Research</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 381</td>
<td>Communications Internship</td>
<td>1 or 2 sh</td>
</tr>
</tbody>
</table>
COM 400 Media Law and Ethics 4 sh
COM 460 Communication Inquiry 4 sh
COM 495 Great Ideas: Capstone in Communications 2 sh
Choice of additional courses to total at least 52 COM hours

Communications Total 52 sh

OVERALL TOTAL 54 sh

Computing Sciences

Chair: Senior Lecturer Hollingsworth
Professor: Powell
Associate Professors: Duvall, Heinrichs, Squire, B. Taylor, Yap
Assistant Professor: Ajjan, Hutchings
Senior Lecturers: Kleckner
Adjuncts: Allen, Bryan

The Department of Computing Sciences at Elon University offers Bachelor of Arts and Bachelor of Science degrees in Computer Science, B.S. degrees in Information Science, and minors in Computer Science and Information Science. Minors in Multimedia Authoring and Geographical Information Systems are also available.

Computer Science has changed and continually changes the way we live, work, play and learn. The discipline is constantly changing; the student must be able to communicate well and learn new concepts throughout life. The computer sciences program at Elon prides itself on staying at the forefront of the discipline. The program is rigorous emphasizing problem solving and software development using state of the art concepts, software languages, software tools, algorithms and best practices. Students study programming languages, mobile computing, cloud computing, web programming, algorithm analysis, design patterns, artificial intelligence, game programming, and high performance computing. Elon Computer Science graduates are presently working as application programmers, mobile application developers, web developers, system analysts, software engineers, software project managers and consultants.

The information science discipline centers on using technology to solve a wide-range of complex problems that involve capturing, analyzing, visualizing, and managing large sets of data. Everyday more than 15 petabytes (15 quadrillion bytes) of data are generated around the world. Information scientists are concerned with creating intelligence from the data that can be used to solve complex problems like mapping the shrinking polar ice sheets, tracking the spread of infectious disease, understanding customer buying patterns, and helping people manage their health. The information science program at Elon teaches students to apply state-of-the-art tools and techniques for transforming a barrage of data to consistent, trusted, and relevant information that can provide insight and support decision making. The hands-on program provides a solid foundation in programming, data, interface design, and statistics. Because of its interdisciplinary nature, information science complements a variety of majors and minors.

Computing sciences students at Elon have excellent access to both faculty and equipment including a wide array of computer hardware and software. The latest versions of more than 50 software development tools are updated twice annually. Every computer is replaced every three years. Opportunities for various work and independent learning experiences that complement classroom learning are available. Other opportunities for involvement
include the student chapter of the Association for Computing Machinery (ACM), participation in regional and local programming contests, and independent study and research. Graduates pursue employment in many areas of industry, business, education and government, as well as continuing study at the graduate levels.

*A Bachelor of Arts degree in Computer Science requires the following courses:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 130</td>
<td>Computer Science I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 230</td>
<td>Computer Science II</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 330</td>
<td>Computer Science III</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 331</td>
<td>Algorithm Analysis</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 335</td>
<td>Programming Languages</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 342</td>
<td>Computer Systems</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 442</td>
<td>Mobile Computing</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 462</td>
<td>Software Development/Capstone</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 206</td>
<td>Discrete Structures</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 221</td>
<td>Calculus II</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 306</td>
<td>Applied Matrix Theory</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course beyond core math requirement

- Probability/Statistics: If core math requirement was MTH 121, then
- MTH 112 General Statistics or a probability and/or statistics course
- Quantitative Analysis: If core math requirement was MTH 112, then
- MTH 121 Calculus I

Choose two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 410</td>
<td>Artificial Intelligence</td>
<td>8 sh</td>
</tr>
<tr>
<td>CSC 415</td>
<td>Numerical Analysis</td>
<td></td>
</tr>
<tr>
<td>CSC 420</td>
<td>Game Programming and Computer Graphics</td>
<td></td>
</tr>
<tr>
<td>CSC 430</td>
<td>Advanced Programming Concepts</td>
<td></td>
</tr>
<tr>
<td>CSC 431</td>
<td>High Performance Computing</td>
<td></td>
</tr>
<tr>
<td>CSC 499</td>
<td>Research</td>
<td></td>
</tr>
<tr>
<td>CSC 300-400 level elective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** 52 sh

*A Bachelor of Science degree in Computer Science requires the following courses:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 130</td>
<td>Computer Science I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 230</td>
<td>Computer Science II</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 330</td>
<td>Computer Science III</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 331</td>
<td>Algorithm Analysis</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 335</td>
<td>Programming Languages</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 342</td>
<td>Computer Systems</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 442</td>
<td>Mobile Computing</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
CSC 462 Software Development/Capstone 4 sh
MTH 206 Discrete Structures

Choose one course from the following: 4 sh
  MTH 221 Calculus II
  MTH 306 Applied Matrix Theory

Select one course beyond core math requirement 4 sh
  Probability/Statistics: If core math requirement was MTH 121, then
  MTH 112 General Statistics or a probability and/or statistics course
  or
  Quantitative Analysis: If core math requirement was MTH 112, then
  MTH 121 Calculus I

Choose three courses from the following: 12 sh
  CSC 410 Artificial Intelligence
  CSC 415 Numerical Analysis
  CSC 420 Game Programming and Computer Graphics
  CSC 430 Advanced Programming Concepts
  CSC 431 High Performance Computing
  CSC 499 Research
  CSC 300-400 level elective

Choose one sequence from the following: 8 sh
  CHM 111, 112
  PHY 221, 222
  BIO 111, 112, 113, 114

TOTAL 64 sh

A Bachelor of Science degree in Information Science requires the following courses:

ISC 111 Data Science and Visualization 4 sh
CSC 130 Computer Science I 4 sh
ISC 245 Fundamentals of Data 4 sh
ISC 301 Database Management and Analysis 4 sh
ISC 310 Human-Computer Interaction 4 sh
ISC 320 Data Mining and Analytics 4 sh
ISC 325 Data-Driven Web Development 4 sh
ISC 345 Information Security 4 sh
ISC 430 Senior ISC Experience 4 sh
MTH 206 Discrete Structures 4 sh
STS 212 Statistics in Application 4 sh
STS 327 Statistical Computing 4 sh

Elective chosen from any 300/400 level courses in ISC or CSC 230 4 sh

TOTAL 52 sh
A minor in Computer Science requires the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 130</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>CSC 230</td>
<td>Computer Science II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Eight semester hours of 300-400 level CSC courses</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>One additional course from CSC or ISC at the 200 level or above</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

A minor in Information Science requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISC 245</td>
<td>Fundamentals of Data</td>
<td>4</td>
</tr>
<tr>
<td>CIS 301</td>
<td>Database Management and Analysis</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Application Development:</td>
<td></td>
</tr>
<tr>
<td>CSC 130</td>
<td>Computer Science I</td>
<td></td>
</tr>
<tr>
<td>ISC 310</td>
<td>Human-Computer Interaction</td>
<td></td>
</tr>
<tr>
<td>ISC 325</td>
<td>Data-Driven Web Development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data Management:</td>
<td></td>
</tr>
<tr>
<td>ISC 111</td>
<td>Data Science and Visualization</td>
<td></td>
</tr>
<tr>
<td>ISC 320</td>
<td>Data Mining and Analytics</td>
<td></td>
</tr>
<tr>
<td>ISC 345</td>
<td>Information Security</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Bachelor of Arts degree in Computer Science/Engineering: See requirements listed under Engineering.

Multimedia Authoring minor: See Multimedia Authoring

Geographic Information Systems minor: See Geographic Information Systems

Computer Information Systems

The majors and minor programs in Computer Information Systems have been transitioned to majors and minors in the rapidly growing field of Information Science. For students graduating in academic year 2011-2012, CIS 330 will be offered one last time in the fall semester. Students graduating in later years should see their advisor to transition to Information Science.

CIS 211. MANAGEMENT INFORMATION SYSTEMS 4 sh

This course provides an introduction to the fundamentals of information systems (IS) in organizations. The course examines the role of computers, databases, networking and application software in managing the business organization and examines their integration with other functions such as production, marketing and finance. The fundamentals of business-process modeling are explored using process flow diagrams. Basic database management is presented to understand the design of tools for organization, manipulation and retrieval of data. The ethical, strategic and global aspects of information systems are explored. No prerequisite. Offered fall and spring.

CIS 220. TECHNOLOGY IN TEACHING AND LEARNING 3 sh

This course is designed for students who are planning to teach at the elementary, middle or secondary level and provides an introduction to the role of technology in teaching and learning in K-12 schools. The course provides opportunities for students to develop basic skills in using technology and in selecting and applying technology appropriately to
enhance teacher productivity and student learning. Prerequisite: EDU 211 or SOC 243.
Offered fall and spring.

CIS 330. SYSTEMS ANALYSIS AND DESIGN 4 sh
This in-depth study of standard techniques for analyzing and designing information systems (IS) emphasizes effective written and oral communication as students examine a system using a realistic business scenario. Appropriate CASE tools (Visible Analyst and/or Visio) are used during the analysis phase. Visual Basic, Crystal Reports and Access are used during the implementation phase to create a simulated software application. Prerequisite: CIS 301. This course is being discontinued. The last offering will be in fall 2011.

Computer Science

CSC 111. DATA SCIENCE AND VISUALIZATION 4 sh
The Internet is full of rich data sources that anyone can use to answer questions and solve problems. How can we process this data to uncover interesting patterns? This course teaches students how to access online data, write programs to analyze the data, and use visualization tools to describe the patterns we find in a compelling way. Students of any major are welcome. No prerequisites. Offered fall and spring.

CSC 130. COMPUTER SCIENCE I 4 sh
This introduction to programming and problem solving emphasizes applications from quantitative disciplines and incorporates in class programming experiences. Offered fall and spring.

CSC 171. SPECIAL TOPICS 1-4 sh
Students study specialized pieces of software and programming languages. Prerequisite: CSC 130.

CSC 230. COMPUTER SCIENCE II 4 sh
This course continues the study of object-oriented programming with an emphasis on graphical user interfaces, event handling, inheritance, polymorphism, basic data structures, software engineering, recursion and the social context of computing. Prerequisite: CSC 130. Offered fall and spring.

CSC 330. COMPUTER SCIENCE III 4 sh
This course introduces concepts and methodologies to design and implement a distributed, multi-tier application. Students will cover advanced Java features and look at advanced graphical user interface topics, multithreading, networking, Java database connectivity and web applications. Prerequisite: CSC 230. Corequisite: MTH 206. Offered fall.

CSC 331. ALGORITHM ANALYSIS 4 sh
Students analyze structures and appropriate algorithms to determine the amount of resources necessary to execute the algorithm. Students will explore algorithmic approaches for problem solving and theoretical techniques for arguing efficiency. Prerequisites: CSC 230, MTH 206. Offered spring.

CSC 335. PROGRAMMING LANGUAGES 4 sh
This course provides an introduction to the theory and practice of formal languages. The topics of automata theory, grammar formalisms and Turing machines provide the theoretical foundation for practical issues such as data typing, control structures and parameter passing. Programming assignments involve the use of several languages. Prerequisites: CSC 230, MTH 206. Offered spring.

CSC 342. COMPUTER SYSTEMS 4 sh
This course involves the study of the basic building blocks of modern computer systems. Topics include digital logic, machine-level representation of data, assembly-level organization, operating system primitives and concurrency. Prerequisite: CSC 230. Corequisite: MTH 206. Offered fall.
CSC 351.  **THEORY OF COMPUTATION**  
4 sh
In this introduction to theoretical computer science and analysis of discrete mathematical 
structures that find application in computer science, topics may include predicate calculus, 
groups, coding theory, graphs, trees, formal languages, grammars, finite state automata, 
Turing machines and complexity theory. Cross-listed with MTH 351. Prerequisites: CSC 
130, MTH 121, 206. Corequisite: CSC 230. Offered when demand is sufficient.

CSC 371.  **SPECIAL TOPICS**  
1-4 sh
Topics such as genetic programming, grid computing, decision analysis, design of database 
management systems, robotics, simulation and high-performance computing are offered 
when demand is sufficient.

CSC 410.  **ARTIFICIAL INTELLIGENCE**  
4 sh
This course is an introduction to the area of artificial intelligence systems. Students will 
learn concepts of knowledge representation, reasoning, acting under uncertainty and learning. Applications studied will include game playing, natural language and expert systems. 
Prerequisite: CSC 331. Offered fall of alternating years.

CSC 415.  **NUMERICAL ANALYSIS**  
4 sh
See MTH 415

CSC 420.  **GAME PROGRAMMING AND COMPUTER GRAPHICS**  
4 sh
A study of two major areas of programming video games: graphics and gaming. Students 
will learn the fundamentals of two- and three-dimensional graphic programming, including 
object transformations, ray tracing, collision detection and animation, as well as the 
components of gaming, including intelligent game playing, types of games and creating engaging storylines. Prerequisite: CSC 230. Offered fall of alternating years.

CSC 430.  **ADVANCED PROGRAMMING CONCEPTS**  
4 sh
This course will focus on advanced programming concepts beyond the core computer 
science material. The material in the course continually evolves guided by the needs of 
students, the expertise of faculty members and technology trends. Currently, the course 
focuses on developing enterprise level, multi-tier distributed applications. The course 
exploring the major technologies used by server side applications. Using a commercial application server, students will design and implement a significant programming project using the Java Enterprise Edition. Prerequisite: CSC 330. Offered spring of alternating years.

CSC 431.  **HIGH PERFORMANCE COMPUTING**  
4 sh
This course gives an introduction to high performance computing and its applications 
within science and engineering. The main emphasis of the course is on techniques and tools for efficiently solving large and computationally intensive problems on parallel computers. Prerequisites: CSC 331, 342. Offered spring of alternating years.

CSC 442.  **MOBILE COMPUTING**  
4 sh
This course introduces the emerging field of mobile and wireless computing. This course 
will cover a range of topics including wireless networking, location-aware computing, 
ad-hoc networks and the development of software for mobile devices. Prerequisites: CSC 
330, 342. Offered spring.

CSC 462.  **SOFTWARE DEVELOPMENT/CAPSTONE**  
4 sh
This capstone course combines a range of topics integral to the specification, design, implementa-
tion and testing of a medium-scale software system. In addition to material on software 
engineering, the course includes material on human computer interaction and on professionalism and ethical responsibilities in software development. Prerequisites: CSC 
330, 335. Offered fall.

CSC 481.  **INTERNSHIP IN COMPUTER SCIENCE**  
1-4 sh
Advanced work experiences in computer science are offered on an individual basis when suitable opportunities can be arranged. Prerequisite: Permission of instructor.
CSC 491. INDEPENDENT STUDY 1-4 sh
CSC 499. RESEARCH 1-4 sh

Students engage in undergraduate research under the direction of a computing sciences faculty member. Maximum of eight semester hours total credit. Prerequisites: Eligibility as determined by the undergraduate research guidelines of Elon University and approval by the department.

Information Science

ISC 111. DATA SCIENCE AND VISUALIZATION 4 sh
See CSC 111. Offered fall and spring.

ISC 245. FUNDAMENTALS OF DATA 4 sh
An introduction to the storage, organization and management of data resources. Topics include data representation, data formats, data files, data storage and data integrity. Prerequisite: CSC/ISC 111 or CSC 130 or Permission of instructor. Offered fall.

ISC 301. FUNDAMENTALS OF DATABASE MANAGEMENT AND ANALYSIS 4 sh
This course focuses on designing, implementing and using database systems, with emphasis on relational and object-relational models. Students design and deploy relational database models using commercial database management tools. Students will learn SQL and will be able to design complex reports and queries to answer domain problems. Prerequisites: CSC/ISC 111 or CSC 130, ISC 245. Offered spring.

ISC 310. HUMAN-COMPUTER INTERACTION 4 sh
Students learn standard tools and methodologies to build usable systems, software and other interactive experiences. This course emphasizes understanding end-user abilities and limitations, important tasks and task properties, other aspects of requirements gathering, design principles (especially for visual interfaces), usability evaluation, and emerging trends in human-computer interaction. Prerequisite: CSC/ISC 111 or CSC 130 or Permission of instructor. Offered spring.

ISC 320. DATA MINING AND ANALYTICS 4 sh
This course provides an introduction to the concepts of data analysis and data mining using descriptive statistics, SQL and data visualization techniques. Students will be introduced to the many steps in the data mining process including: collection, cleaning and aggregation, transformation, mining, evaluation, presentation. Prerequisites: ISC 301, MTH 212. Offered fall.

ISC 325. DATA-DRIVEN WEB DEVELOPMENT 4 sh
This course provides a complete overview of the website development process. Students will create complex, interactive, data-driven websites using client and server-side technologies to manage display, processing and storage of data. Prerequisites: ISC 301, CSC 130. Offered fall.

ISC 345. INFORMATION SECURITY 4 sh
This course focuses on how organizations ensure the confidentiality, integrity and availability of information by addressing technical security issues, people security issues, policy issues, privacy and ethics. Prerequisites: ISC 245, MTH 206. Offered spring.

ISC 430. SENIOR ISC EXPERIENCE 4 sh
This integrative experience centers around a semester-long project in which students will be evaluated on dimensions of data design, usability and security. Key elements of project management will be included early in the course, giving the opportunity for students to implement project management best practices in conducting their project work. Prerequisites: Senior standing or permission of instructor. Offered spring 2012 and then fall only starting in fall 2012.
ISC 481. INTERNSHIP IN INFORMATION SCIENCE 1-4 sh
Advanced work experiences in information science are offered on an individual basis when suitable opportunities can be arranged. Prerequisite: Permission of instructor.

ISC 491. INDEPENDENT STUDY 1-4 sh
Students engage in undergraduate research under the direction of a computing sciences faculty member. Maximum of eight semester hours total credit. Prerequisites: Eligibility as determined by the undergraduate research guidelines of Elon University and approval by the department.

ISC 499. RESEARCH 1-4 sh

Cooperative Education
Chair and Director of Experiential Education: Assistant Professor P. Brumbaugh
Assistant Professors: Donathan, Kosusko, Martin, Olive-Taylor

The Career Center offers courses designed to acquaint Elon students with the career decision-making process, to assist them in career exploration and prepare them for the job search.

COE 110. EXPLORING CAREERS/MAJORS 1 sh
This class assists students in exploring majors and careers. Topics include personal values and needs assessment, interest and skill inventories, and career decision-making skills. Recommended for freshmen and sophomores. Offered fall and spring in a half-semester format.

COE 310/375. TRANSITION STRATEGIES 1 sh
These courses help students prepare for internships, co-ops, summer jobs and permanent employment. Students develop strategies to achieve career goals, investigate critical issues in the workplace, develop a resume and a cover letter and learn how to network and interview effectively. Recommended for sophomores, juniors and seniors.

COE 381-386. CO-OP WORK EXPERIENCE 1-16 sh
This series of courses involves careful monitoring of students in either a part-time or full-time work experience. Students apply classroom theory in a job related to their major/ minor/career objectives. Prerequisite: admission to the program.

The Cooperative Education Work Experience program enables qualified students to combine classroom theory with professional work experience while completing their degrees. The student may work full time or part time with an employer selected and/or approved by the university. Credit hours are based on the number of hours worked during the term — a maximum of 16 semester hours of internship/cooperative education credits may be applied to the 132 semester hours required for the A.B. and B.S. degrees. Evaluation is based on reported job performance and student reflection on that performance through papers, journals, seminars, class presentations and readings. Contact the Director of Experiential Education for more information.

ELIGIBILITY REQUIREMENTS: Sophomore, junior or senior standing; minimum 2.0 GPA; approval of faculty/Experiential Education Director. COE 310 class recommended.

Criminal Justice Studies
Coordinator: Associate Professor McClearn

The Criminal Justice Studies program engages students in the interdisciplinary study of crime and criminal justice, primarily within the United States. Students gain an understanding of the psychological and sociological dimensions of crime as well as insights into
the workings of the criminal justice system and its components. Students examine both academic and applied aspects of the field. Ethical implications and critical analysis of issues are stressed.

The most common majors for students who minor in criminal justice studies are psychology, human services, sociology and political science. However, students have found that the criminal justice studies minor can serve as a valuable complement to a wide array of majors, including journalism, biology, business and philosophy.

Criminal justice students are encouraged to engage in experiences that move beyond the classroom, such as internships, research and independent study. Internships taken in applied settings, such as local law enforcement agencies, prisons, the court system, law offices and a medical examiner’s laboratory have proven exciting and educationally beneficial to criminal justice minors. In collaboration with relevant faculty, students have conducted research and independent study on a diverse array of topics, including punitiveness toward criminals, illicit drug use, police personality, psychopathology and crime, serial killers, and the relevance of thinking styles and personality traits to violent behavior.

Students are also encouraged to participate in the Crime Studies Club, a student organization involved in a host of activities related to crime and the criminal justice system. Members of the club have organized field trips to such places as forensics laboratories and prisons. Additionally, the club has hosted nationally prominent experts who have spoken on such topics as designer drugs, forensic science and the profiling of serial killers, as well as career opportunities in the realm of criminal justice.

Many criminal justice studies minors choose to continue their education after obtaining the bachelor’s degree from Elon. They have entered graduate programs in sociology, political science, social services, psychology, forensic science, criminal justice, law and others. Students who choose to enter a career upon graduation have found employment in law enforcement (at the local, state or federal level), prisons and social work.

A minor in Criminal Justice Studies requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 357</td>
<td>Criminal Behavior</td>
<td>4 sh</td>
</tr>
<tr>
<td>SOC 355</td>
<td>Criminology</td>
<td>4 sh</td>
</tr>
<tr>
<td>HSS 359</td>
<td>Criminal Justice</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Eight semester hours of electives selected from the following courses: 8 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJS 371-79</td>
<td>Special Topics in Criminal Justice</td>
</tr>
<tr>
<td>CJS 481</td>
<td>Internship in Criminal Justice</td>
</tr>
<tr>
<td>CJS 491</td>
<td>Independent Study</td>
</tr>
<tr>
<td>CJS 499</td>
<td>Research</td>
</tr>
<tr>
<td>PHL 341</td>
<td>Philosophy of Law</td>
</tr>
<tr>
<td>POL 324</td>
<td>Civil Liberties</td>
</tr>
<tr>
<td>SOC 342</td>
<td>Social Deviance</td>
</tr>
<tr>
<td>Other courses as approved by the program coordinator</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL 20 sh

**CJS 371-79. SPECIAL TOPICS IN CRIMINAL JUSTICE** 2-4 sh

A series of courses reflecting new contributions to the criminal justice field and in-depth treatments of topics of special interest, such as terrorism and organized crime. Prerequisites: Junior standing and at least one core course, or permission of the instructor. Courses may be cross-listed with other disciplines.
CJS 481.  **INTERNSHIP IN CRIMINAL JUSTICE**  
2-4 sh  
Students apply classroom knowledge to a law enforcement setting. Internships in a criminal justice setting taken from other disciplines might substitute for CJS 481; approval for any such substitutions must be obtained from program coordinator before registration. Prerequisites: Junior standing, at least one core course and approval of instructor and program coordinator.

CJS 491.  **INDEPENDENT STUDY**  
1-4 sh  
Advanced study on a topic of special interest. Prerequisites: Junior standing, at least one core course and approval of instructor and program coordinator.

CJS 499.  **RESEARCH**  
1-4 sh  
In collaboration with a faculty member, students undertake an empirical or theoretical study of a topic in the realm of criminal justice studies. Research projects may include a review of the relevant research literature, data collection and analysis, and a presentation or report when the study is completed. Prerequisites: Junior standing, at least one core course and approval of instructor and program coordinator. A research proposal form completed by the student in conjunction with the faculty member is required for registration.

**Dance**

Chair, Department of Performing Arts: Professor Rubeck
Professor: Wellford
Associate Professors: Formato, Kearns, Sabo
Assistant Professor: Aryeh, Bower
Adjuncts: Aumiller, Guy-Metcalf, Hutchins, Marone, Medler, Roberts, Tourek, N. Wheeler

The Department of Performing Arts offers a Bachelor of Fine Arts in Dance Performance and Choreography and a minor in Dance. The program gives students a 21st-century dance education with a focus on technical training, creative exploration, compositional skills, somatic knowledge, collaborative dance-making and multi-disciplinary performance. The dance program recognizes the importance of an individual’s interaction with the world as a whole person, not just as an artist. Dance artists and theorists are members of the global community and as such, students are encouraged to explore wide-ranging interests and to innovative ways to combine their in-depth dance studies with their experience as global citizens to further the field of contemporary dance. Students in the B.F.A. program are encouraged to study and intern abroad. An audition is required for the B.F.A. but not for the minor.

The B.F.A. is a 68 semester-hour degree that requires intensive study in technique, composition and theory. It is intended for the student who wishes to pursue graduate studies, professional performance or creative careers in dance.

The minor in dance is designed for the general dance enthusiast. Students may not declare a minor in dance until they complete DAN 101. Students must complete 20 semester hours including introductory theory and performance followed by upper level electives.

A major in Dance Performance and Choreography requires the following courses (Audition required):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 102</td>
<td>Somatic Theories I</td>
<td>4 sh</td>
</tr>
<tr>
<td>DAN 202</td>
<td>Somatic Theories II</td>
<td>4 sh</td>
</tr>
<tr>
<td>DAN 301</td>
<td>Dance History I</td>
<td>4 sh</td>
</tr>
<tr>
<td>DAN 302</td>
<td>Dance History II</td>
<td>4 sh</td>
</tr>
<tr>
<td>DAN 230</td>
<td>Dance Improvisation I</td>
<td>4 sh</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------</td>
<td>---------</td>
</tr>
<tr>
<td>DAN 231</td>
<td>Dance Choreography I</td>
<td>4 sh</td>
</tr>
<tr>
<td>DAN 331</td>
<td>Dance Choreography II</td>
<td>4 sh</td>
</tr>
<tr>
<td>DAN 495</td>
<td>Senior Seminar I</td>
<td>2 sh</td>
</tr>
<tr>
<td>DAN 496</td>
<td>Senior Seminar II</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

(a) Twelve semester hours selected from the following: 12 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 204</td>
<td>Modern III</td>
</tr>
<tr>
<td>DAN 214</td>
<td>Modern IV</td>
</tr>
<tr>
<td>DAN 304</td>
<td>Modern V</td>
</tr>
<tr>
<td>DAN 404</td>
<td>Modern VI</td>
</tr>
<tr>
<td>DAN 206</td>
<td>Ballet III</td>
</tr>
<tr>
<td>DAN 216</td>
<td>Ballet IV</td>
</tr>
<tr>
<td>DAN 306</td>
<td>Ballet V</td>
</tr>
<tr>
<td>DAN 406</td>
<td>Ballet VI</td>
</tr>
</tbody>
</table>

Students may repeat each technique class once and must reach level V in one genre and level VI in the other.

(b) Four semester hours selected from the following: 4 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 107</td>
<td>Jazz I</td>
</tr>
<tr>
<td>DAN 207</td>
<td>Jazz II</td>
</tr>
<tr>
<td>DAN 307</td>
<td>Jazz III</td>
</tr>
<tr>
<td>DAN 407</td>
<td>Jazz IV</td>
</tr>
<tr>
<td>DAN 105</td>
<td>Tap I</td>
</tr>
<tr>
<td>DAN 205</td>
<td>Tap II</td>
</tr>
<tr>
<td>DAN 305</td>
<td>Tap III</td>
</tr>
<tr>
<td>DAN 108</td>
<td>World Dance I (2 sh)</td>
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</table>

(c) Sixteen semester hours of dance electives 16 sh
(at least 4 semester hours at the 300-400 level)

(d) Four semester hours selected from the following: 4 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 223</td>
<td>Dance Ensemble</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 101</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td></td>
<td>(This must be completed before a minor can be declared.)</td>
</tr>
<tr>
<td>DAN 104</td>
<td>Modern I</td>
</tr>
<tr>
<td>DAN 114</td>
<td>Modern II</td>
</tr>
<tr>
<td>DAN 106</td>
<td>Ballet I</td>
</tr>
<tr>
<td>DAN 116</td>
<td>Ballet II</td>
</tr>
</tbody>
</table>

Choose one course from: 4 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 301</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 302</td>
<td>Dance History II</td>
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</tbody>
</table>

Eight semester hours of dance electives with a minimum of 4 credit hours at the 300-400 level. 8 sh

Total 68 sh

A minor in Dance requires the following courses (no audition required):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 101</td>
<td>Dance Appreciation</td>
<td>4 sh</td>
</tr>
<tr>
<td></td>
<td>(This must be completed before a minor can be declared.)</td>
<td></td>
</tr>
<tr>
<td>DAN 104</td>
<td>Modern I</td>
<td>1 sh</td>
</tr>
<tr>
<td>DAN 114</td>
<td>Modern II</td>
<td>1 sh</td>
</tr>
<tr>
<td>DAN 106</td>
<td>Ballet I</td>
<td>1 sh</td>
</tr>
<tr>
<td>DAN 116</td>
<td>Ballet II</td>
<td>1 sh</td>
</tr>
</tbody>
</table>

Choose one course from: 4 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 301</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 302</td>
<td>Dance History II</td>
</tr>
</tbody>
</table>

Eight semester hours of dance electives with a minimum of 4 credit hours at the 300-400 level. 8 sh

Total 20 sh
DAN 101. DANCE APPRECIATION 4 sh
This course invites dancers and nondancers to learn basic dances and their history in the area of performing arts and social dances of a variety of periods. The creative process of dance will also be explored. Offered fall only.

DAN 102. SOMATIC THEORIES I 4 sh
This course enables students to explore the body-mind centering theories of Irmgard Bartenieff, Joseph Pilates and classical yoga. Students will learn core movement patterns that pay particular attention to flexion and extension of the spine; rotation; spiraling; pelvis integration; relation of the head, neck and back; and breath. Students will improve movement habits, increase self-awareness of postural and movement characteristics, and move more effectively and efficiently. Offered fall.

DAN 104. MODERN I 1 sh
This is an introductory course in modern dance that develops the group consciousness while introducing individual students to their own movement potential through technical training and movement exploration. Theoretical knowledge of dance as an expressive art form is gained through lecture/discussion based on class work, required readings, written assignments and attendance at dance concerts. This class may be repeated once for credit. Offered fall and spring.

DAN 105. TAP I 1 sh
The student will be introduced to the basics of rhythm tap, including technique, traditional movement vocabulary, rhythmic sensibility, history and the development of individual style. May be repeated for credit. Offered fall and spring.

DAN 106. BALLET I 1 sh
This is an introductory course in ballet that develops the group consciousness while introducing the individual to his or her own movement potential through technical training. Theoretical knowledge of dance as an expressive art form is gained through lecture/discussion based on class work, required readings, written assignments and attendance at dance concerts. This class may be repeated once for credit. Offered fall and spring.

DAN 107. JAZZ I 1 sh
This is an introductory course in jazz dance that develops the group consciousness, while introducing the individual to his or her own movement potential through technical training. Theoretical knowledge of dance as an expressive art form is gained through lecture/discussion based on class work, required readings, written assignments and attendance at dance concerts. This class may be repeated once for credit. Offered fall and spring.

DAN 108. WORLD DANCE I 2 sh
This hybrid course combines traditional lecture with active studio course work. Students explore historical and cultural contexts of specific dance and music forms. Topics covered may include African, Flamenco, Korean and East Asian, among others. Offered twice every fall and spring semester as half-semester course; may be taken for repeat credit.

DAN 114. MODERN II 1 sh
This course is for the student with previous experience in modern dance. Students gain an appreciation of modern dance and develop a framework for the aesthetic criteria used in order to be informed observers of modern dance. This class may be repeated once for credit. Offered fall and spring.

DAN 115. FOLK, SQUARE AND SOCIAL DANCE PEDAGOGY 2 sh
This course introduces the student to various folk, square and social dance forms through analysis, demonstration and practice with the objective being knowledge of the characteristics of each form and ability to participate in each. Offered fall.
DAN 116.  BALLET II  
1 sh
This course is for the student with previous experience in ballet. Students gain an appreciation of ballet and develop a framework for the aesthetic criteria used in order to be informed observers of ballet. This class may be repeated once for credit. Offered fall and spring.

DAN 150.  DANCE FOR THE MUSICAL STAGE I  
1 sh
This course is designed for the incoming music theatre major. Levels and abilities will be assessed, alignment corrected, fundamental dance technique and conditioning exercises taught and drilled in order to ready the student for dance technique and styles classes required by their major. Students will also learn fundamental locomotor skills and the basic techniques required for jumping and turning. Dance combinations stressing steps and styles historically and traditionally used in music theatre will be taught to a variety of musical styles. Stress is placed on giving the student a new awareness of and comfort with his or her body: to condition, gain the ability to apply dance technique and learn to express musicality in a physical way. No prerequisite. For music theatre majors only. To be taken in the fall of the music theatre major’s first year.

DAN 202.  SOMATIC THEORIES II  
4 sh
This course is a continuation of DAN 102 with additional focus on experiential anatomy: moving with awareness through the anatomy of motion. Special attention is placed on achieving balance through the action of key muscles of the trunk and hips and the alignment of the skeleton to gravity through all of the joints. The theories of Moshe Feldenkrais and somatic yoga will be integrated with the study of motor coordination patterns as related to expressive movement. Prerequisite: DAN 102 with a grade of “B.” Offered spring.

DAN 204.  MODERN III  
1 sh
In this course, students focus on the qualitative aspects of modern movement and develop speed in movement analysis and synthesis. Attention is placed on alignment, musicality, expression and aesthetic understanding of the genre. Reading, observation, written assignments and attendance at dance concerts required. The class may be repeated once for credit. Placement audition required. Offered fall and spring.

DAN 205.  TAP II  
1 sh
This course continues to focus on the aspects of DAN 105 plus the introduction of contemporary vocabulary, flash work, improvisation, polyrhythms and choreography. May be repeated for credit. Prerequisite: DAN 105 or permission of instructor. Offered fall and spring.

DAN 206.  BALLET III  
1 sh
In this course, students focus on developing technical ballet skills while simultaneously expanding appreciation for ballet. Attention is placed on alignment, musicality, expression and aesthetic understanding of the genre. Reading, observation, written assignments and attendance at dance concerts required. The class may be repeated once for credit. Placement audition required. Offered fall and spring.

DAN 207.  JAZZ II  
1 sh
This course is for the student with previous experience in jazz dance. Students gain an appreciation of jazz and develop a framework for the aesthetic criteria used in order to be informed observers of jazz dance. This class may be repeated once for credit. Offered fall and spring.

DAN 210.  YOGA  
2 sh
This course introduces the student to the ancient practice of yoga toward mind, body and spirit integration. Specific practices include visualization, sound (mantra), gestures (mudra), breath and meditation, which will aid with such problems as stress, anxiety, weakness and stiffness. Offered twice every fall and spring semester as a half-semester course; may be taken for repeat credit.
DAN 214. MODERN IV 1 sh
This course provides further study in applied modern dance instruction for the students who need additional work at the intermediate level for refinement of skills and a more in-depth technical development before promotion to the advanced level. Reading, observation, written assignments and attendance at dance concerts required. Prerequisite: DAN 204 with a grade of “B.” This class may be repeated once for credit. Offered fall and spring.

DAN 216. BALLET IV 1 sh
This course provides further study in applied ballet dance instruction for the students who need additional work at the intermediate level for refinement of skills and a more in-depth technical development before promotion to the advanced level. Reading, observation, written assignments and attendance at dance concerts required. Prerequisite: DAN 206 with a grade of “B.” This class may be repeated once for credit. Offered fall and spring.

DAN 223. DANCE ENSEMBLE 1 sh
Students accepted into this course will perform in departmental dance concerts and must be coregistered in a technique class, preferably at the intermediate or advanced level. Admission by audition only. Offered fall and spring.

DAN 225. MEN’S DANCE TECHNIQUE 1 sh
This course focuses on the development and strengthening of the male dancer’s technical execution, performance and artistic expression. Attention is placed on alignment, balanced strength and flexibility, coordination, speed, stamina, musicality and expression. Readings, observations, written assignments and dance concert attendance are required. May be repeated for credit. Prerequisite: DAN 116 with a grade of “B.” Offered spring.

DAN 230. DANCE IMPROVISATION I 4 sh
This course is a guided exploration of the elements of dance — space, time, energy, rhythm and design — and an introduction to contact improvisation. Through learning dance improvisation and contact improvisation skills, dancers discover how to think and move “outside the box,” and develop unique and personal movement repertoire. This course provides a creative and technical wellspring from which the dancer will draw and prepares the dancer for the choreographic process. Offered spring.

DAN 231. DANCE CHOREOGRAPHY I 4 sh
This course emphasizes the elements of dance composition including time, dynamics, design, space, energy and rhythm. Students will explore these elements through compositional studies and apply this knowledge through the creation of an original solo and a duet. The professor and fellow students, utilizing the Field Method of Artistic Feedback, will give choreographic evaluation. Prerequisite: DAN 116 with a grade of “B.” Offered spring.

DAN 250. DANCE FOR THE MUSICAL STAGE II 1 sh
A continuation course expanding upon the knowledge and skills introduced in DAN 150. The focus is on integrating technique with performance, while exploring the traditional musical theatre vernacular in more depth. Historical lineage of music theatre dance remains an emphasis. Prerequisite: DAN 150. Restricted to sophomore music theatre majors, others by permission of instructor. Offered spring.

DAN 301. DANCE HISTORY I 4 sh
This course explores the origins of dance and its development through the Renaissance. Dance as a performing art and dance as a social and educational art will be covered. Students will learn through lectures, discussions, experiential dances and research projects. Offered fall.

DAN 302. DANCE HISTORY II 4 sh
This course explores the history of dance from the Renaissance through current trends of dance in the 21st century. Dance as a performing art and as a social art will be a component of this course. Students will live the journey through lectures, discussion, videos, experiential dances and research projects. Offered spring.
DAN 304. MODERN V 1 sh
This is an intensive course in modern dance employing various established techniques for a more complete development of skills and an understanding of the aesthetic criteria for the modern dance style. This course also poses questions for self-evaluation as a dancer. Theoretical knowledge of dance as an expressive art form is gained through lecture/discussion based on class work, reading, observation, written assignments, and attendance at dance concerts. Prerequisite: DAN 214 with a grade of “B.” This class may be repeated once for credit. Offered fall and spring.

DAN 305. TAP III 1 sh
This course offers continuation of the skills developed in DAN 205 with an intense focus on rhythmic sensibility, development of personal style, choreography and improvisation. Prerequisites: DAN 205 and permission of instructor. May be repeated for credit. Offered fall or spring.

DAN 306. BALLET V 1 sh
This course provides intensive instruction in ballet and pointe through technique classes at the advanced level for a more complete development of technical skills and a more profound understanding of the aesthetic criteria for classical ballet. Theoretical knowledge of dance as an expressive art form is gained through lecture/discussion based on class work, reading, observation, written assignments and attendance at dance concerts. Prerequisite: DAN 216 with a grade of “B.” This class may be repeated once for credit. Offered fall and spring.

DAN 307. JAZZ III 1 sh
In this course, students focus on developing technical ballet skills while simultaneously expanding appreciation for jazz. Attention is placed on alignment, musicality, expression and aesthetic understanding of the genre. Reading, observation, written assignments and attendance at dance concerts required. The class may be repeated once for credit. Placement audition required. Offered fall and spring.

DAN 310. ADVANCED PROJECTS IN DANCE 2-4 sh
For this in-depth study of a special topic, the advanced dancer may be given a performance assignment to demonstrate advanced proficiency in the field (e.g., dance captain for a theatre production, major choreographic duties in department productions, major role in guest choreographer’s concert piece, internship at local dance studio culminating in performance and choreographic work or an independent research project). Prerequisite: Advance permission of instructor.

DAN 315. ADVANCED YOGA PHILOSOPHY, THEORY AND PRACTICE 4 sh
This course interweaves the intellectual, spiritual and experiential aspects of yoga. Students will study the philosophies of Ancient India that led to the development of the practice of yoga; the physiological and esoteric yogic theories; the physical embodiment of the postures, breathing techniques and meditative tools. Prerequisite: DAN 210.

DAN 319. THE FOSSE LEGACY 4 sh
Explore the technique, style and work of the legendary Bob Fosse, one of the most successful, innovative and influential Broadway choreographers of all time through an intensive combination of practical classes, artistic performance and research. For the serious and advanced dancer. Prerequisites: DAN 307 or permission of instructor.

DAN 320. SPECIAL TOPICS IN DANCE 2-4 sh
Topics for this in-depth study vary each semester it is offered and may include Pilates, dance for the camera, contact improvisation forms, etc. May be repeated for credit.

DAN 321. DANCE INTENSIVE 4 sh
This course is designed for the advanced dancer to experience rigorous intensive dance in contemporary technique and creative choreographic experiences. Students will learn fast-paced combinations similar to the training of a professional dancer while attaining strength and individual performance enhancement. Offered Winter Term only; may be taken for repeat credit.
DAN 322. DANCE REPERTORY 4 sh
This course is an advanced-level dance technique class where one particular genre of dance is studied producing a concert piece. The style of dance may be from such areas as ballet, modern, tap, jazz or ethnic dance. Offered winter or spring semester only through audition and instructor permission; may be taken for repeat credit.

DAN 331. DANCE CHOREOGRAPHY II 4 sh
This advanced composition course builds upon the creative and technical skills gained in DAN 231 and is devoted to the extensive exploration of choreographic techniques. The utilization of environment, technology, sound, text and scores for dance making will be addressed. The course will focus on developing theme-based choreographic works that are informed by theoretical and creative engagement with contemporary issues and concerns. Prerequisite: DAN 231 with a grade of “B.” Offered fall.

DAN 341. DANCE IN WORSHIP 4 sh
This course is an exploration of the role of dance in worship in a variety of cultures from primitive ancient rituals through 21st-century contemporary worship. Although a lecture course, students will at times be active participants in various forms of sacred dance. Students will also learn of the history and theory of dance as a form of worship. This course is for dancers and nondancers.

DAN 350. DANCE FOR THE MUSICAL STAGE III 1 sh
This course is a continued study of theatre dance designed to expand and enhance the student's working knowledge of the art form. At this level, the student will be pushed to cross the line into intermediate-level artistic and technical work building on the coursework covered in DAN 150 and DAN 250. Prerequisite: DAN 250. Restricted to junior music theatre majors, others by permission of instructor. Offered fall.

DAN 404. MODERN VI 1 sh
This course provides advanced work in modern dance technique for individual students who need to continue technical development at the advanced level in order to reach their fullest potential as artists. It includes instructions in advanced modern technique and individual coaching in aspects of techniques that need further analysis and refinement. Advanced reading, observation and writing assignments are required. Prerequisite: DAN 304 with a grade of “B.” This class may be repeated once for credit. Offered every other semester.

DAN 406. BALLET VI 1 sh
This course provides advanced work in ballet dance technique for individual students who need to continue technical development at the advanced level in order to reach their fullest potential as artists. It includes instruction in advanced ballet and pointe technique and individual coaching in aspects of techniques that need further analysis and refinement. Advanced reading, observation and writing assignments are required. Prerequisite: DAN 306 with a grade of “B.” This class may be repeated once for credit. Offered every other semester.

DAN 407. JAZZ IV 1 sh
This course is the most advanced jazz dance technique geared toward the dance major and the music theatre major. Prerequisite: DAN 307 with a grade of “B.” This class may be repeated once for credit. Offered every other semester.

DAN 450. DANCE FOR MUSICAL STAGE IV 1 sh
A continuation course at the advanced level expanding upon the knowledge and skills introduced in DAN 350. The focus is on integrating technique with performance while exploring the traditional musical theatre vernacular in more depth. Historical lineage of music theatre dance remains an emphasis. Prerequisite: DAN 350. Restricted to senior music theatre majors, others by permission of instructor. Offered fall.

DAN 495. SENIOR SEMINAR I 2 sh
This course begins the capstone experience for the senior dance major, exploring a variety of topics and skills to help prepare the student for graduate study or work in the profession.
Preparation of their creative portfolio begins in this course and is completed in DAN 496. Additionally, each student must begin research preparation for their final project demonstrating proficiency in performance choreographic and production skills. This project may be completed either in this course or in DAN 496, both of which are required for the degree. Offered fall.

**DAN 496. SENIOR SEMINAR II**

This course completes the capstone experience for the senior dance major, continuing the exploration of topics and skills to help prepare the student for graduate study or entry to the profession. Completion of the creative portfolio is required in this course. Additionally, each student must complete the final project demonstrating proficiency in performance choreographic and production skills either in this course or in DAN 495, both of which are required for the degree. Completion of DAN 495 and DAN 496 satisfy the Experiential Learning Requirement. Offered spring.

**Economics**

*Chair, Department of Economics: Associate Professor Barbour*

*Professors: J. Das, DeLoach, Tiemann*

*Associate Professors: DiRienzo, Lilly, Platania, Redington*

*Assistant Professors: Bednar, Kurt, Rouse, Strohush*

Economics explores a broad range of questions about society and uses a variety of methods to answer those questions. The courses offered by the Department of Economics are designed to help students develop economic reasoning: a particular way of looking at the world that is useful in government service, business, the law and many other fields.

The goal of the economics faculty is to teach students to “think like an economist.” This goal is achieved within two flexible majors; economics and international economics. The department has defined specific tracks that will help students apply their knowledge in a number of areas and help achieve their aspirations. While the tracks provide a suggested framework of classes for students with varied interests, a track is not required for either a major or a minor in economics. The financial economics track would apply if a student plans a future in finance or banking; the public policy track if the interest is in government service; the economic analysis track for those in market analysis; and the mathematical economics track for students interested in graduate school.

In addition to the economics major, the department offers a major in international economics. The overall goal of the international economics major is to extend the global reach of Elon by preparing students for careers in international policy making and research organizations. Students are prepared for entry level analyst jobs in international organizations by providing a program that combines Elon’s strengths in undergraduate research, foreign language and culture instruction, and study abroad.

**A major in Economics requires the following courses:**

Choose one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MTH 116</td>
<td>Applied Mathematics with Calculus</td>
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<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 111</td>
<td>Principles of Economics</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 203</td>
<td>Statistics for Decision Making</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 310</td>
<td>Intermediate Macroeconomic Theory</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 311</td>
<td>Intermediate Microeconomic Theory</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
ECO 347  Introduction to Econometrics  4 sh
ECO 465  Senior Thesis Workshop  2 sh
ECO 495, 498, or 499
         Senior Thesis Research in Economics  2 sh
Sixteen hours ECO electives at the 300-400 level, with  16 sh
At least four hours from courses designated Applied Macroeconomics
         (ECO 302, 314)
At least four hours from courses designated Applied Microeconomics
         (ECO 320, 321, 335, 421, 432)
At least four hours from the 400 level
         ECO 410  Economic Growth and Development
         ECO 421  Industrial Organization and Regulations
         ECO 432  Public Finance
         ECO 440  Urban Economics and Planning
         ECO 471  Advanced Special Topics in Economics
No more than eight hours of travel, internship, independent study and
         non-thesis research credit may be counted toward economics elective credit.

TOTAL  44 sh

A minor in Economics requires the following courses:

Choose one course from the following:  4 sh
         MTH 116  Applied Mathematics with Calculus
         MTH 121  Calculus I
         ECO 111  Principles of Economics  4 sh
         ECO 203  Statistics for Decision Making  4 sh
Choose one course from the following:  4 sh
         ECO 310  Intermediate Macroeconomic Theory
         ECO 311  Intermediate Microeconomic Theory
Eight hours from other ECO electives  8 sh
No more than four hours of travel, internship, independent study and
         research credit may be counted toward economics elective credit.

TOTAL  24 sh

A major in International Economics requires the following courses:

MTH 121  Calculus I  4 sh
MTH 221  Calculus II  4 sh
ECO 111  Principles of Economics  4 sh
ECO 203  Statistics for Decision Making  4 sh
ECO 310  Intermediate Macroeconomic Theory  4 sh
ECO 311  Intermediate Microeconomic theory  4 sh
ECO 314  International Trade and Finance  4 sh
ECO 347  Introduction to Econometrics  4 sh
ECO 465 Senior Thesis Workshop 2 sh
ECO 495, 498, or 499 Senior Thesis Research 2 sh
Four hours ECO elective at the 400 level 4 sh

Foreign language study
Foreign Language Proficiency at the 222 level 0 - 8 sh
Foreign Language conversation or composition at the 300-level 4 sh
Semester abroad including an economics course and a course taught in the foreign language 4 - 8 sh**

TOTAL 48 - 60 sh

** It is preferred that students take an economics course taught in the foreign language. However, it is not required that the economics course be in the foreign language, only that an economics course be taken, and that a course in a foreign language be taken.

ECO 111. PRINCIPLES OF ECONOMICS 4 sh
An introduction to the fundamentals of both microeconomics and macroeconomics, including supply and demand, the theory of the firm, consumer behavior, macroeconomic equilibrium, unemployment and inflation. The course also introduces students to economic methodology, including creating arguments, empirical verification and policy decision-making. Offered fall, spring and summer.

ECO 203. STATISTICS FOR DECISION MAKING 4 sh
Applications of statistics to create knowledge useful for decision making. Bayesian probability, hypothesis testing, process and quality control and multivariate statistics, including multiple linear regression and forecasting are among the topics covered. A standard spreadsheet program will be used for most applications and oral and written presentation of statistical results will be required. Prerequisite: completion of the first year core math requirement.

ECO 261-69. SPECIAL TOPICS IN ECONOMICS 4 sh
These courses will be offered occasionally and are designed for students with little or no prior background in economics. Each course will study a timely topic or issue in economics in a manner that will meet the Society requirement of the Studies in the Arts and Sciences graduation requirement.

ECO 271. SEMINAR: ECONOMIC ISSUES 1-4 sh
A series of courses covering contemporary issues in economics not otherwise covered in the curriculum. The topics will vary around a common theme of timeliness. These courses are appropriate to students from across the university irrespective of major or level.

ECO 301. BUSINESS ECONOMICS 4 sh
What functions do firms serve, and where do firms fit in a market economy? We will explore these questions by analyzing two perspectives. The first perspective is that firms are rational agents in markets, maximizing profits subject to the constraints of demand, production, cost and market structure. The second perspective is that a firm is a complex organization that has emerged in response to problems of information, strategy and value maximization. In the first perspective, firms are subordinate to markets. In the second perspective, the firm can often coordinate activity more effectively than markets. How — and when — is this possible? Applied Microeconomics. Prerequisites: ECO 111, 203 and MTH 116 or 121. Offered fall, spring and summer.

ECO 302. MONEY AND BANKING 4 sh
Students learn about the history and structure of the U.S. financial system. Exploration of the interaction between the primary financial markets — money, bonds and foreign exchange — is fundamental to this understanding. The theory and conduct of monetary policy is also developed, with particular attention paid to the evolution of the international
monetary system. Applied Macroeconomics. Prerequisites: ECO 111 and 203. Offered spring.

ECO 310. INTERMEDIATE MACROECONOMIC THEORY 4 sh
This course concentrates on the theory of economic growth and the business cycle. Building on the simple Keynesian spending model, the IS-LM general equilibrium model is developed. Current policy debates, as well as debates within the discipline, are explored and evaluated. Particular emphasis will be placed on the interaction of the theoretical and empirical components of macroeconomics. Prerequisites: ECO 111; MTH 116 or 121; or permission of the instructor. ECO 203 is required as either a prerequisite or a co-requisite, or for statistics majors only, MTH / STS 212 as a pre- or co-requisite. Offered fall and spring.

ECO 311. INTERMEDIATE MICROECONOMIC THEORY 4 sh
With this study of how individual agents, both firms and households, interact in various kinds of markets, students gain a better understanding of household economic behavior, firm behavior and the conditions under which prices can most effectively allocate scarce resources. Prerequisites: ECO 111; MTH 116 or 121; or permission of the instructor. ECO 203 is required as either a prerequisite or co-requisite, or for statistics majors only, MTH/STS 212 as a pre- or co-requisite. Offered fall and spring.

ECO 314. INTERNATIONAL TRADE AND FINANCE 4 sh
This course focuses on how policies implemented by a country, both in trade and finance, influence its welfare at home and abroad. Topics in trade include specialization and gains from trade; determinants of trade patterns; the role of increased globalization on a nation’s competitiveness and its distribution of income; the political economy of protectionism at the national, regional (NAFTA, EU) and international (WTO) levels; and the use of trade policies to influence development and growth. Topics in finance include balance on international payments, the foreign exchange market, the economic policy adjustments under fixed and flexible exchange rates, and focuses on the problems of international finance and international investments across countries. Applied Macroeconomics. Prerequisite: ECO 111. Offered spring.

ECO 315. ECONOMIC HISTORY 4 sh
This course introduces and analyzes the importance of economic issues in the history of nations and regions. In the words of J.M. Keynes, “indeed the world is driven by little else.” The course is structured so that work will focus on a particular region of the world. The overarching objective of the course is to develop students’ appreciation of the importance of economic activity and economic structures in the historical development of society. Prerequisites: Junior standing or ECO 111.

ECO 317. GENDER AND DEVELOPMENT 4 sh
This course is designed to help students investigate the economic status of women in the labor market, how that role has changed over time and the differences between labor market outcomes for both men and women. It involves a comparison of women and men with respect to labor supply (market and nonmarket work), wage rates, occupational choices, unemployment levels, and the changing role of work and family. Topics include discrimination, pay inequity, occupational segregation, traditional and nontraditional work, resource ownership, poverty, race, the global economic status of women and public policy issues, such as comparable worth and family-friendly policies designed to bridge the gap between women and men. Prerequisites: Junior standing or ECO 111.

ECO 320. HEALTH ECONOMICS 4 sh
Over the past decade, some of the most heated political debates have centered on health care policy and reform. In this class, we will investigate health and healthcare markets using economic theory and analysis. As an applied economics course, our goal will be to objectively assess the allocation of scarce resources within the context of the U.S. health care system. Topics may include the demand and supply of health care and health insurance, Medicare and Medicaid, comparative health systems and reform, causes and consequences
of obesity, and economic models of tobacco and alcohol addiction. Prerequisite: ECO 111 and ECO 311 or permission from instructor.

ECO 321. LABOR ECONOMICS  
This is a course in the economics of labor markets. The course develops theory regarding labor demand, labor supply, equilibrium outcomes in the market for labor services, and public policy affecting labor markets. It also recounts for modification of traditional wage theory. Economic aspects of labor unions, bargaining theories of wages, minimum wage legislations, labor supply incentives of various welfare programs, occupational licensure, labor mobility, migration and discrimination theories are issues of interest. Prerequisite: ECO 111 and ECO 311 or permission from instructor.

ECO 335. ENVIRONMENTAL ECONOMICS  
This course explores the interaction of economic forces and policies with environmental issues. What are the costs of pollution and what are we buying for those costs? Who bears the burden of environmental damage? How might we reduce environmental impact and how do we decide how much damage is appropriate? Applied Microeconomics. Prerequisite: ECO 111. Offered fall.

ECO 347. INTRODUCTION TO ECONOMETRICS  
This course explores the statistical problems associated with the measurement and evaluation of economic models. As such, it requires the simultaneous consideration of economic theory. The focus of the course is on the application of econometric techniques to real world problems encountered in economics. We begin with simple regression analysis and proceed to investigate the problems of multicollinearity, heteroskedasticity and autocorrelation. Advanced topics include limited dependent variable models and cointegration. Prerequisites: ECO 111 and ECO 203, or for statistics majors only, MTH 212 and MTH 116 or 121 or higher or permission of instructor.

ECO 348. MATHEMATICAL ECONOMICS  
This course is designed to provide students in economics and mathematics with an opportunity to learn and use the tools of economics in the manner in which they are employed in the profession. While mathematical techniques such as constrained optimization and multidimensional modeling will be taught, the principal aim of the course is to develop students' facility with using mathematics as a basis for economic reasoning. Prerequisites: ECO 203, ECO 310, ECO 311 and MTH 116 or higher or permission of instructor.

ECO 349. HISTORY OF ECONOMIC THOUGHT  
Students survey the evolution of economic thought from antiquity to the present and learn to identify and critically evaluate various schools of economic thought. In particular, students will develop a sense of economics as part of the larger sweep of intellectual advancement and the place thoughts about economic matters occupy in human knowledge. Prerequisites: ECO 310 and 311 or permission of instructor.

ECO 357. FORECASTING AND TIME SERIES ECONOMETRICS  
This course begins with a review of simple linear regression and then continues with more advanced topics in multiple regression such as autocorrelation, heteroscedasticity, multicollinearity, regression interaction terms, functional forms, partial F and Chow tests, among others. The course concludes with time series forecasting techniques such as exponential smoothing models, moving averages and more sophisticated techniques such as time-series decomposition, ARIMA (Box-Jenkins) and others. The course material is applied to economic, business and financial topics. Excel with the add-in package ForecastX and SAS Enterprise Guide software will be used.

ECO 361-69. SPECIAL TOPICS IN INTERMEDIATE ECONOMICS  
These courses will be offered occasionally and are designed for students with some background in economics. Each course will study a timely topic or issue in economics in a manner that will meet the Society requirement in the Arts and Sciences or the Advanced Studies graduation requirement.
ECO 371. SPECIAL TOPICS IN ECONOMICS 1-4 sh
A series of courses reflecting new contributions in economics or specialized areas not otherwise covered in the curriculum. Topics have included “Starting a Small Business,” “The European Union via the Internet” and “The Economics of Sport.” Prerequisites: Will vary with the topic but will generally include junior standing or ECO 111 and 203.

ECO 381. INTERNSHIP IN ECONOMICS 1-8 sh
This course provides opportunities for students to apply concepts and information gathered in the economics classroom to actual experience in the community. Placements may include businesses, not-for-profit organizations or teaching assistants in lower-division economics classes. Prerequisites: Junior standing or ECO 111 and 203 or permission of instructor. Offered fall, winter, spring and summer.

ECO 391. INDEPENDENT STUDY 1-4 sh
Students pursuing the major or minor in economics may complete individual study in an area of special interest that is not otherwise covered in regular course offerings. Study is to be undertaken under the guidance of a member of the economics faculty. An Independent Study form must be completed prior to registration. Prerequisites: Junior standing or ECO 111 and 203 or permission of instructor. Offered fall, winter, spring and summer.

ECO 399. RESEARCH IN ECONOMICS 1-4 sh
In collaboration with an economics faculty member, students undertake an empirical or theoretical study of a topic in economics. Research topics may include a review of the relevant research literature, data collection and analysis, and a presentation or report when the study is completed. A research proposal form, completed by the student in conjunction with the faculty member, is required for registration. Students may register for 1-4 hours of credit per semester and may register for more than one semester of research. Prerequisites: Junior standing or ECO 111 and 203. Offered fall, winter, spring and summer.

ECO 410. ECONOMIC GROWTH AND DEVELOPMENT 4 sh
This is a blend of Economic Growth and Economic Development. In the first half of the course we will develop the neoclassical growth model—the workhorse of modern macroeconomics to provide the theory for why countries experience economic growth and raise standards of living. The second half of the course will focus on Economic Development. By combining economic models and case studies, one can draw lessons regarding what approaches have worked to alleviate poverty. The course pays particular attention to situations that have led to economic crises and growth miracles. We will also take a critical look at the role of the United Nations in economic development. Prerequisites: ECO 310, completion or concurrent enrollment in either ECO 301 or ECO 311 or permission of instructor.

ECO 421. INDUSTRIAL ORGANIZATION AND REGULATION 4 sh
This is a policy course concerned with the structure of firms and markets and their interactions. Real world market frictions such as limited information; transaction costs; costs of adjusting prices; advertising, research and development expenses; government actions; and barriers to entry by new firms into a market will be examined. This course offers a critical understanding of specific industries such as computers, airline, automobile, telecommunications, etc. Students study how firms in such industries strategically react to rivals and customers and further examine the impact of antitrust regulation, public utility regulation and social regulation on American business. Applied Microeconomics. Prerequisites: Completion or concurrent enrollment in ECO 310 and ECO 311 or permission of instructor.

ECO 430. EXPERIMENTAL ECONOMICS 4 sh
This course will develop your ability to learn from experience. We will explore the general principles of experimental design and review the history of experimental economics. The primary student task in the course will be to design, implement, analyze and describe a significant experiment. We will use the statistical software SAS to analyze the data. No previous experience with SAS is needed. Prerequisites: Completion or concurrent enrollment in ECO 310 and 311 or permission of instructor.
ECO 432.  PUBLIC FINANCE  
This course lies at the intersection of economics and political science. The principal issue is an examination of the question: “What is the proper role of government in the economic sphere?” Specific topics include optimal taxation, tax incidence, expenditure analysis, how governments decide among alternative programs, public production, and bureaucracy and equity-efficiency tradeoffs. The course deals with the relationships among governments at the federal, state and local levels from both theoretical and applied perspectives. Applications vary from year to year, but will likely include health care, defense, social insurance, welfare and education. Applied Microeconomics. Prerequisites: Completion or concurrent enrollment in ECO 310 and 311 or permission of instructor.

ECO 440.  URBAN ECONOMICS AND PLANNING  
A study of the development of cities and how public policy has and can affect their form and health. Land values, urban problems, urban transportation, zoning and planning and local government finance will be covered. Prerequisites: Completion or concurrent enrollment in ECO 310 and 311 or permission of the instructor.

ECO 465.  SENIOR THESIS WORKSHOP  
This seminar will develop your abilities to do independent research using the concepts and tools of economic analysis. The principal assignment for this fall semester course is to undertake a research project and to produce and present a literature review and a proposal for your senior thesis. The thesis itself will be due at the conclusion of the spring semester. Offered fall semester.

ECO 471.  ADVANCED SPECIAL TOPICS IN ECONOMICS  
A series of courses reflecting new contributions in economics or specialized areas not otherwise covered in the curriculum. Prerequisites: Will vary with the topic but will generally include completion or concurrent enrollment in ECO 310 and 311. Offered fall, winter and spring.

ECO 481.  ADVANCED INTERNSHIP IN ECONOMICS  
This course provides opportunities for students to apply concepts and information gathered in the economics classroom to actual experience in the community. Placements may include businesses, not-for-profit organizations or teaching assistants in lower-division economics classes. Prerequisites: Will vary with the topic but will generally include completion or concurrent enrollment in ECO 310 and ECO 311 or permission of instructor. Enrollment limited to economics majors. Offered fall, winter, spring and summer.

ECO 491.  ADVANCED INDEPENDENT STUDY  
Students pursuing the major or minor in economics may complete individual study in an area of special interest that is not otherwise covered in regular course offerings. Study is to be undertaken under the guidance of a member of the economics faculty. An Independent Study form must be completed prior to registration. Prerequisites: Will vary with the topic but will generally include completion or concurrent enrollment in ECO 310 and ECO 311 or permission of instructor. Enrollment limited to economics majors. Offered fall, winter, spring and summer.

ECO 495.  SENIOR THESIS  
This is the culmination of the economics major and serves as the student’s required comprehensive evaluation in the major field of study. For this research project, economics majors work individually with a professor to build on work done in previous courses, culminating in a work of presentation quality. The completed work is to be presented in a public forum such as Elon’s Spring Undergraduate Research Forum, national or regional professional society meetings or at a campus-level economics symposium. In addition, all students are to present their work before the collected faculty, students and guests of the economics department. Prerequisites: ECO 310, 311 and eight additional hours of economics numbered 300 or above; senior economics majors only.
ECO 499. UNDERGRADUATE RESEARCH 1-4 sh

In collaboration with an economics faculty member, students undertake an empirical or theoretical study of a topic in economics. Research projects may include an extensive review of literature, data collection and econometric analysis and public presentation (oral or written) of the study after completion. Prerequisite: Approval of faculty mentor and department chair.

Education

Dean: Professor Cooper
Chair, Department of Education: Associate Professor Stuart
Professors: Crawford, Dillashaw, Long
Associate Professor: Byrd, Knight-McKenna, Mihans, Rattigan-Rohr, Stasz
Assistant Professors: Barnatt, Carpenter, Dyce, Enfield, Rands, Tomasek

The mission of teacher education at Elon is to prepare quality teachers who are knowledgeable, responsible and thoughtful professionals. The conceptual framework, “thoughtful practice in a community of learners,” reflects the intention to create a learning environment in which teacher candidates inquire and collaborate to develop the knowledge, skills and dispositions for effective professional practice.

Knowledge

1. Demonstrate in-depth knowledge of the subject area(s) for which they seek licensure.
2. Use knowledge of students’ learning process to inform instruction.
3. Demonstrate understanding of pedagogical knowledge relevant to the subject area(s) for which they seek licensure.
4. Choose appropriately from among multiple instructional strategies to promote optimal student learning.
5. Choose appropriately from among a variety of resources, including technology, to promote active student learning.

Inquiry

6. Seek to understand students’ family and community, collaborate with parents and professional colleagues, and establish a knowledge-building community to inform practice.
7. Inquire, actively and persistently, about student learning through the use of a variety of assessment procedures.
8. Analyze, through reflective practice, the effectiveness of their instruction and make appropriate adaptations to maximize student learning.

Professionalism

9. Establish positive classroom learning environments that support the social and academic growth of students.
10. Hold high expectations for the academic and social growth of all students.
11. Seek opportunities to further personal learning and professional growth.
12. Demonstrate enthusiasm and respect for the profession of teaching.

Elon’s teacher education program prepares teachers for careers in the elementary, middle and high school grades. The program emphasizes practical hands-on experience in classrooms as well as educational theory and pedagogy. Field experiences in public school class-
rooms begin the first year and culminate with a full semester of teaching in the teacher candidate's licensure area.

Elon is widely recognized for the success of its teacher education program, which is accredited by the National Council for Accreditation of Teacher Education, and is one of only five private institutions in the state selected to offer the prestigious N.C. Teaching Fellows program.

Elon offers programs leading to N.C. licensure in early childhood education, elementary education, middle grades education, special education (general curriculum), special subject areas for grades K-12 and in seven areas at the secondary level.

Before being admitted into the teacher education program, the student must apply to the program and be recommended by the appropriate major department. The basic testing requirement for admission to teacher education is the PRAXIS I (PPST) tests in reading, writing and mathematics with minimum scores as established by the N.C. State Board of Education.

SAT or ACT scores may be substituted for the PRAXIS I tests as follows:

- Students who score at least 1100 on the SAT (combined verbal and mathematics) or an ACT composite score of 24 are exempt from taking the PRAXIS I examinations.
- If the SAT total is less than 1100 (or less than 24 ACT composite), PRAXIS I exams are required as follows:
  - Students who score at least 550 on the math SAT (24 on math ACT) are exempt from the math PRAXIS I. If the math score is less than 550 SAT (24 ACT), students must take the math PRAXIS I exam.
  - Students who score at least 550 on the verbal SAT (24 on English ACT) are exempt from both the reading and writing PRAXIS I examinations. If the verbal score is less than 550 SAT (24 ACT), students must take both the reading and writing PRAXIS I examinations.

In addition, all students must demonstrate grammar competency and earn a grade of C- or better in ENG 110 and a grade of C or better in either EDU 211 or SOC 243. Students must earn a grade of C or better in either MTH 208 or MTH 209 (if required for the major) to be admitted to the teacher education program. Students must have earned a grade of C or better in both MTH 208 and MTH 209 to be eligible to student teach. A student must earn a grade of C or better in PSY 321 before enrollment in a methods class in any of the teacher education programs. A student must earn a grade of C or better in EDU 323, Literacy Development II: Principles and Practices, (if required in the program) in order to continue in the program. A student must earn a grade of C or better in EDU 246, Math and Science for the Early Childhood Educator, prior to admission to the Early Childhood Education program.

In all cases, approval for admission to the program is subject to the discretion of the Teacher Education Committee, which bases its decision not only on the above factors, but also on satisfactory command of standard English usage (written and oral) and acceptable dispositions. Students whose dispositions are not acceptable will be interviewed by the department chair and/or a committee of education faculty. Depending on the severity of the problem, a student may be denied admission to the program or admitted with probationary status. In some cases probationary status will require a contract. Students who do not demonstrate acceptable dispositions after admission to the program may be removed by the Teacher Education Committee. All students following their admission to the program are required to attend the Teacher Candidate Induction Ceremony.

Application forms for the teacher education program are available in the office of the School of Education and must be filed by October 15 or March 15 of the semester immediately prior to beginning their Professional Education coursework. (To be eligible for department scholarships, spring applications are due by February 1 and students must be fully admitted by March 1.) A student must be unconditionally admitted to the program before being
permitted to take education courses beyond the 200 level. Any exceptions to this policy must be approved by the dean of the School of Education.

To be recommended for teacher licensure, a teacher candidate must meet all academic requirements and have a minimum GPA of 2.5. A teacher candidate must also meet the North Carolina minimum score on the Specialty Area Test (minimum scores for these tests vary with content area) and have a recommendation from the school system in which student teaching was completed.

All students who are education majors or who already hold a bachelor’s degree and are seeking only licensure are subject to the decisions and regulations of the N.C. State Board of Education. These decisions and regulations are binding on the student on the date and time specified by the board.

At Elon, the teacher education programs are fully approved by the N.C. State Board of Education. While a student ordinarily may graduate and be licensed under the catalog requirements in effect at the time the student is admitted to the teacher education program, the board may mandate changes in standards of approved teacher education programs, requiring students to modify or add to their original degree programs to be eligible for licensure upon completion of graduation requirements. Students should consult their advisor about current program requirements.

A major in Early Childhood Education requires the following:

Courses prior to professional sequence

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSS 212</td>
<td>Counseling Individuals and Families</td>
<td>4 sh</td>
</tr>
<tr>
<td>PSY 245</td>
<td>Early Childhood Development</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 211</td>
<td>School and Society</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 246</td>
<td>Math and Science for the Early Childhood Educator</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 295</td>
<td>Research Methods in Education</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Admission to teacher education is a prerequisite to enrollment in the 300-level courses in the major.

Courses in professional sequence

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 310</td>
<td>Assessment and Evidence-Based Practices for Infants and Toddlers</td>
<td>8 sh</td>
</tr>
<tr>
<td>EDU 332</td>
<td>Early Childhood Family-Team Partnerships</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 333</td>
<td>Supporting Emotional and Social Development in Early Childhood</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 301</td>
<td>Explorations Seminar I</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU 410</td>
<td>Assessment and Evidence-Based Practices for Preschool and Kindergarten Students</td>
<td>8 sh</td>
</tr>
<tr>
<td>EDU 454</td>
<td>Early Childhood Language and Literacy</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 455</td>
<td>Early Childhood Exceptionality</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 302</td>
<td>Explorations Seminar II</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU 467</td>
<td>Early Childhood Research, Policy and Practice</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 481</td>
<td>Supervision and Student Teaching</td>
<td>10 sh</td>
</tr>
<tr>
<td>EDU 303</td>
<td>Explorations Seminar III</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

TOTAL 70 sh
A minor in Early Childhood Education requires the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 245</td>
<td>Early Childhood Development</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 467</td>
<td>Early Childhood Research, Policy and Practice</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Three courses chosen from the following: 12 sh

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSS 212</td>
<td>Counseling Individuals and Families</td>
</tr>
<tr>
<td>EDU 246</td>
<td>Math and Science for the Early Childhood Educator</td>
</tr>
<tr>
<td>EDU 332</td>
<td>Early Childhood Family-Team Partnerships</td>
</tr>
<tr>
<td>EDU 333</td>
<td>Supporting Emotional and Social Development in Early Childhood</td>
</tr>
<tr>
<td>EDU 454</td>
<td>Early Childhood Language and Literacy</td>
</tr>
<tr>
<td>EDU 455</td>
<td>Early Childhood Exceptionality</td>
</tr>
</tbody>
</table>

**TOTAL** 20 sh

A major in Elementary Education consists of the courses necessary to meet the requirements for elementary education (K-6) licensure in the public schools of North Carolina. The following courses are required of all elementary education majors:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101</td>
<td>Topics in General Biology</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO 102</td>
<td>General Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>SCI 121</td>
<td>Science Without Borders</td>
<td>4 sh</td>
</tr>
<tr>
<td>POL 111</td>
<td>American Government</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 123</td>
<td>The U.S. and N.C. since 1865</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 208</td>
<td>Mathematics for Elementary/Middle Grades Teachers I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 209</td>
<td>Mathematics for Elementary/Middle Grades Teachers II</td>
<td>4 sh</td>
</tr>
<tr>
<td>(General Studies Math requirement or equivalent is a prerequisite)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 220</td>
<td>Technology in Teaching and Learning</td>
<td>3 sh</td>
</tr>
<tr>
<td>PSY 321</td>
<td>Educational Psychology</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 362</td>
<td>Healthful Living in the Elementary School</td>
<td>2 sh</td>
</tr>
<tr>
<td>FNA 369</td>
<td>Fine Arts in the Public Schools</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 211</td>
<td>School and Society</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 301</td>
<td>Explorations Seminar I</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU 302</td>
<td>Explorations Seminar II</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU 303</td>
<td>Explorations Seminar III</td>
<td>2 sh</td>
</tr>
<tr>
<td>EDU 315</td>
<td>Educational Assessment</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 323</td>
<td>Literacy Development I: Principles and Practices</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 324</td>
<td>Literacy Development II: Strategies &amp; Instruction for Struggling Readers</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 345</td>
<td>Classroom Management for Elementary, Middle Grades and Special Education Candidates</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 451</td>
<td>Teaching Diverse Learners</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
Principles of Learning and Teaching (PLT) I  
EDU 311 Principles of Learning and Teaching (PLT) I  
concentration areas:  
Language Arts and Social Studies Methods and Materials  
\textbf{or}  
EDU 312 Principles of Learning and Teaching (PLT) I  
concentration areas:  
Mathematics and Science Methods and Materials  
\textbf{AND}  
Principles of Learning and Teaching (PLT) II  
EDU 411 Principles of Learning and Teaching (PLT) II  
concentration areas:  
Language Arts and Social Studies Methods and Materials  
\textbf{or}  
EDU 412 Principles of Learning and Teaching (PLT) II  
concentration areas:  
Mathematics and Science Methods and Materials  

Students who enroll in EDU 311 will enroll in EDU 412 in the following semester.  
Students who enroll in EDU 312 will enroll in EDU 411 in the following semester.  
This will ensure that all four content areas are addressed.  

EDU 481 Supervised Observation and Student Teaching  

\textbf{TOTAL}  

The Special Education (general curriculum) is a dual licensure program in which teacher candidates complete the requirements for licensure in special education (general curriculum) and one of the following areas: elementary education, middle grades education, English education, mathematics education, social studies/history education or science education (biology concentration).  

The following courses are required of all \textit{special education (general curriculum)} students:  

\textbf{Core Courses}  
Select one course from the following:  

EDU 211 School and Society  
SOC 243 Sociology of Education  
EDU 342 Foundations of Special Education  
EDU 345 Classroom Management for Elementary, Middle Grades and Special Education Candidates  
EDU 435 Assessment Methods and Interpretation in Special Education  
EDU 444 Language and Literacy in Special Education  
EDU 445 Teaching/Learning Strategies in Mathematics and Content Areas for Special Educators  

\textbf{Total Core Courses}  

The following courses are required of all \textit{special education/elementary education} students:  

\textbf{Core Courses}  

FNA 369 Fine Arts in the Public Schools  
PEH 362 Healthful Living in the Elementary School
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST</td>
<td>The U.S. and N.C. since 1865</td>
<td>4 sh</td>
</tr>
<tr>
<td>POL</td>
<td>American Government</td>
<td>4 sh</td>
</tr>
<tr>
<td>BIO</td>
<td>Topics in General Biology</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO</td>
<td>General Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>SCI</td>
<td>Science without Borders</td>
<td>4 sh</td>
</tr>
<tr>
<td>PSY</td>
<td>Educational Psychology</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics for Elementary/Middle Grades Teachers I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics for Elementary/Middle Grades Teachers II</td>
<td>4 sh</td>
</tr>
<tr>
<td></td>
<td>(General Studies Math requirement or equivalent is a prerequisite)</td>
<td></td>
</tr>
<tr>
<td>CIS</td>
<td>Technology In Teaching and Learning</td>
<td>3 sh</td>
</tr>
<tr>
<td>EDU</td>
<td>Explorations Seminar I</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU</td>
<td>Explorations Seminar II</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU</td>
<td>Explorations Seminar III</td>
<td>2 sh</td>
</tr>
<tr>
<td>EDU</td>
<td>Literary Development I: Principles and Practices</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Principles of Learning and Teaching (PLT) I  
- EDU 311 Principles of Learning and Teaching (PLT) I  
  concentration areas: Language Arts and Social Studies Methods and Materials  
- or  
  EDU 312 Principles of Learning and Teaching (PLT) I  
  concentration areas: Mathematics and Science Methods and Materials  
  AND  

Principles of Learning and Teaching (PLT) II  
- EDU 411 Principles of Learning and Teaching (PLT) II  
  concentration areas: Language Arts and Social Studies Methods and Materials  
  or  
  EDU 412 Principles of Learning and Teaching (PLT) II  
  concentration areas: Mathematics and Science Methods and Materials  

EDU 481 Student Teaching – Winter Term  
EDU 481 Student Teaching – Spring Semester  

TOTAL 99 sh

The following courses are required of all special education/middle grades education students:

Core Courses 24 sh
- CIS 220 Technology in Teaching and Learning 3 sh
- PSY 321 Educational Psychology 4 sh
- EDU 301 Explorations Seminar I 1 sh
- EDU 302 Explorations Seminar II 1 sh
- EDU 303 Explorations Seminar III 2 sh
- EDU 441 Foundations of Middle Level Teaching 3 sh
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 442</td>
<td>Effective Middle Level Teaching</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 481</td>
<td>Student Teaching</td>
<td>10 sh</td>
</tr>
</tbody>
</table>

**Middle grades concentrations - choose one**

**Communication skills**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 205</td>
<td>Grammar</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 224</td>
<td>American Literature II</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 250</td>
<td>Interpretations of Literature</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 319</td>
<td>Writing Center Workshop</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 399</td>
<td>Young Adult Literature</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 421</td>
<td>Methods of Teaching Middle Grades and Secondary English</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 238</td>
<td>African-American Literature before 1945</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 239</td>
<td>African-American Literature since 1945</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 359</td>
<td>African-American Novels</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**Concentration total**

28 sh

**OR Social studies**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 111</td>
<td>Principles of Economics</td>
<td>4 sh</td>
</tr>
<tr>
<td>GEO 131</td>
<td>The World's Regions</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 112</td>
<td>Europe and the Mediterranean World since 1660</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 123</td>
<td>The U.S. and N.C. Since 1865</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 221</td>
<td>The World in the Twentieth Century</td>
<td>4 sh</td>
</tr>
<tr>
<td>POL 111</td>
<td>American Government</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 425</td>
<td>Methods of Teaching Middle Grades and Secondary Social Studies</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**Concentration total**

28 sh

**OR Mathematics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 112</td>
<td>General Statistics</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 208</td>
<td>Mathematics for Elementary/Middle Grades Teachers I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 209</td>
<td>Mathematics for Elementary/Middle Grades Teachers II</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Select one course from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 212</td>
<td>Statistics in Applications</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 221</td>
<td>Calculus and Analytic Geometry II</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 310</td>
<td>Mathematics for Secondary Teachers</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 422</td>
<td>Methods of Teaching Middle Grades and Secondary Mathematics</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**Concentration total**

28 sh
### OR Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101</td>
<td>Topics in General Biology</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO 102</td>
<td>General Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>SCI 121</td>
<td>Science Without Borders</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 111</td>
<td>General Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 110</td>
<td>Energy and the Environment</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 102</td>
<td>Introduction to Astronomy</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 103</td>
<td>Introduction to Geology</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 424</td>
<td>Methods of Teaching Middle Grades and Secondary Science</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**Concentration total** 28 sh

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 424</td>
<td>Methods of Teaching Middle Grades and Secondary Science</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**TOTAL** 80 sh

The following courses are required for special education/English education students

### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 220</td>
<td>Technology in Teaching and Learning</td>
<td>3 sh</td>
</tr>
<tr>
<td>PSY 321</td>
<td>Educational Psychology</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 221</td>
<td>British Literature I</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 222</td>
<td>British Literature II</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 219</td>
<td>Writing</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 205</td>
<td>Grammar</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Eight hours 300-level literature 8 sh

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 206</td>
<td>Introduction to TESOL</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 223</td>
<td>American Literature I</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 224</td>
<td>American Literature II</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 238</td>
<td>African-American Literature before 1945</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 239</td>
<td>African-American Literature since 1945</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 363</td>
<td>Teaching Literature</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 319</td>
<td>Writing Center Workshop</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 342</td>
<td>Shakespeare</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 495</td>
<td>Senior Seminar: Literature</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 302</td>
<td>Explorations Seminar II</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU 303</td>
<td>Explorations Seminar III</td>
<td>2 sh</td>
</tr>
<tr>
<td>EDU 421</td>
<td>Methods of Teaching Middle Grades and Secondary English</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 481</td>
<td>Student Teaching</td>
<td>10 sh</td>
</tr>
</tbody>
</table>

**TOTAL** 92 sh
The following courses are required for **special education/mathematics education** students:

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 220 Technology in Teaching and Learning</td>
<td>3 sh</td>
<td></td>
</tr>
<tr>
<td>PSY 321 Educational Psychology</td>
<td>4 sh</td>
<td></td>
</tr>
</tbody>
</table>

Choose one course from the following:

- **CSC 130** Computer Science I
- **PHY 221** University Physics

Four hour course in a related field

| MTH 121 Calculus I          | 4 sh    |                                                |
| MTH 221 Calculus II         | 4 sh    |                                                |
| MTH 231 Mathematical Reasoning | 4 sh |                                                |
| MTH 311 Linear Algebra      | 4 sh    |                                                |
| MTH 312 Abstract Algebra    | 4 sh    |                                                |
| MTH 321 Calculus III        | 4 sh    |                                                |
| MTH 331 Modern Geometry     | 4 sh    |                                                |
| MTH 341 Probability Theory and Statistics | 4 sh |                                                |
| MTH 425 Analysis            | 4 sh    |                                                |
| MTH 361 Seminar I           | 2 sh    |                                                |
| MTH 408 21st Century Technology in Mathematics | 1 sh |                                                |
| MTH 461 Seminar II          | 2 sh    |                                                |
| EDU 302 Explorations Seminar II | 1 sh |                                                |
| EDU 303 Explorations Seminar III | 2 sh |                                                |
| EDU 422 Methods of Teaching Middle Grades and Secondary Math | 4 sh |                                                |
| EDU 481 Student Teaching    | 10 sh   |                                                |

**TOTAL** 93 sh

The following courses are required for **special education/social studies education** students:

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 220 Technology in Teaching and Learning</td>
<td>3 sh</td>
<td></td>
</tr>
<tr>
<td>PSY 321 Educational Psychology</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>HST 111 Europe and the Mediterranean World to 1660</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>HST 112 Europe and the Mediterranean World since 1660</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>HST 121 United States History through 1865</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>HST 123 The U.S. and N.C. Since 1865</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>HST 301 Research Methods</td>
<td>4 sh</td>
<td></td>
</tr>
</tbody>
</table>

One history seminar course

Choose one HST elective at the 300-400 level from the following areas: 12 sh

1. US minority history (African-Americans, Native Americans and Women in the U.S.)
2. Europe
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO</td>
<td>The World’s Regions</td>
<td>4 sh</td>
</tr>
<tr>
<td>POL</td>
<td>American Government</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO</td>
<td>Principles of Economics</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU</td>
<td>Methods of Teaching Middle Grades and Secondary History</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU</td>
<td>Explorations Seminar II</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU</td>
<td>Explorations Seminar III</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

**TOTAL** 96 sh

The following courses are required for special education/science education students:

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 220</td>
<td>Technology in Teaching and Learning 3 sh</td>
</tr>
<tr>
<td>PSY 321</td>
<td>Educational Psychology 4 sh</td>
</tr>
<tr>
<td>BIO 111</td>
<td>Introductory Cell Biology 3 sh</td>
</tr>
<tr>
<td>BIO 112</td>
<td>Introductory Population Biology 3 sh</td>
</tr>
<tr>
<td>BIO 113</td>
<td>Cell Biology Lab 1 sh</td>
</tr>
<tr>
<td>BIO 114</td>
<td>Population Biology Lab 1 sh</td>
</tr>
<tr>
<td>BIO 332</td>
<td>Zoology 4 sh</td>
</tr>
<tr>
<td>BIO 341</td>
<td>Botany 4 sh</td>
</tr>
<tr>
<td>BIO 422</td>
<td>Molecular/Cellular Biology 4 sh</td>
</tr>
<tr>
<td>CHM 111</td>
<td>General Chemistry I 4 sh</td>
</tr>
<tr>
<td>CHM 112</td>
<td>General Chemistry II 4 sh</td>
</tr>
<tr>
<td>CHM 211</td>
<td>Organic Chemistry I 4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following: 4 sh
- BIO 318 Comparative Vertebrate Structure and Function
- BIO 321 Microbiology
- BIO 325 Human Histology
- BIO 350 General Ecology
- BIO 442 Plant Physiology

Select one course from: 4 sh
- CHM 212 Organic Chemistry II
- CHM 341 Inorganic Chemistry
- PHY 102 Astronomy 4 sh
- PHY 103 Introduction to Geology 4 sh
- EDU 424 Methods of Teaching Middle Grades and Secondary Science 4 sh
- EDU 302 Explorations Seminar II 1 sh
- EDU 303 Explorations Seminar III 2 sh
A major in Middle Grades Education consists of the courses necessary to meet the requirements for middle grades (6-9) licensure in the public schools of North Carolina. The following core courses are required of all middle grades majors:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 220</td>
<td>Technology in Teaching and Learning</td>
<td>3 sh</td>
</tr>
<tr>
<td>PSY 321</td>
<td>Educational Psychology</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 211</td>
<td>School and Society</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 315</td>
<td>Educational Assessment</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 323</td>
<td>Literacy Development I: Principles and Practices</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 324</td>
<td>Literacy Development II: Strategies &amp; Instruction for Struggling Readers</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 345</td>
<td>Classroom Management for Elementary, Middle Grades and Special Education Candidates</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 441</td>
<td>Foundations of Middle Level Education</td>
<td>3 sh</td>
</tr>
<tr>
<td>EDU 442</td>
<td>Effective Middle Level Teaching</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 450</td>
<td>Teaching Diverse Learners in Secondary Schools</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 481</td>
<td>Student Teaching</td>
<td>10 sh</td>
</tr>
<tr>
<td>EDU 301</td>
<td>Explorations Seminar I</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU 302</td>
<td>Explorations Seminar II</td>
<td>1 sh</td>
</tr>
<tr>
<td>EDU 303</td>
<td>Explorations Seminar III</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

One subject area concentration 28 sh

**TOTAL 80 sh**

In addition to the core courses, a student majoring in middle grades education must select one subject area concentration from the following:

**Communication skills concentration**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 205</td>
<td>Grammar</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 224</td>
<td>American Literature II</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 250</td>
<td>Interpretations of Literature</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 319</td>
<td>Writing Center Workshop</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 399</td>
<td>Young Adult Literature</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 421</td>
<td>Methods of Teaching Middle Grades and Secondary English</td>
<td>4 sh</td>
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</table>

Choose one course from the following:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 238</td>
<td>African-American Literature before 1945</td>
</tr>
<tr>
<td>ENG 239</td>
<td>African-American Literature since 1945</td>
</tr>
<tr>
<td>ENG 359</td>
<td>African-American Novels</td>
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**Concentration total 28 sh**
### Social studies concentration

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<tr>
<th>Course</th>
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<th>Credits</th>
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<tr>
<td>ECO</td>
<td>111</td>
<td>Principles of Economics</td>
<td>4 sh</td>
</tr>
<tr>
<td>GEO</td>
<td>131</td>
<td>The World’s Regions</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST</td>
<td>112</td>
<td>Europe and the Mediterranean World since 1660</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST</td>
<td>123</td>
<td>The U.S. and N.C. Since 1865</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST</td>
<td>221</td>
<td>The World in the Twentieth Century</td>
<td>4 sh</td>
</tr>
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<td>POL</td>
<td>111</td>
<td>American Government</td>
<td>4 sh</td>
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<tr>
<td>EDU</td>
<td>425</td>
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<td>4 sh</td>
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**Concentration total**: 28 sh

### Mathematics concentration

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<tr>
<td>MTH</td>
<td>121</td>
<td>Calculus I</td>
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</tr>
<tr>
<td>MTH</td>
<td>208</td>
<td>Mathematics for Elementary/Middle Grades Teachers I</td>
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</tr>
<tr>
<td>MTH</td>
<td>209</td>
<td>Mathematics for Elementary/Middle Grades Teachers II</td>
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<tr>
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<td></td>
<td>MTH 212 Statistics in Applications or</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MTH 221 Calculus II</td>
<td></td>
</tr>
<tr>
<td>MTH</td>
<td>310</td>
<td>Mathematics for Secondary Teachers</td>
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<tr>
<td>EDU</td>
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<td>Methods of Teaching Middle Grades and Secondary Mathematics</td>
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**Concentration total**: 28 sh

### Science concentration

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<td>Topics in General Biology</td>
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<td>General Biology Lab</td>
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<tr>
<td>SCI</td>
<td>121</td>
<td>Science Without Borders</td>
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<td>CHM</td>
<td>111</td>
<td>General Chemistry I</td>
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</tr>
<tr>
<td>PHY</td>
<td>102</td>
<td>Introduction to Astronomy</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY</td>
<td>103</td>
<td>Introduction to Geology</td>
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<tr>
<td>PHY</td>
<td>110</td>
<td>Energy and the Environment</td>
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<tr>
<td>EDU</td>
<td>424</td>
<td>Methods of Teaching Middle Grade and Secondary Science</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**Concentration total**: 28 sh

The student planning to teach at the high school level completes a major in a discipline and the necessary professional studies courses for teacher licensure at the secondary level (grades 9-12). Secondary education licensure is available in comprehensive science, English, history/social studies and mathematics. Specific requirements for each program are listed with the appropriate department in this catalog. In general, the following professional studies courses must be satisfactorily completed:
CIS 220 Technology in Teaching and Learning 3 sh
PSY 321 Educational Psychology 4 sh
SOC 243 Sociology of Education 4 sh
EDU 302 Explorations Seminar II 0-1 sh
EDU 303 Explorations Seminar III 2 sh
EDU 315 Educational Assessment 4 sh
EDU 355 Teaching in the 21st Century Classroom 4 sh
Choose an appropriate methods course from the following: 4 sh
   EDU 421 Methods of Teaching Middle Grades and Secondary English
   EDU 422 Methods of Teaching Middle Grades and Secondary Mathematics
   EDU 424 Methods of Teaching Middle Grades and Secondary Science
   EDU 425 Methods of Teaching Middle Grades and Secondary Social Studies
EDU 450 Teaching Diverse Learners in Secondary School 4 sh
EDU 481 Student Teaching 10 sh

TOTAL 39-40 sh

Programs leading to licensure in special subject areas (K-12) level are available in French, music education, physical education and health, and Spanish. Specific requirements for these programs are listed with the appropriate department in this catalog. In general, the following professional studies courses must be satisfactorily completed:

CIS 220 Technology in Teaching and Learning 3 sh
PSY 321 Educational Psychology 4 sh
SOC 243 Sociology of Education 4 sh
EDU 302 Explorations Seminar II 0-1 sh
EDU 303 Explorations Seminar III 2 sh
EDU 315 Educational Assessment 4 sh
EDU 355 Teaching in the 21st Century Classroom 4 sh
Choose one of the following courses: 4 sh
   PEH 423 Physical Education Pedagogy, Grades 6-12
   PEH 427 Health Education Pedagogy, Grades 6-12
   EDU 428 Methods of Teaching Foreign Languages
   MUS 461 Music Education K-12 Methods
EDU 450 Teaching Diverse Learners in Secondary Schools 4 sh
   (not required for physical education majors)
EDU 481 Student Teaching 10 sh

TOTAL 39-40 sh

EDU 211. SCHOOL AND SOCIETY 4 sh
This course is designed to introduce students to the cultural, social, historical, legal and philosophical foundations of education. Students examine critical issues that impact education in the 21st century. An integrated field experience enables students to analyze a variety of perspectives on the purposes of education and instructional practices related to classroom
management, learning environment and meeting the needs of learners who are diverse in
culture, language and ability. Students will develop skills in critical thinking, leadership,
observing, interviewing, reading, writing and oral communications. Offered fall, winter
and spring.

EDU 246. **MATH AND SCIENCE FOR THE EARLY CHILDHOOD EDUCATOR**  4 sh
This course integrates the two primary goals of enhancing students’ personal comfort with
and aptitude for mathematical and scientific concepts and supporting early childhood learn-
ing and application of math and science in everyday contexts. Topics will include concept
acquisition and development including number, measurement, space and hypothesis gener-
ation. Application of mathematical and scientific concepts in various sociocultural contexts
will be emphasized. Offered spring.

EDU 295. **RESEARCH METHODS IN EDUCATION**  4 sh
This course examines the methods used to conduct basic education research. Emphasis is
placed on the use of research in practice-related settings indicative of early childhood to
secondary educators. The course acquaints students with a basic theoretical understanding
of research, practical aspects of conducting research, and ethical and diversity considerations
inherent in the proper implementation of research. Prerequisite: MTH 112 or 212. Offered
spring.

EDU 301, 302, 303. **EXPLORATIONS SEMINARS**  0-2 sh
These courses are inquiry-based seminar courses that are designed to give teacher candi-
dates the necessary knowledge, skills and dispositions to explore issues pertinent to effective
citizenship in general, and education in particular, in the 21st century. The seminars are
organized around four broad, interdisciplinary themes grounded in the liberal arts and
selected as being representative of the major challenges facing citizens of the 21st century:
equity and social justice, aesthetics and creative endeavor, nature and the environment,
global awareness and interdependence.

EDU 310. **ASSESSMENT AND EVIDENCE-BASED PRACTICES FOR INFANTS AND TODDLERS**  8 sh
This course is designed to provide an introduction to curriculum development and assess-
ment for infants and toddlers, both with and without developmental delays. Students will
learn how to plan, implement, and evaluate developmentally appropriate learning envi-
nonments and activities. Emphasis is placed on natural settings (e.g., homes, child care
centers, community settings) and on authentic methods for assessing development (e.g.,
play-based assessment, observation, anecdotal records, rating scales). Students will learn
about evidence-based practices and decision-making for facilitating infant and toddler
development. Special attention will be paid to the role that socio-cultural context plays
in the emergent math and literacy skills of young children. Partnering with families to
promote children’s development is an underlying tenet of this course. Students will be
required to make connections between theory and practice through an associated practi-
cum. Prerequisite: PSY 245, EDU 211, EDU 295. Offered spring.

EDU 311. **PRINCIPLES OF LEARNING AND TEACHING I: LANGUAGE ARTS AND SOCIAL STUDIES METHODS AND MATERIALS**  8 sh
Students learn how to investigate, evaluate and select content, methods and materials used
in organizing and teaching language arts and social studies in elementary school. They
develop appropriate curricula and examine personal beliefs and dispositions. They design
and implement differentiated lessons based on state standards and develop technology-
enhanced, project-based learning units. They gain a sound pedagogical knowledge base,
an understanding of the importance of inquiry and professionalism and have opportunities
to participate in a community of learners. A concurrent practicum offers opportunities to
apply concepts and skills. Prerequisites: EDU 211, PSY 321, CIS 220. Corequisites: EDU
323, 315, 301 and admission to teacher education program. To be taken no earlier than
junior year. Offered fall and spring.
EDU 312. PRINCIPLES OF LEARNING AND TEACHING I: MATHEMATICS AND SCIENCE METHODS AND MATERIALS 8 sh
Students learn how to investigate, evaluate and select content, methods and materials used in organizing and teaching mathematics and science in the elementary school. They develop appropriate curricula and examine personal beliefs and dispositions. They design and implement differentiated lessons based on state standards and develop technology-enhanced, project-based learning units. They gain a sound pedagogical knowledge base, an understanding of the importance of inquiry and professionalism and have opportunities to participate in a community of learners. A concurrent practicum offers opportunities to apply concepts and skills. Prerequisites: EDU 211, MTH 208, 209, PSY 321, CIS 220. Corequisites: EDU 323, 315, 301 and admission to teacher education program. To be taken no earlier than junior year. Offered fall and spring.

EDU 315. EDUCATIONAL ASSESSMENT 4 sh
This course is designed to give students a basic understanding of the purpose, use, and interpretation of educational assessments. Emphasis is placed on classroom assessment – monitoring progress, evaluating student products and performances, and constructing reliable measures of achievements. Consideration is also given to the interpretation and communication of both individual and aggregated assessment results. Prerequisite: EDU 211 or SOC 243, PSY 321. Offered fall and spring.

EDU 322. LITERACY DEVELOPMENT I: PRINCIPLES AND PRACTICES 4 sh
This course involves the study of the fundamental processes by which a child learns to read both linear and nonlinear communication. Attention is given to readiness factors, vocabulary development, word attack, comprehension skills, assessment, writing and reading, interest in reading, the interrelatedness of all areas of the language arts to the reading process, and the integration of technology into the development of literacy. A variety of methodologies and instructional strategies are presented focusing on providing balanced reading instruction to meet diverse student strengths and needs including language experience, phonics, reading for meaning, literature circles, reading workshop, basal book, electronic book discussions, technology projects and monitoring reading progress. Prerequisites: EDU 211, PSY 321 and admission to the teacher education program. Corequisite: EDU 311 or 312. Offered fall and spring.

EDU 324. LITERACY DEVELOPMENT II: STRATEGIES & INSTRUCTION FOR STRUGGLING READERS 4 sh
The focus of this course is on planning and modifying elementary classroom instruction to address the needs of children who, for a variety of reasons, experience difficulty in acquiring basic literacy skills. Emphasis is placed on using assessment of children’s strengths and weaknesses to guide instructional decision making. Students practice administering a variety of diagnostic tools, interpreting the data, and using the information to design and, when warranted, modify instruction. They acquire skills necessary to design explicit, systematic instruction in phonemic awareness, decoding, spelling, reading fluency, vocabulary, reading comprehension and writing. Prerequisites: EDU 211, PSY 321 and EDU 323, admission to the teacher education program. Offered fall and spring.

EDU 332. EARLY CHILDHOOD FAMILY-TEAM PARTNERSHIPS 4 sh
This course explores collaboration with parents and/or other family members with intra- and inter-agency teams as a basic framework to prepare students for leadership roles in the field of early childhood education. The emphasis is on the importance of communication, teaming, and the assimilation of knowledge related to family/community partnerships; issues dealing with diversity; planning, implementing, and evaluating programs for all learners. Offered spring.

EDU 333. SUPPORTING EMOTIONAL AND SOCIAL DEVELOPMENT IN EARLY CHILDHOOD 4 sh
This course will help teachers and practitioners who work on behalf of young children (ages birth through kindergarten) to understand the importance of social and emotional well-being and development. Class sessions will focus on effective classroom methods to prevent emotional and behavioral disorders through the development of healthy social and emotional skills in early childhood learners. Topics such as the development of a positive
self-image; childhood protective factors such as attachment; self-control; initiative; resilience; positive early relationships; and establishing the human connection between self and others will also be explored. Offered spring.

EDU 342. FOUNDATIONS OF SPECIAL EDUCATION  
This course addresses the evolution of the field of special education, its philosophical and theoretical foundations, legal underpinnings, and current trends and controversies. Emphasis is on acquiring a broad knowledge base regarding the characteristics of students with exceptional learning needs and the process and procedures for providing special education. Consideration is given to how issues of human diversity impact families, cultures and schools and how these issues affect delivery of special education services. Prerequisites: EDU 211 or SOC 243 and admission to the teacher education program. Offered fall.

EDU 345. CLASSROOM MANAGEMENT FOR ELEMENTARY, MIDDLE GRADES AND SPECIAL EDUCATION CANDIDATES  
This course focuses on the important aspects of establishing a healthy, positive classroom environment that promotes academic growth as well as social development, for all school-age children and adolescents, including exceptional learners. Prerequisites: EDU 211 and admission to the teacher education program. Offered winter and spring.

EDU 355. TEACHING IN 21ST CENTURY CLASSROOMS  
This course examines critical issues in teaching in the contemporary secondary school, including literacy needs within content area classes and approaches to organizing and managing classroom environments. In order to better understand these and other problems of achievement and behavior, students will use collaborative teacher research methods to begin answering these highly contextualized problems of practice. This course provides an additional lens on the substantial field experience shared with content area methods classes. Prerequisite: SOC 243. Offered fall.

EDU 410. ASSESSMENT AND EVIDENCE-BASED PRACTICES FOR PRESCHOOL AND KINDERGARTEN STUDENTS  
This course develops the knowledge and skills necessary for assessing and teaching a wide range of preschool and kindergarten children, including dual language learners and those with exceptionalities, in preschool and kindergarten. Candidates are taught how to use analysis of assessment outcomes in the design of effective and developmentally appropriate instructional practices. Emphasis is placed on content and integration of curriculum for emergent mathematics, science, social studies and the arts. Methodology, pedagogy, organization of instruction and learning environments, positive child guidance and prescriptive instructional planning are explored while consistently highlighting the role of socio-cultural context in learning. The course will examine state curriculum guides, their relationship to instructional planning and state and local education agencies’ assessments. Practicum is included. Prerequisite: EDU 310. Offered fall.

EDU 411. PRINCIPLES OF LEARNING AND TEACHING II: LANGUAGE ARTS AND SOCIAL STUDIES METHODS AND MATERIALS  
Students learn how to investigate, evaluate and select content, methods and materials used in organizing and teaching language arts and social studies in the elementary school. They develop appropriate curricula and examine personal beliefs and dispositions. Building on knowledge acquired in PLT I, students design and implement integrated technology-enhanced, problem-based learning units, incorporating the elements of Universal Design (UD). National standards provide the context. They gain a more in-depth pedagogical knowledge base, a deeper understanding of the importance of inquiry and professionalism and have additional opportunities to participate in a community of learners. A concurrent practicum offers opportunities to apply concepts and skills. Prerequisite: EDU 312. Corequisite: EDU 302. Offered fall and spring.
EDU 412. PRINCIPLES OF LEARNING AND TEACHING II: MATHEMATICS AND SCIENCES METHODS AND MATERIALS

Students learn to investigate, evaluate and select content, methods and materials used in organizing and teaching mathematics and science in the elementary school. They develop and implement appropriate curricula and examine personal beliefs and dispositions. Building on knowledge acquired in PLT I, students design and implement integrated technology-enhanced, problem-based learning units, incorporating the elements of Universal Design (UD). National standards provide the context. They gain a more in-depth pedagogical knowledge base, a deeper understanding of the importance of inquiry and professionalism and have additional opportunities to participate in a community of learners. A concurrent practicum offers opportunities to apply concepts and skills. Prerequisites: EDU 311 and admission to teacher education program. Corequisite: EDU 302. Offered fall and spring.

EDU 421. METHODS OF TEACHING MIDDLE GRADES AND SECONDARY ENGLISH

In this study of the content and organization of the English curriculum with emphasis on methods and materials used in teaching literature, language skills and composition, students review print and nonprint media, create lesson and unit plans, lead classroom discussions and conduct teaching demonstrations. Public school classroom observation and assistance are required. Prerequisites: EDU 211 or SOC 243, PSY 321. Offered fall semester.

EDU 422. METHODS OF TEACHING MIDDLE GRADES AND SECONDARY MATHEMATICS

Students study the objectives and content of the mathematics curriculum in grades 6-12, including the materials, techniques and methods of evaluation used in teaching mathematics in middle and high school grades. A practicum in the public schools is required. Prerequisites: EDU 211 or SOC 243, PSY 321. Offered fall semester.

EDU 424. METHODS OF TEACHING MIDDLE GRADES AND SECONDARY SCIENCE

Students develop, select and evaluate content, methods and materials used in teaching science at the middle or high school level. Study examines current trends in teaching the natural sciences and addresses safety concerns. Observations and practicum in middle and/or high schools required. Prerequisites: EDU 211 or SOC 243, PSY 321. Offered fall semester.

EDU 425. METHODS OF TEACHING MIDDLE GRADES AND SECONDARY SOCIAL STUDIES

This study of the materials and methods of teaching social studies emphasizes planning, organization, objectives and evaluation. Public school practicum required. Prerequisites: EDU 211 or SOC 243, PSY 321. Offered fall semester.

EDU 428. METHODS OF TEACHING FOREIGN LANGUAGES

This study of the content and organization of the foreign language curriculum in the public schools emphasizes methods and materials used in teaching at all levels (K-12) and covers how teaching the four basic skills and the target culture varies at each level. Students discuss theories of planning, instruction, choice of materials and evaluation, and gain practical experience by participating in a public school classroom. Prerequisites: EDU 211 or SOC 243, PSY 321. Offered fall semester.

EDU 435. ASSESSMENT METHODS AND INTERPRETATION IN SPECIAL EDUCATION

This course provides teacher candidates with knowledge required to design assessment plans for students with exceptional learning needs. Consideration is given to legal policies and ethical principles in regard to the administration and interpretation of assessment procedures. Candidates learn to evaluate standardized assessment instruments in terms of reliability, validity and adequacy of norm sample and to collaborate with families and other professionals to gather information and share assessment results. Prerequisites: EDU 211 or SOC 243, admission to the teacher education program. Offered spring.

EDU 441. FOUNDATIONS OF MIDDLE LEVEL EDUCATION

This course provides a foundation for middle level (6-9) education majors with concentrations in math, science, social studies and language arts. The course explores the unique physical, intellectual, social and personal characteristics of the young adolescent (age 10-14) with implication for curriculum development and instruction. Emphasis is on young adolescent learning needs, middle school philosophy and organization, classroom diversity
with emphasis on students with limited English proficiency, responsive curriculum design and scholarly research related to issues of diversity, access to learning, and literacy; management of the learning environment; and professional leadership. Prerequisites: EDU 211, admission to the teacher education program. Offered spring.

EDU 442. EFFECTIVE MIDDLE LEVEL TEACHING 4 sh
This course is designed for middle grades majors (6-9) with concentration areas in math, science, social studies and language arts. The course builds upon and extends the foundational experiences in EDU 441 through in-depth exploration of theory as related to young adolescent learning; focused inquiry, collaboration and teaching on middle level interdisciplinary teams; service learning instructional design; scholarly research related to issues of diversity, access to learning, and literacy; and management of the learning environment and professional leadership. Prerequisite: EDU 441. Offered fall.

EDU 444. LANGUAGE AND LITERACY METHODS IN SPECIAL EDUCATION 4 sh
In this course, teacher candidates become familiar with the theory and research base on effective instructional techniques for children with exceptional learning needs. They learn how to apply specific methods that involve explicit, systematic and intensive instruction to help children with learning difficulties acquire foundational skills in reading and language arts. Candidates learn to use curriculum-based assessment as a basis for planning, monitoring and modifying instruction. Prerequisites: EDU 211 or SOC 243, admission to the teacher education program. Offered fall.

EDU 445. TEACHING/LEARNING STRATEGIES IN MATHEMATICS AND CONTENT AREAS FOR SPECIAL EDUCATORS 4 sh
This course focuses on effective teaching and learning strategies for adolescents with mild to moderate learning needs. The course emphasizes strategies that reflect a cognitive/ metacognitive instructional approach to learning. Consideration is given to the use of technology as a tool for learning and to the assessment of strategy effectiveness by monitoring student progress. Teacher candidates learn to consider learning environments, cultural, linguistic and socioeconomic factors in addition to student abilities in their selection and use of strategies. Prerequisites: EDU 211 or SOC 243 and admission to the teacher education program. Offered fall.

EDU 450. TEACHING DIVERSE LEARNERS IN SECONDARY SCHOOLS 4 sh
This course is designed to prepare middle grades and secondary teacher candidates to work effectively in today’s increasingly inclusive and diverse classrooms, providing historical, philosophical and practical approaches to issues surrounding five diversities: (1) racial, cultural and ethnic, (2) linguistic, (3) socioeconomic, (4) gender and (5) (dis)ability. A 30-hour field placement in a diverse secondary classroom provides real world experience for students to wrestle with assumptions, theories and data about how diversity impacts educational opportunity and student achievement. Prerequisite: SOC 243.

EDU 451. TEACHING DIVERSE LEARNERS 4 sh
This course is designed to prepare elementary teacher candidates to work effectively in inclusive classrooms. Candidates gain historical and philosophical perspective to effectively instruct students from diverse racial/ethnic backgrounds, religions, genders and abilities. Candidates gain knowledge of the Exceptional Children’s (EC) referral process and the skills to effectively teach EC and other diverse groups. Elementary education majors only. Prerequisites: EDU 211, admission to the teacher education program.

EDU 454. EARLY CHILDHOOD LANGUAGE AND LITERACY 4 sh
This course is a study of language and literacy development for a wide range of children, including dual language learners and those with exceptionalities. Emphasis is placed on scientific research and developmental theories for language acquisition and literacy learning and the relationship between oral language and the reading and writing process from birth through kindergarten. Prevention of reading difficulties is reviewed in detail. Prominence is given to cognitive and socio-cultural perspectives of literacy learning. Students will learn to integrate language and literacy into the curriculum in authentic ways. Offered fall.
EDU 455. EARLY CHILDHOOD EXCEPTIONALITY 4 sh
This course provides students with a general overview of special education for young children. Topics include assessment procedures, referral processes, legislation, and service delivery models. Students will learn the characteristics of various disabilities and research-based intervention practices in inclusive and separate settings. The importance of a family systems approach for educating young children will be explained, with special emphasis on serving families from culturally, ethnically, and linguistically diverse backgrounds. Offered fall.

EDU 467. EARLY CHILDHOOD RESEARCH, POLICY AND PRACTICE 4 sh
This course will focus on connecting the science of early childhood development with real world application of program design and implementation. It includes an analysis of how federal, state and local policies impact early childhood programs and acquaints students with the advocacy process as a means to influence policy decisions based on the science of early development. Offered winter.

EDU 481. STUDENT TEACHING 10 sh
Teacher candidates experience the classroom full time for one semester, with periodic conferences with the university supervisor(s) and classroom teacher(s). The student becomes acquainted with the duties and observes the methods and activities of an experienced teacher, with gradual induction into full-time teaching responsibilities. Prerequisites: EDU 211 or SOC 243 and grade(s) of C or better in appropriate methods course(s). Corequisite: EDU 303. Offered fall and spring.

EDU 499. RESEARCH 1-4 sh
Students engage in undergraduate research under the direction of an education department faculty member. Maximum of eight semester hours total credit. Prerequisites: Eligibility as determined by the undergraduate research guidelines of Elon University and approval by the department.

Elon College Fellows Program
Program Director: Associate Professor N. Harris
Director of Arts and Humanities Fellows: Assistant Professor Gatti
Director of Mathematics and Natural Sciences Fellows: Professor T. Lee
Director of Social Sciences Fellows: Associate Professor Mould

Elon College Fellows is a four-year program for qualified, selected students who are passionate about the arts and sciences. The program is constructed to provide students with both breadth and depth of study within the arts and sciences. The breadth is an extended exposure to and immersion in the different “ways of knowing” offered by the three traditional branches of arts and sciences. The depth is achieved through a two-year research project in the student’s major supervised by a faculty mentor. For more information about Elon’s Fellows Programs, see www.elon.edu/fellows.

The following courses are required of and restricted to students admitted to the Elon College Fellows program.

ECF 111. PATHS OF INQUIRY IN THE ARTS AND SCIENCES 4 sh
This course is an exploration of the three branches of the arts and sciences. The focus in this team taught class is on exploring the various ways that these branches construct knowledge, learning to ask interesting questions appropriate to the arts and sciences and gaining an appreciation of the powerful applications of these disciplines. Course includes a five-day trip to Washington, D.C. Prerequisite: Elon College Fellows status. Required of all first year.
**Elon College Fellows. Offered in Winter Term.**

**ECF 211, 212, 213. ELON COLLEGE FELLOWS SOPHOMORE SEMINAR**  
This course exposes students to the disciplines that comprise each branch of the arts and sciences. The course is team-taught and the focus is on becoming familiar with the kinds of questions that each discipline addresses as well as the tools, resources and paradigms used by each field to seek answers. Fellows enroll in the section that most closely matches the student's academic major. Prerequisite: Elon College Fellows status. One seminar is required of all sophomore Elon College Fellows. Offered fall.

**ECF 311, 312, 313. ELON COLLEGE FELLOWS JUNIOR SEMINAR**  
This course provides an intellectual and collaborative framework within which third-year Elon College Fellows develop a discipline-specific Fellows project question and proposal. Fellows work outside of class with their individual faculty mentors and present, share and critique ideas in the seminar class. A formal project proposal including literature review, methods and budget is the expected outcome. Fellows enroll in the section that most closely matches the student's academic major. Prerequisites: Elon College Fellows status, junior status and ECF 211, 212 or 213. Corequisite: Students must co-register for at least one hour of departmental 499. Fellows take this course in the fall of the junior year. Offered fall.

**Engineering**

**Director:** Associate Professor D’Amato  
**Assistant Professor:** Hargrove-Leak

Engineers have the opportunity to be of profound service to humanity. Engineering means problem solving. Through the application of mathematics and science, an engineer may be solving problems dealing with energy, space exploration, environmental issues, product manufacturing, construction or any number of interesting areas of study. Possible engineering disciplines include aerospace engineering, biomedical engineering, chemical engineering, civil engineering, computer engineering, electrical engineering, environmental engineering, industrial engineering, materials science engineering, mechanical engineering, nuclear engineering and textile engineering.

The unique dual-degree engineering programs at Elon support students in working toward two degrees: one from Elon and one from an engineering university. Elon currently has affiliations with North Carolina State University, Georgia Tech, Pennsylvania State University, Virginia Tech, Columbia University, University of Notre Dame, Washington University in St. Louis, University of South Carolina and North Carolina A&T State University.

The student will complete three years at Elon. These years will include a full array of science, mathematics, computer science and General Studies courses along with their discipline-specific courses. Also included will be foundational engineering courses every fall and spring taught by engineering faculty. After finishing these three years at Elon and also satisfying the entry requirements of the affiliate engineering university, the student will transfer to this engineering institution, normally for two more years. Upon completion of these years of study, a student will receive a Bachelor of Science degree from the engineering school in an area of choice. Students will also receive either a B.S. degree from Elon in Engineering Physics, Engineering Mathematics, Environmental Science/Environmental Engineering or Bio-Physics/Biomedical Engineering or a Bachelor of Arts degree in Chemistry/Chemical Engineering or Computer Science/Engineering. Students must complete Elon’s General Studies program requirements, the engineering core and one of the six options listed below.
**All dual-degree engineering programs require the following core courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>SH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 111</td>
<td>General Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 112</td>
<td>General Chemistry II</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 221</td>
<td>University Physics I</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 222</td>
<td>University Physics II</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 221</td>
<td>Calculus II</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 321</td>
<td>Multivariable Calculus and Analytic Geometry</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 421</td>
<td>Differential Equations</td>
<td>4 sh</td>
</tr>
<tr>
<td>CSC 130</td>
<td>Computer Science I</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**Total Core Courses** 36 sh

**The programs also require the following engineering foundations courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>SH</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 103</td>
<td>Challenges in Engineering</td>
<td>4 sh</td>
</tr>
<tr>
<td>EGR 206</td>
<td>Engineering Mechanics - Statics</td>
<td>3 sh</td>
</tr>
<tr>
<td>EGR 208</td>
<td>Engineering Mechanics - Dynamics</td>
<td>3 sh</td>
</tr>
</tbody>
</table>

Choose at least two of the following three courses: 8 sh

- EGR 211/212 Circuit Analysis/Lab
- EGR 306 Mechanics of Solids
- EGR/PHY 310 Engineering Thermodynamics

**Total Foundation Courses** 18 sh

The student will then select one of the following six options:

**I. Engineering Physics** 16 sh

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 314</td>
<td>Modern Physics</td>
</tr>
</tbody>
</table>

Choose one course from the following:

- PHY 401 Classical Mechanics
- PHY 403 Electrodynamics I
- PHY 397-98 Research Methods I and II

Four semester hours of PHY at the 300-400 level (excluding PHY 305)

**II. Engineering Mathematics** 24 sh

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 231</td>
<td>Mathematical Reasoning</td>
</tr>
<tr>
<td>MTH 311</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MTH 312</td>
<td>Abstract Algebra</td>
</tr>
<tr>
<td>MTH 341</td>
<td>Probability Theory and Statistics</td>
</tr>
<tr>
<td>MTH 415</td>
<td>Numerical Analysis</td>
</tr>
<tr>
<td>CSC 230</td>
<td>Computer Science II</td>
</tr>
</tbody>
</table>
III. Computer Science/Engineering  
Choose one course from the following:
- MTH 206 Discrete Structures
- MTH 231 Mathematical Reasoning
- CSC 230 Computer Science II
- CSC 330 Computer Science III
- CSC 331 Algorithm Analysis
- CSC 342 Computer Systems
- CSC 442 Mobile Computing

IV. Chemistry/Chemical Engineering  
CHM 211 Organic Chemistry I
CHM 212 Organic Chemistry II
CHM 311 Quantitative Analysis
CHM 332 Physical Chemistry I
CHM 341 Inorganic Chemistry I
CHM 464* Senior Seminar
*May be taken at engineering school

V. Environmental Science/Environmental Engineering  
Environmental Science/Environmental Engineering Core Courses
ENS 111/113 Introduction to Environmental Science w/ Lab
ENS 200 Strategies for Environmental Inquiry
CHM 211 Organic Chemistry I w/ Lab
MTH 341 Probability and Statistics
Ecological Processes (select one)
- BIO 215 Diversity of Life
- BIO 335 Field Biology
- ENS 320 Restoration Ecology
- ENS 330 Wildlife Ecology
Social Sciences and Humanities (select two)
- POL 224 Environmental Policy and Law
- POL 322 State Environmental Policy and Administration
- POL 344 International Environmental Policy
- SOC 334 Environmental Sociology
- ENG 318 Science Writing
- ENG 339 American Environmental Writers
- COM 331 Environmental Communications
- ART 339 Ecological Art
- GIS 250* Introduction to Geographical Systems
*May be taken at engineering school
VI. Bio-physics/Biomedical Engineering

**EGR 103. CHALLENGES IN ENGINEERING**
4 sh
This two-semester course focuses on two major projects: a team project in design and fabrication that is completed in fall and a service-learning class project that is completed in the spring. Fundamental engineering concepts and practices will be incorporated in and around the completion of these core projects. These include engineering disciplines, the history of engineering, the design process, problem solving techniques, computer graphics, ethics and professional requirements. Students must take both semesters. Offered fall and spring. No prerequisites.

**EGR 206. ENGINEERING MECHANICS - STATICS**
3 sh
This course is designed to introduce students to the effects of forces on bodies in static equilibrium and to familiarize them with mathematical techniques for finding reactive forces in bodies, frames, mechanics and trusses. Concepts covered include forces, moments, couples, equilibrium of rigid bodies, centroids, moments of inertia and friction resistance. Prerequisite: PHY 113. Corequisite: MTH 221. Offered fall.

**EGR 208. ENGINEERING MECHANICS - DYNAMICS**
3 sh
Kinematics and kinetics of particles in rectangular, cylindrical and curvilinear coordinate systems; energy and momentum methods for particles; kinetics of systems of particles; kinematics and kinetics of rigid bodies in two and three dimensions; and motion relative to rotating coordinate systems are studied. Prerequisites: EGR 206 and MTH 221. Corequisite: MTH 321. Offered spring.

**EGR 211. CIRCUIT ANALYSIS**
3 sh
This course is an introduction to the theory, analysis and design of electric circuits. Studies include circuit parameters and elements: voltage, current, power, energy, resistance, capacitance, inductance. Also included is the application of Kirchhoff’s laws, techniques of circuit analysis, the op-amp, the responses of R-L, R-C and R-L-C circuits, an introduction to sinusoidal steady-state analysis, Laplace transforms and Fourier series. Prerequisites: MTH 421 and PHY 114. Corequisite: EGR/PHY 212. Offered in a three semester sequence with EGR 306 and EGR 310.

**EGR 212. CIRCUIT ANALYSIS LAB**
1 sh
This course involves laboratory application of concepts and principles discussed in EGR 211. Corequisite: EGR/PHY 211.

**EGR 306. MECHANICS OF SOLIDS**
4 sh
This course focuses on elementary analysis of deformable solids subjected to force systems. Concepts covered include stress and strain (one-, two-, and three-dimensional stress-strain relationships for the linear elastic solid); statically determinate and indeterminate axial force, torsion and bending members; stress transformations; pressure vessels; and combined...
loadings. There is also an introduction to column buckling. Prerequisite: EGR 206 and MTH 321. Offered in a three semester sequence with EGR 211 and EGR 310.

**EGR 310. ENGINEERING THERMODYNAMICS**  
4 sh

This course introduces the concept of energy and the laws governing the transfers and transformations of energy. Study emphasizes thermodynamic properties and First and Second Law analysis of systems and control volumes. Integration of these concepts into the analysis of basic power cycles is introduced. Prerequisites: MTH 421 and PHY 114. Offered in a three semester sequence with EGR 211 and EGR 306.

**EGR 381. INTERNSHIP IN ENGINEERING**  
1-4 sh

The internship provides advanced work experiences in some aspect of engineering. It is offered on an individual basis, under the guidance of the engineering program director, when suitable opportunities can be arranged. It will typically be taken in the summer of the sophomore year. This experience will broaden the practical work experience of the student and enhance his/her classroom abilities. Prerequisite: Permission of the department. Offered summer.

**English**

**Chair:** Professor Boyle  
**Professors:** Braye, Gill, Haskell, Lyday-Lee, Peeples, Schwind, Warman  
**Associate Professors:** C. Anderson, Gordon, Hairston, Layne, Isaac, Kircher, Moore, Myers, Perry, Ramirez, Rosinski  
**Assistant Professors:** Pope-Ruark, Proudfit, Pyne  
**Lecturers:** Hlavaty, Lee, Patch, Strickland, Trim

Studies in English include literature, language and writing, as well as the practice of literary criticism and analysis, creative writing, rhetoric and the teaching of English in secondary schools. The English curriculum encourages majors to follow their talents and interests by focusing their studies in one of four distinct concentrations: literature, professional writing and rhetoric, creative writing or English teacher licensure. Additional options include double concentrations in the major and minors in literature and creative writing, along with interdisciplinary minors in professional writing and multimedia authoring. Students interested in the major have many opportunities to enrich their studies through internships, undergraduate research, study abroad, residential-learning, student-run publications and organizations.

Students with degrees in English pursue a variety of graduate studies and careers. Many Elon English majors proceed to postgraduate studies in English, creative writing, library science, journalism, education, law and other disciplines. Others move straight into professional careers in writing, editing, technical writing, business management, corporate communications, advertising, public relations, journalism and teaching.

**A NOTE ON THE GENERAL STUDIES LITERATURE COURSE REQUIREMENT**

With the exception of film studies courses, ENG 200 and ENG courses in the 220-79 and 320-79 range normally fulfill the General Studies literature requirement in Studies in Arts and Sciences.

English department courses in the 201-19 and 301-19 range (i.e., courses in language study, writing and creative writing) do NOT normally fulfill that requirement.
A major in English requires 44 semester hours. Professional Writing and Rhetoric requires 48 semester hours. English with teaching licensure requires 84 semester hours. The core requirements, above ENG 110, include the following:

An ENG 200-level literature course  
Majors in literature concentration must choose a survey course from ENG 221-24  
Majors in English teacher licensure concentration must choose either ENG 221 or 222

An ENG 200-level or above writing course (ENG 210-19; 310-19)  
Majors in creative writing concentration must take ENG 213: Introduction to Creative Writing  
Majors in teacher licensure concentration must take ENG 219: Writing Studies Survey

An ENG 200-level or above language studies course (ENG 201-09; 301-09)  
Majors in professional writing and rhetoric concentration must take ENG 304: Understanding Rhetoric  
Majors in teacher licensure concentration must take ENG 205: Grammar

One 300-level literature course  
Majors in teacher licensure concentration must take ENG 363: Teaching Literature

One 300-level English course, preferably outside one’s concentration  
ENG 302: History of the English Language or ENG 321: Classical Literature is strongly recommended for majors in teacher licensure.

**TOTAL** 20 sh

Students must also complete one of the following concentrations:

**Literature concentration**

Core Courses 20 sh

One additional survey course from ENG 221-24 4 sh

Four additional 200-300-level literature courses chosen from at least 3 of the following categories: 16 sh

- Historical studies (ENG 320-29)
- Cultural studies (ENG 330-39)
- Author studies (ENG 340-49)
- Genre studies (ENG 350-59)
- Critical practice and theory (ENG 200, 250, 333, 362)

ENG 495 Senior Seminar: Literature 4 sh

Other requirements:

- At least one literature course must have a global/multicultural designation
- At least two literature courses must have a pre-1800 designation
- At least 20 hours of literature must be at the 300-level or above
- A course may satisfy multiple requirements if possible.

**TOTAL** 44 sh
<table>
<thead>
<tr>
<th>Global/ Multicultural</th>
<th>Pre-1800</th>
<th>Author</th>
<th>Genre</th>
<th>Historical</th>
<th>Cultural</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 231</td>
<td>ENG 221</td>
<td>ENG 341</td>
<td>ENG 351</td>
<td>ENG 321</td>
<td>ENG 330</td>
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<td>ENG 238</td>
<td>ENG 321</td>
<td>ENG 342</td>
<td>ENG 352</td>
<td>ENG 322</td>
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<td>ENG 239</td>
<td>ENG 322</td>
<td>ENG 343</td>
<td>ENG 353</td>
<td>ENG 323</td>
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<td>ENG 321</td>
<td>ENG 323</td>
<td>ENG 344</td>
<td>ENG 354</td>
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<td>ENG 331</td>
<td>ENG 324</td>
<td>ENG 345</td>
<td>ENG 355</td>
<td>ENG 325</td>
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<td>ENG 327</td>
<td>ENG 348</td>
<td>ENG 356</td>
<td>ENG 326</td>
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<td>ENG 357</td>
<td>ENG 327</td>
<td>ENG 337</td>
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<td>ENG 341</td>
<td>ENG 359</td>
<td>ENG 328</td>
<td>ENG 338</td>
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<td>ENG 338</td>
<td>ENG 342</td>
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<td></td>
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<tr>
<td>ENG 359</td>
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</tbody>
</table>

**Professional writing and rhetoric concentration**

Core Courses  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 215</td>
<td>Introduction to Professional Writing and Rhetoric</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 282</td>
<td>CUPID Studio</td>
<td>2 sh</td>
</tr>
<tr>
<td>ENG 381</td>
<td>Professional Writing and Rhetoric Internship</td>
<td>2 sh</td>
</tr>
<tr>
<td>ENG 397</td>
<td>Writing as Inquiry</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 313</td>
<td>Special Topics in Professional Writing and Rhetoric</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one concentration elective from each of the following:  

- A 200-level PWR course (ENG 206, 211, 212, 217, 219)  
- A 300/400-level PWR course (ENG 310, 311, 312, 318, 319, 415)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 497</td>
<td>Senior Seminar: Professional Writing and Rhetoric</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

**TOTAL**  

48 sh

**Teacher Licensure concentration**

Core Courses  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ENG 206</td>
<td>Introduction to TESOL</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENG 223, 224, 238 or 239 (American Literatures)</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>ENG 331, 335, 337 or 338 (World Literatures)</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>ENG 319</td>
<td>Writing Center Workshop</td>
<td>4 sh</td>
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<tr>
<td>ENG 342</td>
<td>Shakespeare</td>
<td>4 sh</td>
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<tr>
<td>ENG 495</td>
<td>Senior Seminar: Literature</td>
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A 300-level ENG elective  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>4 sh</td>
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</tbody>
</table>

Set of Professional Courses  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>40 sh</td>
</tr>
</tbody>
</table>

**TOTAL**  

84 sh
Creative writing concentration

Core Courses 20 sh

Choose two of the following: 8 sh

ENG 315 Intermediate Creative Writing: Nonfiction
ENG 316 Intermediate Creative Writing: Poetry
ENG 317 Intermediate Creative Writing: Fiction

Choose two of the following: 8 sh

ENG 366 Contemporary Writers
ENG 351 The Novel
ENG 353 Poetry
ENG 354 The Short Story
ENG 356 Nonfiction

300-level or above literature course
ENG 414 Special Topics in Creative Writing

Choose one of the following: 4 sh

ENG 413 Advanced Creative Writing
200-400-level English elective

ENG 496 Senior Seminar: Creative Writing 4 sh

TOTAL 44 sh

Double concentrations

Students are encouraged to pursue a double concentration, either to combine liberal arts and pre-professional training (creative writing/professional writing or literature/professional writing) or to study the interconnectedness of writing and reading (literature/creative writing). Completing a dual concentration in English requires a capstone experience in each concentration. For more information, see your English major advisor or the English department chair.

A minor in English requires the following courses above ENG 110. (Students may choose either a literature minor or one of the writing minors):

Literature minor

One critical theory and practice course selected from the following: 4 sh

ENG 200 Critical Conversations in Literary Studies
ENG 250 Interpretations of Literature
ENG 333 Women in Literature: Feminist Approaches
ENG 362 Film Criticism

One ENG elective 4 sh

Three additional ENG literature courses, at least one of which must be designated pre-1800 12 sh

At least 8 semester hours of literature courses must be at the 300-level or above.

TOTAL 20 sh
Creative writing minor

ENG 213 Introduction to Creative Writing 4 sh

Choose two or three of the following: 8-12 sh

ENG 315 Intermediate Creative Writing: Nonfiction
ENG 316 Intermediate Creative Writing: Poetry
ENG 317 Intermediate Creative Writing: Fiction

Choose one or two of the following: 4-8 sh

ENG 366 Contemporary Writers
Genre courses (ENG 351-356)
ENG 413 Advanced Creative Writing
ENG 414 Special Topics in Creative Writing

TOTAL 20 sh

Professional Writing minor: See Professional Writing Studies

Multimedia Authoring minor: See Multimedia Authoring

ENG 100. SUPPLEMENTAL WRITING WORKSHOP 4 sh

This writing workshop focuses on invention, organization, drafting, revision and editing strategies. Its curriculum is tailored to support the work done in ENG 110 so that the student has the best possible chance for success in College Writing. Co-requisite: ENG 110. Elective credit only. Offered fall.

ENG 110. COLLEGE WRITING 4 sh

In this first-year course emphasizing invention, peer response, revising and editing, students learn to develop and make assertions, support them with appropriate evidence and present them in public form. Students also learn that the style and content of their writing will affect their success in influencing audiences. A grade of “C-” or better required for graduation. Offered fall and spring.

ENG 115. ONE-ON-ONE WRITING 4 sh

Students work with the professor to create an individual plan for improving writing skills. The class is open to students at all levels but does not satisfy General Studies requirements or replace ENG 110. By permission of instructor and ENG 110 coordinator. Offered Winter Term.

ENG 200. CRITICAL CONVERSATIONS IN LITERARY STUDIES 4 sh

This course develops the research and writing skills that are essential for producing informed, independent and original literary criticism. Students will learn not only how to evaluate and synthesize the arguments of published critics and theorists, but also how to enter and extend critical arguments or conversations about selected works of literature by advancing interpretations and theories of their own. This course can satisfy either a writing OR a literature requirement within the English major.

ENG 205. GRAMMAR 4 sh

This study of the English language includes the evolution of prescriptive and descriptive grammars, terminology, parts of speech and function, grammatical structures and correct usage of standard written English. Prerequisite: ENG 110. Offered spring.

ENG 206. INTRODUCTION TO TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES 4 sh

This course will provide an introduction to second language acquisition and the theory and practice of teaching English to speakers of other languages (TESOL). Readings, class
discussions and projects will focus on pedagogy and assessment in reading, writing, listening and speaking for ESL students. Prerequisite: ENG 110. Offered fall of even years.

ENG 211. STYLE AND EDITING 4 sh

This course explores theories and processes of editing in professional writing and discusses the profession of editing: what it is that professional editors do, what it takes to become an effective editor, what the editorial process looks like (from acquisitions editing to indexing) and the effects of technology. Students will explore sectors in which editors might find themselves working and will learn about and practice substantive editing, stylistic editing, copy editing and proofreading. Prerequisite: ENG 110.

ENG 212. MULTIMEDIA RHETORICS 4 sh

This course provides students with the theoretical and practical background necessary to approach the design of interfaces from a user’s perspective and as a reflective practice. The students will also develop a rhetorical foundation for analyzing and producing primarily screen-based interfaces. The course emphasizes a process-oriented approach to design wherein design includes rigorous and disciplined attention to planning, research, revision and production. Moreover, students learn to focus on design from a rhetorical perspective, one that balances writers’ goals, users'/readers’ needs and text design possibilities. Prerequisite: ENG 110. Offered spring of odd years.

ENG 213. INTRODUCTION TO CREATIVE WRITING 4 sh

For this workshop, students interested in writing poems, essays and short stories may be assigned additional texts for discussion of technique or form. Prerequisite: ENG 110. Offered fall and spring.

ENG 214. CREATIVE WRITING: POETRY READING/Writing 4 sh

Along with readings of 20th century British, Irish and American poetry, students from all levels spend equal amounts of time discussing their own and others' poems. This class also includes reading quizzes, writing journals and poetry assignments. Prerequisite: ENG 110.

ENG 215. INTRODUCTION TO PROFESSIONAL WRITING AND RHETORIC 4 sh

This course is designed to introduce students to the study and practice of professional writing from the perspective of rhetoric, one of the oldest liberal arts. Students will learn about the wide range of possibilities connected to the broad term “professional writing,” understand what assuming a rhetorical perspective on writing means; gain a broad sense of the issues, topics and practices that mark the field of professional writing and rhetoric; become part of the ongoing conversations that make up the field; understand professional writing and rhetoric as a socially situated art and practice; gain some practical, hands-on experience through a variety of professional writing projects and integrate scholastic research into reflective professional practice. Prerequisite: ENG 110. Offered fall.

ENG 217. WRITING TECHNOLOGIES 2 sh

This course is designed to provide all liberal arts students with an introduction to and familiarity with the writing software packages that are commonly considered the primary tools of communication in the professional world. We will both critique these tools, their strengths and limitations, as well as gain facility with their use through hands-on practice. Programs covered include advanced uses of Word, image manipulation with Photoshop, web design with Dreamweaver, Fireworks, Flash, and page layout with Quark. Prerequisite: ENG 110.

ENG 219. WRITING STUDIES SURVEY 4 sh

This course examines theories of composition and literacy and explores the implications for our understanding of writing’s impact on our personal, public and professional lives. Students will study topics such as writing pedagogy (writing as a process, peer response, editing, revision, response and assessment); the relationship between writing and literacy; writing and testing; writing and electronic texts; various technologies’ effect on the production and style of writing; and the political, social and cultural politics of writing. Prerequisite: ENG 110. Offered fall of odd years.
ENG 221. BRITISH LITERATURE I 4 sh
This study of British literature in its social and cultural contexts emphasizes the close reading of texts from the Anglo-Saxon, Medieval and Renaissance periods through the Enlightenment. Satisfies departmental pre-1800 requirement. Offered fall and spring.

ENG 222. BRITISH LITERATURE II 4 sh
This study of British literature in its social and cultural contexts — from the Romantic, Victorian and Modernist periods through the present — emphasizes the close reading of texts representing the diversity of modern British literary expression. Offered fall and spring.

ENG 223. AMERICAN LITERATURE I 4 sh
This study of American literature in its social and cultural contexts — from Colonial and Revolutionary periods through the Romantic period — emphasizes the close reading of texts to examine American literary culture from its origins to the post-Civil War era. Offered fall and spring.

ENG 224. AMERICAN LITERATURE II 4 sh
This study of American literature in its social and cultural contexts — from the post-Civil War era, Progressive and Modernist periods up to the present — involves close reading of selected texts to stress the expansion of the American literary canon. Offered fall and spring.

ENG 231. INTRODUCTION TO WORLD LITERATURE 4 sh
This course provides an introduction to the study of selected works from European, Asian, African and Latin American literatures (in English translation) with emphasis on literary traditions and genres. Satisfies the departmental global/multicultural requirement. Offered spring of alternate years.

ENG 238. AFRICAN-AMERICAN LITERATURE BEFORE 1945 4 sh
This course traces the development of the themes of protest, accommodation and escapism found in the fiction, poetry and drama of African-American writers before 1945. This course satisfies the departmental global/multicultural requirement. Offered fall of alternate years.

ENG 239. AFRICAN-AMERICAN LITERATURE SINCE 1945 4 sh
An examination of works by major African-American writers since 1945 focuses on making connections among writers. This course satisfies the departmental global/multicultural requirement. Offered spring of alternate years.

ENG 250. INTERPRETATIONS OF LITERATURE 4 sh
This course employs different critical approaches to interpret and evaluate poetry, drama and fiction from a variety of cultures. Offered fall and spring.

ENG 251. ENGLISH STUDIES IN BRITAIN 4 sh
A study-tour based in London emphasizes the theatre and places of literary and cultural importance. The course includes excursions to such places as Stratford-upon-Avon, Stonehenge and Canterbury. This course satisfies the General Studies literature requirement. Winter Term only.

ENG 255. TOPICS IN LITERATURE 4 sh
This course introduces students to several different genres of literature and explores a particular theme (e.g., Renaissance Witchcraft on Stage, Technology in Literature, Utopian Literature and Literature of the Holocaust). Especially recommended for students who are not English majors, this course fulfills the General Studies literature requirement. May be repeated only to replace a failing grade. Offered fall and spring.

ENG 266. LITERATURE OF TERROR AND THE SUPERNATURAL 4 sh
A study of the elements of terror and the supernatural in selected literary works that are designed to inspire fear. Representative authors include Samuel Taylor Coleridge, Edgar Allan Poe, Henry James and Stephen King. Extensive use of videos. Offered Winter Term.
ENG 282. CUPID STUDIO  
2 sh
Students will implement writing, publishing and multimedia projects for themselves and local clients. This workshop-style course provides intensive practice in rhetorical strategies, audience assessment, research about writing, editing, publishing, visual rhetoric and design, and project management. Repeatable up to eight hours; students may count four hours toward their PWR electives. Prerequisite: ENG 110. No credit toward General Studies requirements.

Language Studies
This selection of courses centers around studies in the structure and historical development of the English language and in the theory of rhetoric and composition.

ENG 302. HISTORY OF THE ENGLISH LANGUAGE  
4 sh
This study traces the historical development of the English language from its Indo-European origins to the present. Prerequisite: ENG 110. Offered fall of odd years.

ENG 303. LINGUISTICS  
4 sh
Linguistics is the study of the systems of language, including the phonology, morphology, semantics and varieties (social and regional) of the English language. Prerequisite: ENG 110. Offered fall of even years.

ENG 304. UNDERSTANDING RHETORIC  
4 sh
This course surveys the history and theories of rhetoric, one of the oldest disciplines, for centuries promoted as one of the primary liberal arts and long understood as crucial to the development of effective citizens and leaders for democratic life. Students will explore the dynamic and culturally influenced history of rhetoric, gain an understanding of diverse rhetorical theories, and examine such issues as the scope of rhetoric, its functions, its processes and the ways it is associated with other disciplines. Prerequisite: ENG 110. Offered spring.

ENG 305. AMERICAN ENGLISH  
4 sh
This course examines the development of American English from the 16th-century influences of Jamestown and Massachusetts settlers to Creoles developing along the Mexican border and in Florida. Study includes regional and social varieties of English, phonetics and literature that employs dialects. Prerequisite: ENG 110.

Advanced Writing
Courses in this group are specifically designed to provide practice in different kinds of writing beyond the introductory level.

ENG 310. INTERNATIONAL RHETORICS  
4 sh
This course examines how professional writing and rhetoric are affected by the cultural and social expectations of international communities. In addition to investigating and comparing examples of the discourse expectations for texts produced in several international contexts, the course will explore the growing use of English as a language of international business and politics and will examine the language’s impact on the rhetorical situations in which it is used. Prerequisite: ENG 110.

ENG 311. PUBLISHING  
4 sh
This course is designed as an extended, hands-on exploration of collaborative writing and its relationship to professional writing. Students read, think and write about the theories and practices of collaborative learning and writing, while studying how those theories relate to the roles we assume as professional writers. Students will develop an understanding of collaborative writing as a complex social, political and rhetorical act; and will strive to articulate a careful consideration of the ethical responsibilities collaborative writing must acknowledge and negotiate. Prerequisite: ENG 110.
ENG 312. VISUAL RHETORICS 4 sh
This course introduces students to the specialized study and practice of visual rhetoric and document design. Emphasizing the rhetorical nature of visuals and design, the course draws attention to the thinking, processes and skills that are part of design, with specific attention to the design of various documents professional writers encounter. Students will be introduced to a variety of theories and design approaches. In addition to studying this content, they will have opportunities to apply and reflect on what they have learned. Prerequisite: ENG 110.

ENG 313. SPECIAL TOPICS IN PROFESSIONAL WRITING AND RHETORIC 4 sh
Special topics courses within the professional writing and rhetoric concentration offer students a deeper study of theory and practice as well as further opportunities to develop themselves as rhetors. Possible topics include Advanced Interactive Design, Citizen Rhetor, Advanced Composition and Argument and Writing for Nonprofits. May be taken more than once for credit, but may be applied to the English major only once. Prerequisite: ENG 110. Offered fall.

ENG 315. INTERMEDIATE CREATIVE WRITING: NONFICTION 4 sh
In this writing workshop, students develop a specific aspect of writing ability (e.g., voice, stylistics) or practice a particular type of writing (e.g., essay, biography, travel writing). Focus changes each semester. Prerequisite: ENG 110. Offered spring.

ENG 316. INTERMEDIATE CREATIVE WRITING: POETRY 4 sh
This workshop, centered around students’ poems, also includes study of contemporary poetry (occasionally earlier) to learn poetic techniques and to recognize the many possibilities of poetic forms, subjects and voices. Prerequisites: ENG 110 and 213 or permission of instructor. Offered fall.

ENG 317. INTERMEDIATE CREATIVE WRITING: FICTION 4 sh
This workshop, centered around students’ stories, also includes study of contemporary fiction (occasionally earlier) to learn techniques and to recognize possibilities for point of view, characterization, structure and diction. Prerequisites: ENG 110 and 213 or permission of instructor. Offered fall and spring.

ENG 318. WRITING SCIENCE 4 sh
This course examines the complex nature and practice of scientific and technical discourse. Although open to anyone with an interest in this topic, the course is designed especially for students majoring in the sciences who want to improve the professional writing skills necessary for successful careers in their chosen fields and students majoring in writing or communications who wish to pursue careers as technical and scientific communicators. Prerequisite: ENG 110.

ENG 319. WRITING CENTER WORKSHOP 4 sh
The Writing Center Workshop enhances students’ writing ability while they learn to tutor writing. Students are required to tutor four hours each week in Elon’s Writing Center. Strong writing abilities and interpersonal skills recommended. Prerequisite: ENG 110. Offered fall and spring.

Historical Studies
Courses in this group explore literature in historical, interdisciplinary and cross-cultural contexts.

ENG 321. CLASSICAL LITERATURE 4 sh
This study of ancient Greek and Roman literature and culture includes authors such as Homer, Plato, Sophocles, Ovid and Virgil, with readings from mythology, the great epics of the Trojan War, drama, philosophy and lyric poetry in modern translations. Satisfies departmental pre-1800 requirement and the departmental global/multicultural requirement. Offered fall of alternate years.
ENG 322. MEDIEVAL LITERATURE
This study of literature and culture of the European Middle Ages includes authors such as Dante, Chretien de Troyes, Chaucer and Malory, with readings from modern translations of epics such as “Beowulf” or “The Song of Roland”, poetry about love or religious experience such as “The Divine Comedy” or narratives about adventure and chivalry, such as legends of King Arthur. Satisfies departmental pre-1800 requirement.

ENG 323. RENAISSANCE LITERATURE
This study of British and Continental literature and culture of the 16th and early 17th centuries includes authors such as Sidney, Marlowe, Montaigne, Shakespeare and Cervantes. Readings in Renaissance English from Elizabethan and Jacobean drama, sonnet sequences, lyric and narrative poems, and precursors of the modern novel, such as Don Quixote, are covered. Satisfies departmental pre-1800 requirement.

ENG 324. ENLIGHTENMENT
This study focuses on the great works of British, Continental and American literature during an age of reason and sensibility marked by industrial, scientific and political revolutions. Satisfies departmental pre-1800 requirement.

ENG 325. ROMANTICISM
Romanticism provides an interdisciplinary study of British, American and Continental Romantic literature in the context of art, music (especially opera), cultural life and intellectual history.

ENG 326. REALISM AND THE LATER 19TH CENTURY
This study involves an interdisciplinary look at British, American and Continental literary movements (realism, naturalism, symbolism and aestheticism), including reading selected masterworks in the context of the intellectual and cultural life of the period.

ENG 327. 17TH CENTURY LITERATURE
This study of “The Century of Genius” includes works by British and Continental authors who ushered in the modern world. Satisfies departmental pre-1800 requirement.

ENG 328. MODERNISM
This interdisciplinary study of modernism as a dominant intellectual movement of the 20th century explores topics such as alienation, the artist’s role, the primitive, consciousness and the unconscious, human rights and the postmodern. The literature is supplemented by art, music and philosophical texts.

Cultural Studies
Courses in this group emphasize the study of literature in its cultural context, often from the perspective of a particular social group. Regional, gender, ethnic and class issues are all possible concentrations.

ENG 330. APPALACHIAN LITERATURE
A survey of 19th- and 20th-century Appalachian poetry, short and long fiction, drama, music, film and culture.

ENG 331. ADVANCED WORLD LITERATURE
Advanced study of selected works of European, Asian, African and Latin American literatures (in English translation), are taught from historical and cultural critical perspectives. Offered fall of alternate years. Satisfies the departmental global/multicultural requirement.

ENG 332. LITERATURE OF THE SOUTH
Emphasis is given to major 20th century writers in this study of Southern literature, its background and themes.

ENG 333. WOMEN IN LITERATURE: FEMINIST APPROACHES
This course studies modern and traditional works of literature interpreted or reinterpreted from the perspective of feminist literary theories.
ENG 334. NATIVE AMERICAN LITERATURE  4 sh
In an introduction to American Indian literature from the 18th century through the present, study includes special emphasis on contemporary writers of the Native American Renaissance. Satisfies the departmental global-multicultural requirement.

ENG 335. LATIN AMERICAN LITERATURE AND CULTURE  4 sh
This course looks at recent Latin American literature mainly through the lens of history and politics, but economics, geography, music, art and religion will also be taken into consideration. Course content will be in the form of poems, short and long fiction, non-fiction and film. Taught in English translation. Satisfies the departmental global-multicultural requirement.

ENG 336. PARIS AND THE EXPATRIATES  4 sh
This course explores the culture and remarkable inhabitants of 1920s Paris. It examines the varied nationalities of selected expatriates, why Paris attracted them and how it enriched them. Central figures of study include creative writers, performers, painters, photographers, essayists and entrepreneurs.

ENG 337. ASIAN LITERATURE OF SOCIAL CHANGE  4 sh
This course explores revolutionary democratic movements outside of the American tradition by studying 20th century Asian poetry, fiction and films, primarily of China and India. Offered irregularly. Satisfies the departmental global-multicultural requirement.

ENG 338. THE AFRICAN EXPERIENCE IN LITERATURE  4 sh
This course studies the literature of a variety of African countries in relation to Africa’s cultural traditions and its transition to modernity. Genres may include fiction, plays, poems, autobiographies and oral literature. Satisfies the departmental global-multicultural requirement.

ENG 339. AMERICAN ENVIRONMENTAL WRITERS  4 sh
A study of the major American environmental and natural history writers with close attention to issues of environmental ethics, aesthetics of nature and cultural attitudes towards the environment. The authors studied are Thoreau, Muir, Leopold, Carson, Abbey, Lopez, Wilson and Snyder. The course will emphasize the growing ethical and aesthetic appreciation of nature in American culture and how the insights of environmental writers can be used to address the environmental crisis. Offered spring of alternate years.

Author Studies
Courses in this group focus on the works of individual authors who have captured and continue to hold the imaginations of readers. Typical offerings include Yeats, Heaney, Poe, Hardy, Dickinson, Cather and those listed below.

ENG 341. CHAUCER  4 sh
A close study of Chaucer’s major works in the context of their medieval, intellectual and cultural background includes the greater portion of “The Canterbury Tales”, the dream visions and “Troilus and Cressida”. Satisfies the departmental pre-1800 requirement.

ENG 342. SHAKESPEARE  4 sh
Courses taught under this number examine the life and representative works of Shakespeare in the context of English culture of the late 16th and early 17th centuries. Typical offerings are Shakespeare: Works (selections from each of his genres), Shakespeare: Tragedies or Shakespeare: Comedies. Students may receive credit for more than one Shakespeare course in this category if the title is different. Satisfies the departmental pre-1800 requirement.

ENG 343. HEMINGWAY  4 sh
This course is a study of the Hemingway canon, including posthumous literature, published from the early 1920s to 2000. Emphasis will center on his various genres, where and how biography applies to interpretation of his work, his use of international locale and his artistic legacy.
ENG 344. **ROBERT FROST**  
This study of Frost’s early development as a lyric poet focuses on the close reading of his poetry, criticism and masques in the context of New England regionalism and the emergence of Modernism in American letters.

ENG 345. **JANE AUSTEN**  
Background study of 18th- and 19th-century England and the development of the novel are part of this examination of the life and writings of Austen.

ENG 348. **MARK TWAIN**  
This course studies the life and work of Mark Twain as an American humorist, realist and social critic. Readings include Roughing It, Innocents Abroad, The Gilded Age, Life on the Mississippi, Huckleberry Finn and Pudd’nhead Wilson, as well as selected shorter works and later writings.

**Genre Courses**

These courses offer studies in specific types of literature such as poetry, drama, the novel, the essay and the short story.

ENG 351. **THE NOVEL**  
Focus and content vary in this course, which examines representative novels from different countries and ages. Typical emphases include the American, the British, the picaresque, the political novel and the Bildungsroman. This course sometimes carries an emphasis on gender.

ENG 352. **DRAMA**  
In a study of western drama from ancient Greece to the present, representative texts are examined in their historical and cultural contexts.

ENG 353. **POETRY**  
This course examines how different types of poems work: their structure and sound, metaphor and image, thought and passion. We will study narrative and lyric poems by past and current writers and explore the influence of history and culture in shaping their work.

ENG 354. **THE SHORT STORY**  
This study of the short story as a literary form spans from its origins and development by Poe, Chekhov and others to experimental contemporary writers. Typically, five or six collections by writers from a variety of cultures are read.

ENG 355. **SPECIAL TOPICS IN GENRE STUDIES**  
This course will offer specialized topics in genre and could include such topics as Laughter and Comedy, The Novel: British Women Writers, or Modern Poetry: British and American. May be taken more than once for credit, but may be applied to the English major only once.

ENG 356. **NONFICTION**  
Courses offered under this heading will usually focus on a specific subgenre of nonfiction, such as travel writing, nature writing, political writing, biography, memoir, new journalism and the personal essay.

ENG 357. **THE LONDON THEATRE**  
Students see productions of Shakespearean and other classic dramas and experience more modern and contemporary plays — both fringe and mainstream — in this study of drama in the London Theatre. Study abroad students only.

ENG 359. **AFRICAN-AMERICAN NOVELS**  
This study of novels by such writers as Baldwin, Ellison, Hurston, Walker, Wright and Morrison gives attention to gender, place, alienation and changes in forms of protest. This course satisfies the cultural studies requirement for English majors. Offered fall of alternating years. Satisfies the departmental global/multicultural requirement.
Special Topics

Special Topics courses involve studies of various subjects, some of which fall outside the boundaries of traditional literary study.

**ENG 361. GENDER ISSUES IN CINEMA**  
4 sh  
This course explores how well film reveals gender differences between men and women. Time is spent studying gender stereotyping, the psychological accuracy of film’s representations of gender and gendered behavior of film directors. This course does not fulfill the General Studies literature requirement. Prerequisite: ENG 110.

**ENG 362. FILM CRITICISM**  
4 sh  
This course emphasizes how to interpret cinema critically, using films that illustrate cultural differences, periods and types of filmmaking and achievements in techniques and ideas of the greatest directors. This course does not fulfill the General Studies literature requirement. Prerequisite: ENG 110.

**ENG 363. TEACHING LITERATURE: CANONS, CULTURES AND CLASSROOMS**  
4 sh  
This course explores literature from the viewpoint of the teacher – exploring a wide range of issues relevant to classrooms, including reading theory, critical theory, censorship and canonicity, and cultural, multicultural, interdisciplinary and multimodal approaches. Students will read extensively in many genres of “classic” and “new canon” works, young adult and graphic novels, plays, poems and other texts, such as art, music and film. Although the primary focus of the course is secondary schools, it is useful for anyone interested in teaching at the middle grade or college levels, as well. Offered fall of alternating years.

**ENG 365. LITERATURE AND THEOLOGY**  
4 sh  
This course provides an interdisciplinary study focusing on relationships between literary and theological disciplines with special attention to literature illustrating various approaches to religious questions.

**ENG 366. CONTEMPORARY WRITERS**  
4 sh  
This course explores the contemporary movements in fiction, poetry and nonfiction with special attention to style and technique. This course will include significant reading as well as the production of original work. Assignments will be both creative and academic. This course meets the General Studies literature requirement and the core literature requirement for English majors. Prerequisites: ENG 110, ENG 213, or permission of instructor.

**ENG 367. THE ARTHURIAN LEGEND**  
4 sh  
Course study traces the development of stories of King Arthur and the Round Table from their appearance in the early Middle Ages through the present. Genres include chronicle, poetry, fiction and cinema.

**ENG 381. WRITING INTERNSHIP**  
1-4 sh  
Writing Internships give English majors from all concentrations practical experience in workplace settings potentially connected to future careers. Specific requirements will vary, but will include readings, reflective writing assignments and creating a portfolio. Prerequisite: ENG 110. Offered fall, winter and spring.

**ENG 382. TEACHING INTERNSHIP**  
1-4 sh  
The student will attend a 100-200-level course and will work with the professor teaching this course to develop assignments, journal prompts, quiz and class discussions, as well as lead small group discussions. The student will also meet with the professor once a week to discuss strategies for planning the course, selection of texts, the structure of daily class sessions and the pedagogical techniques used in the course. Prerequisites: ENG 110 and English major of at least sophomore standing. By permission of instructor and chair.

**ENG 385. MIDDLE EASTERN LITERATURE**  
4 sh  
This course looks mainly at recent Middle Eastern literature, treating it as we would any poem or novel or memoir, but, obviously, the region that produced this literature — its history, geography, politics, religion and economics — also will be taken into consider-
ation. The class will focus on an area that includes between 13 and 24 countries (depending on one’s definition of the Middle East), with an emphasis on Israel/Palestine, Egypt, Sudan, Iran and Turkey. Possible topics include postcolonial theory, Orientalism, women in the Middle East, monotheism and its discontents, and literature focused on place.

ENG 397. WRITING AS INQUIRY 4 sh
This course is designed to introduce students to research methods employed by practicing writers and to emphasize that writing as a rhetorical practice always involves active inquiry. In addition to surveying writerly research methods, students will gain hands-on experience with a variety of methods. In the context of specific assignments and projects, students will learn how to choose, sequence and adapt forms of inquiry to specific rhetorical situations, enhancing their artfulness as writers and professional rhetors. Prerequisites: ENG 110, 215 and 304. Offered fall.

ENG 399. YOUNG ADULT LITERATURE 4 sh
In this study of contemporary literature for young adult readers, students read texts appropriate to the adolescent, examine common themes and apply critical approaches suitable for middle grades and secondary classrooms. Authors may include Judy Blume, Robert Cormier, S. E. Hinton, Madeleine L’Engle, Gary Paulsen, Katherine Patterson and Cynthia Voigt. Credit toward English teacher licensure. No credit toward English major/minor. Prerequisites: EDU 211 or SOC 243, ENG 110.

ENG 413. ADVANCED CREATIVE WRITING 4 sh
Students in this workshop course will combine their reading of fiction, nonfiction and poetry with the production of their own new texts. This is specifically designed for the writing and revision of pieces suitable for publication and manuscripts appropriate for application to graduate writing programs. This class will be extremely rigorous while preserving the supportive and constructive atmosphere of the writing workshop. May be taken more than once for credit but may be applied to the English major only once. Prerequisites: ENG 110, 213, and at least one upper-level creative writing course (ENG 315-17).

ENG 414. SPECIAL TOPICS IN CREATIVE WRITING 4 sh
Special topics courses within the creative writing concentration offer students further opportunities to develop themselves as writers. Possible topics include Poetic Forms: History, Theory and Practice, Teaching Creative Writing in the Community, Flash Fiction, The Short-Short Story, and Hybrid Genres: The Confluence of Poetry, Fiction and Nonfiction. May be taken more than once for credit, but may be applied to the English major only once. Prerequisites: ENG 110, 213.

ENG 415. ADVANCED CUPID STUDIO 2 sh
Building on the writing, publishing, and project management work begun in ENG 282, students in this course will further apply their rhetorical and writing strategies as CUPID associates, running CUPID-sponsored programs and writing projects, assisting other students with projects and software questions during lab open hours, and working on specialized individual projects with extensive faculty mentorship. Repeatable up to 4 hours by invitation of the instructor only. Prerequisites: ENG 110 and ENG 282.

ENG 491. INDEPENDENT STUDY 1-4 sh
Senior Seminar, Research

ENG 495. SENIOR SEMINAR: LITERATURE 4 sh
This capstone seminar requires majors to integrate and extend their knowledge and practice of literary study. It emphasizes independent research, effectively presenting research in oral and written forms, and awareness of current debates in literary studies. Majors only or by permission of instructor. Offered fall.

ENG 496. SENIOR SEMINAR: CREATIVE WRITING 4 sh
The senior seminar in creative writing focuses on the students’ production of new work in fiction, poetry and/or nonfiction in a workshop environment. Emphasis is also placed on
the active reading of contemporary authors. Prerequisites: ENG 110, 213. Majors only or by permission of instructor. Offered fall.

**ENG 497. SENIOR SEMINAR: PROFESSIONAL WRITING AND RHETORIC**

4 sh

This course is a capstone experience, giving students a chance to reflect on what they have learned and done within the concentration, to engage in the more focused and advanced study indicative of being a senior, and to begin looking ahead to and preparing for their futures. Modeled after a graduate seminar, it allows students to conduct independent research in an area of their choice. Prerequisites: ENG 110, 397. Majors only or by permission of instructor. Offered spring.

**ENG 499. RESEARCH IN ENGLISH**

1-4 sh

This course offers students the opportunity to create an undergraduate original research project guided by a faculty mentor. A research proposal form completed by the student and faculty mentor is required for registration. Prerequisite: Permission of instructor.

**Entrepreneurship**

See Marketing and Entrepreneurship

**Environmental Studies**

Chair: Associate Professor Touchette
Professors: Kingston, Weston
Associate Professors: DiRosa, MacFall, Vandermast, Xiao
Assistant Professors: Kirk, Ponton, Strickland
Adjunct Professors: Laemont-Thomas, C. Niedziela

It has become clear that environmental challenges are not isolated. The quality of our water, the integrity of our coasts and the health of our forests shape the world in which we live. Elon University guides students to meet the challenges of today and to become creative and visionary stewards who will lead us to the sustainable communities of tomorrow. In our degree programs, students take a balanced, interdisciplinary core of classes grounded in environmental understanding. The core is supported by advanced disciplinary and interdisciplinary courses in the humanities, social sciences and natural sciences that focus on the environment. The strength of the curriculum emerges from its interdisciplinary perspective — for example, discussing water resource issues in geography, physics, biology, political science, ethics and environmental science classes. The course of study culminates in a capstone senior seminar, in which students develop a community-based project such as designing a river protection plan. Students are also required to complete an internship or independent research experience. They are also eligible to apply for the Elon College Fellows Program.

The Department of Environmental Studies offers a major in Environmental Studies (A.B. and B.S. degrees), a major in Environmental and Ecological Science (B.S. degree), and a minor in Environmental and Sustainability Studies. Each of the degrees has been designed to meet the needs of students pursuing different career paths. The B.S. degree in Environmental Studies supports the education objectives of students whose primary interests lie in the areas of environmental planning, policy development, green design and sustainable management. This degree blends foundational studies in environmental science, economics, ethics and political science with advanced study in the social sciences to develop the skills necessary to address societal needs and concerns involving the environment. The A.B. degree provides a similar foundation but allows students to focus their advanced courses in one of three
areas of concentrations (sustainability, global environmental issues, or environmental arts and communication) to support students interested in international study, communications, journalism and environmental art. The overlap between the elective courses in the three concentrations of the A.B. degree and the traditional Arts and Sciences disciplines facilitates the pursuit of a second major. The B.S. degree in Environmental and Ecological Science includes advanced study of ecological processes for those students who are specifically interested in environmental science careers in ecosystem management, wildlife ecology, conservation biology and environmental monitoring. The minor in Environmental and Sustainability Studies was developed for students with a major in another field of study who have an interest in developing their understanding of sustainability and the environment.

University Center for Environmental Studies

A center has been established with the mission of providing a regional focus for activities and interests which meet the environmental needs of the community in the Piedmont Region of North Carolina. The Center’s activities have focused on developing community partnerships with Elon students and faculty working on environmentally focused projects. Recent project partners have included the Piedmont Land Conservancy, the Natural Resource Conservation Service, the National Park Service, N.C. Parks and Recreation, local governments and industries. These partnerships have provided research and internship opportunities, providing real world opportunities to students and strengthening their personal and professional development.

A Bachelor of Arts degree with a major in Environmental Studies requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENS 110</td>
<td>Humans and Nature</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENS 111/113</td>
<td>Introduction to Environmental Science w/ Lab</td>
<td>4 sh</td>
</tr>
<tr>
<td>ECO 111</td>
<td>Principles of Economics</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENS 200</td>
<td>Strategies for Environmental Inquiry</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENS/BIO 215</td>
<td>Diversity of Life w/ Lab</td>
<td>4 sh</td>
</tr>
<tr>
<td>POL 224</td>
<td>Environmental Policy and Law</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHL/REL 348</td>
<td>Environmental Ethics</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENG 318</td>
<td>Writing Science</td>
</tr>
<tr>
<td>ENG 339</td>
<td>American Environmental Writers</td>
</tr>
<tr>
<td>ENS 381</td>
<td>Internship</td>
</tr>
<tr>
<td>ENS 461</td>
<td>Senior Seminar: Environmental Assessment and Project Development</td>
</tr>
</tbody>
</table>

CONCENTRATIONS: Select 12 semester hours from one of the three concentrations 12 sh

Sustainability

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECO 335</td>
<td>Environmental Economics</td>
</tr>
<tr>
<td>ENS 220</td>
<td>Organic Gardening and Sustainable Food Production</td>
</tr>
<tr>
<td>ENS/GEO250</td>
<td>Introduction to Geographic Information Systems</td>
</tr>
<tr>
<td>ENS/GEO340</td>
<td>Water Resource Management</td>
</tr>
<tr>
<td>ENS 320</td>
<td>Restoration Ecology w/ Lab</td>
</tr>
<tr>
<td>ENS 350</td>
<td>Environmental Visions</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
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<tr>
<td>ENS</td>
<td>Green Design</td>
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<tr>
<td>PHY</td>
<td>Energy and the Environment</td>
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<tr>
<td>POL</td>
<td>State Environmental Policy and Administration</td>
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<tr>
<td>SOC</td>
<td>Environmental Sociology</td>
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<tr>
<td>GEO</td>
<td>Global Environmental Change</td>
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<tr>
<td>GEO</td>
<td>Development and the Environment in Latin America, Africa and Asia)</td>
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<tr>
<td>GEO</td>
<td>Africa’s People and Environments</td>
</tr>
<tr>
<td>ENS/GEO</td>
<td>Introduction to Geographic Information Systems</td>
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<tr>
<td>ENS</td>
<td>Environmental Issues in Southeast Asia</td>
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<tr>
<td>POL</td>
<td>International Environmental Policy</td>
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<tr>
<td>ART</td>
<td>Time Arts</td>
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<tr>
<td>ART</td>
<td>Ecological Art</td>
</tr>
<tr>
<td>ENG</td>
<td>Science Writing</td>
</tr>
<tr>
<td>ENG</td>
<td>American Environmental Writers</td>
</tr>
<tr>
<td>COM</td>
<td>Environmental Communications</td>
</tr>
<tr>
<td>ENS/GEO</td>
<td>Introduction to Geographic Information Systems</td>
</tr>
</tbody>
</table>

**TOTAL** 49 sh

### A Bachelor of Science degree with a major in Environmental Studies requires the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENS</td>
<td>Introduction to Environmental Science w/ Lab</td>
</tr>
<tr>
<td>CHM</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>ECO</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>ENS</td>
<td>Strategies for Environmental Inquiry</td>
</tr>
<tr>
<td>ENS/BIO</td>
<td>Diversity of Life w/ Lab</td>
</tr>
<tr>
<td>POL</td>
<td>Environmental Policy and Law</td>
</tr>
<tr>
<td></td>
<td><strong>Choose two semester hours from one of the following:</strong></td>
</tr>
<tr>
<td>ENS</td>
<td>Internship</td>
</tr>
<tr>
<td>ENS</td>
<td>Research</td>
</tr>
<tr>
<td>ENS</td>
<td>Senior Seminar: Environmental Assessment and Project Development</td>
</tr>
</tbody>
</table>

**TOTAL** 25 sh

### Environmental Values in Communication

Choose two courses including at least one course indicated with a double asterisk 8 sh

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td>Ecological Art</td>
</tr>
<tr>
<td>COM</td>
<td>Environmental Communications</td>
</tr>
<tr>
<td>ENS</td>
<td>Humans and Nature</td>
</tr>
<tr>
<td>ENG</td>
<td>Writing Science</td>
</tr>
<tr>
<td>ENG</td>
<td>American Environmental Writers**</td>
</tr>
<tr>
<td>PHL/REL</td>
<td>Environmental Ethics**</td>
</tr>
</tbody>
</table>
Policy, Planning and Management

Choose four courses from the following: 16 sh

ECO 335  Environmental Economics
GEO 310  Development and the Environment in Latin America, Africa and Asia
GEO 345  Global Environmental Change
ENS/GEO250 Introduction to Geographic Information Systems
ENS/GEO340 Water Resources Management
ENS 360  Green Design
POL 322  State Environmental Policy and Administration
POL 344  International Environmental Policy

Science and Analysis

Choose two courses from the following: 8 sh

BIO 112/114 Introduction to Population Biology w/ Lab
BIO 335  Field Biology
BIO 342  Aquatic Biology w/ Lab
BIO 350  General Ecology w/ Lab
CHM 112  General Chemistry II w/ Lab
ENS 320  Restoration Ecology w/ Lab
ENS 330  Wildlife Ecology w/ Lab
ENS/BIO346 Wetlands Ecology and Management w/ Lab
PHY 110  Energy and the Environment
STS 212  Statistics in Application

TOTAL  62 sh

A Bachelor of Science degree with a major in Environmental and Ecological Science requires the following:

Core requirements

ENS 111/113 Introduction to Environmental Science w/ Lab 4 sh
BIO 112/114 Introduction to Population Biology w/ Lab 4 sh
CHM 111  General Chemistry I 4 sh
CHM 112  General Chemistry II 4 sh
ENS 200  Strategies for Environmental Inquiry 4 sh

Choose one course from the following: 4 sh

ENS 215  Diversity of Life w/ Lab
BIO 231  Biodiversity

Choose two semester hours from one of the following: 2 sh

ENS 381  Internship
ENS 499  Research
ENS 461  Senior Seminar: Environmental Assessment and Project Development 4 sh
Management, Design and Analysis

Choose eight semester hours including at least four semester hours with a double asterisk

- ENS/GEO250 Introduction to Geographic Information Systems 8 sh
- ENS/GEO340 Water Resource Management
- CHM 211 Organic Chemistry I w/ Lab**
- CHM 212 Organic Chemistry II w/ Lab**
- CHM 311 Quantitative Analysis w/ Lab**
- PHY 201 General Physics I **
  or
- PHY 221 University Physics**
- PHY 202 General Physics II **
  or
- PHY 222 University Physics II**
- STS 212 Statistics in Application**
- STS 232 Statistical Modeling**

Social Sciences and Humanities

Choose eight semester hours from the following: 8 sh

- ART 339 Ecological Art
- COM 331 Environmental Communications
- ECO 335 Environmental Economics (has ECO 111 prerequisite)
- ENG 318 Writing Science
- ENG 339 American Environmental Writers
- ENS 110 Humans and Nature
- PHL/REL348 Environmental Ethics
- POL 224 Environmental Policy and Law
- POL 322 State Environmental Policy and Administration
- POL 344 International Environmental Policy
- SOC 334 Environmental Sociology

Ecological Processes

Choose sixteen semester hours with no more than four semester hours in ENS 359 from the following: 16 sh

- BIO 335 Field Biology
- BIO 342 Aquatic Biology: The Study of Inland Waters w/ Lab
- BIO 350 General Ecology w/ Lab
- CHM 305 Environmental Chemistry w/ Lab
- ENS 320 Restoration Ecology w/ Lab
- ENS 330 Wildlife Ecology w/ Lab
- ENS/BIO346 Wetland Ecology and Management w/ Lab
- ENS 359 Special Topics Seminar (2 sh)

TOTAL 62 sh
A minor in Environmental and Sustainability Studies requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENS 111/113</td>
<td>Introduction to Environmental Science w/ Lab</td>
<td>4 sh</td>
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</table>

Choose one course from the following: 4 sh

<table>
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<tr>
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<tbody>
<tr>
<td>ECO 335</td>
<td>Environmental Economics (ECO 111 prerequisite)</td>
</tr>
<tr>
<td>POL 224</td>
<td>Environmental Policy and Law</td>
</tr>
<tr>
<td>POL 344</td>
<td>International Environmental Policy</td>
</tr>
<tr>
<td>SOC 334</td>
<td>Environmental Sociology</td>
</tr>
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<tr>
<td>ENS 110</td>
<td>Humans and Nature</td>
</tr>
<tr>
<td>REL/PHL 348</td>
<td>Environmental Ethics</td>
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<td>Strategies for Environmental Inquiry</td>
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<tr>
<td>ENG 318</td>
<td>Writing Science</td>
</tr>
<tr>
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</tr>
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Choose two courses including at least one course indicated by ** from the following: 8 sh

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<td>ENS 200</td>
<td>Strategies for Environmental Inquiry</td>
</tr>
<tr>
<td>ENS 220</td>
<td>Organic Gardening and Sustainable Food Production</td>
</tr>
<tr>
<td>ENS/GEO 250</td>
<td>Introduction to Geographic Information Systems</td>
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<td>ENG 318</td>
<td>Science Writing</td>
</tr>
<tr>
<td>ENS/GEO 340</td>
<td>Water Resource Management</td>
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<tr>
<td>ENS 350</td>
<td>Environmental Visions</td>
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<tr>
<td>ENS 360</td>
<td>Green Design</td>
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<tr>
<td>GEO 345</td>
<td>Global Environmental Change</td>
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</tr>
<tr>
<td>ENS/BIO 346</td>
<td>Wetland Ecology and Management w/ Lab **</td>
</tr>
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</table>

**TOTAL 24 sh**
A Bachelor of Arts degree in Environmental Science/Environmental Engineering: See requirements listed in Engineering.

ENS 101. CURRENT ISSUES IN ENVIRONMENTAL SCIENCE 4 sh

Designed for non-science majors, this course focuses on reading, interpreting and evaluating facts behind environmental issues and exploring the implications for science and human society. Topics will focus on understanding environmental processes such as energy flow and matter within ecosystems and human relationships with these environmental and ecological systems. Themes of sustainability will be woven throughout the course. No credit toward the Environmental Studies major, the Environmental and Ecological Science major or Environmental and Sustainability Studies minor. Satisfies the non-laboratory science requirement of the General Studies program. Offered fall.

ENS 110. HUMANS AND NATURE 4 sh

This course introduces a multidisciplinary perspective on environmental issues, concentrating on such topics as the historical transformations of the human relation to nature; understandings of the roots of the current crisis from diverse philosophical and spiritual perspectives; the sociology, politics and economics of environmental issues as they currently stand; and an exploration of our imaginative and expressive (artistic, literary, and poetic) resources for articulating the current crisis and seeing our way beyond it. Field trips and special readings introduce these questions in the context of North Carolina's Piedmont region. Satisfies the Society requirement of the General Studies Program. Offered fall and spring.

ENS 111. INTRODUCTION TO ENVIRONMENTAL SCIENCE 3 sh

This course explores the fundamental principles of the biological and physical sciences behind natural ecosystems. The central focus is the study of ecosystem function, human impact and techniques of environmental assessments. Students consider different world views and the development of solutions. Satisfies the laboratory science requirement of the General Studies program. Co-requisite: ENS 113. Offered fall and spring.

ENS 113. INTRODUCTION TO ENVIRONMENTAL SCIENCE LAB 1 sh

Students will be introduced to techniques for environmental assessment. The focus is on field research as applied to environmental management. One 3-hour laboratory per week. Co-requisite: ENS 111. Offered fall and spring.

ENS 200. STRATEGIES FOR ENVIRONMENTAL INQUIRY 4 sh

This course consists of in-depth examination of different ways of thinking about and studying the environment, with a primary emphasis on conducting scholarly work within an interdisciplinary framework. Topics include: researching and writing literature reviews; qualitative and quantitative research methods used in natural sciences, social sciences and the humanities; basic empirical design and statistical methods; stakeholder analysis; and analysis of value systems. This course is designed for Environmental Studies and Environmental and Ecological Sciences majors, but may be useful for other students. Prerequisite: ENS111/113 or ENS110. Offered spring.

ENS 215. DIVERSITY OF LIFE 4 sh

This course examines the basic concepts of biological form and function, based on evolutionary relationships and diversity. Students investigate the natural history of local species and their role in community dynamics. Laboratory experiences emphasize field investigations, including sampling techniques, species identification and data analysis. Satisfies the General Studies lab science requirement. This course can also be used for the Elementary Education major concentration in Society and Environment, as well as a minor in Biology. No credit toward the Biology major. Prerequisites: ENS 111/113 or BIO 112/114. (ENS 215 is cross-listed with BIO 215). Offered spring.

ENS 220. ORGANIC GARDENING AND SUSTAINABLE FOOD PRODUCTION 4 sh

An introduction to the theory and practice of organic and bio-intensive gardening and sustainable food production. Students will learn about the seasonal cycle of gardening and
how to plan and lay out a new garden and raise and harvest their own fruits and vegetables. The course will also touch upon sustainable orchard and vineyard practices. Students will be able to apply what they learn through field demonstrations and hands-on experience at a small organic farm. They will have an opportunity to harvest seasonal fruits. Field trips will introduce students to sustainable animal husbandry practices at local farms. Offered summer.

ENS 250. INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS 4 sh
In this course, the student will be introduced to the concept of visualizing, exploring and analyzing data geographically. The student will obtain hands-on experience of display, analysis and presentation of mapping functions using the latest ArcGIS software. Assignments will be geared toward environmental management and decision making. Cross-listed with GEO 250. Satisfies the society requirement of the General Studies program. It cannot be applied toward the Science requirement. Offered fall and spring.

ENS 310. ENVIRONMENTAL ISSUES IN SOUTHEAST ASIA 4 sh
This course focuses on the environmental issues facing the island nations and the mainland countries of Southeast Asia. The major environmental problems in this region of the world include deforestation, soil erosion, habitat destruction, habitat fragmentation, water pollution from mineral extraction and industry, unsustainable harvesting practices and rising rates of disease. Emphasis will be placed on the demographic, cultural, political, religious, economic and ecological reasons for the current state of the environment of Southeast Asia. Practical solutions to reduce environmental degradation and promote sustainable development will be examined. This course cannot be used to satisfy a Science requirement. Satisfies a requirement of the Asian regional concentration of the International Studies major and the Asian Studies minor. Offered spring of alternate years.

ENS 320. RESTORATION ECOLOGY 4 sh
The restoration of ecosystems involves the intentional activities by humans that initiate or accelerate the recovery of an ecosystem with respect to its health, integrity and sustainability. Students will learn to assess the health, function and value of ecosystems, with a goal of establishing restoration targets and objectives. They will explore varied restoration approaches and techniques for evaluation of success through specific case studies, field labs and field trips to restoration projects in North Carolina that will be held outside of scheduled classroom times. Three class hours, one laboratory per week. Satisfies the lab science requirement of the General Studies program. Prerequisites: ENS 111/113, or BIO 112/114 or permission of instructor. Offered fall of odd-numbered years.

ENS 330. WILDLIFE ECOLOGY 4 sh
This course will introduce students to the field of wildlife ecology, giving them a sound background in its theory and practice. It will also introduce students to applied methodology for studying wildlife including experimental design, survey techniques and data analysis. Three class hours and one laboratory per week. Satisfies the laboratory science requirement of the General Studies program. Prerequisites: ENS 111/113, or BIO 112/114 or permission of instructor. Offered fall of even-numbered years.

ENS 340. WATER RESOURCES MANAGEMENT 4 sh
This course focuses on the role that water plays in human and environmental systems by examining the cycling and spatio-temporal distribution of water, exploring the importance of water to biological processes and human use of the land, and evaluating water policies, laws and economics. Using case studies, field visits, and applied exercises, students will gain a broad exposure to the challenges of natural resource management in the 21st century. Satisfies the Society requirement of the General Studies program. No prerequisites. Cross-listed as GEO 340.

ENS 346. WETLAND ECOLOGY AND MANAGEMENT 4 sh
This course will present the biological, chemical and physical properties of wetland ecosystems in North America. Topics will include hydrology, biogeochemistry, biological adaptations, ecology and functional aspects of wetlands. Principles behind wetland classification,
delineation and management will also be introduced. This class will maintain a strong field component involving field techniques, monitoring and evaluation of wetlands. At least two weekend fieldtrips, involving rigorous scientific inquiry, will be required. Prerequisites: BIO 231 or ENS 215 or permission of instructor. Cross-listed as BIO 346.

ENS 350.  ENVIRONMENTAL VISIONS  
This course explores emerging alternative, long-term, “green” visions of the future far beyond the familiar responses to the ecological emergency of our times. What might fully realized eco-visionary social and technological systems look like? Might our relations with other-than-human beings be completely transformed? Might environmentalism itself evolve as we move beyond the Earth itself? Students end by developing an environmental vision of their own. Satisfies the expression requirement of the General Studies program.

ENS 359.  SPECIAL TOPICS SEMINAR  
Each seminar is a non-laboratory discussion course that focuses on one environmental topic determined by student and faculty interest. Must have instructor’s consent.

ENS 360.  GREEN DESIGN: ENVISIONING A SUSTAINABLE FUTURE  
This course introduces students to a broad range of green design solutions to sustainability issues facing our culture. The goal of this course is to explore a broad range of architectural, technological and sustainable energy design choices in terms of their practicality, efficiency, cost effectiveness and environmental impact. Students will be encouraged to look beyond conventional building designs, urban and land-use planning, automotive transportation systems, fossil-fuel energy sources, industrial food production to invent green and sustainable alternatives.

ENS 381.  INTERNSHIP IN ENVIRONMENTAL STUDIES  
An internship provides work experience at an advanced level in environmental policy, planning, management or science. Prerequisites: Junior/senior standing as an Environmental Studies major and permission of the Environmental Studies department chair. Offered fall, winter, spring or summer.

ENS 461.  SENIOR SEMINAR: ENVIRONMENTAL ASSESSMENT AND PROJECT DEVELOPMENT  
Students work as a design and management team on a semester-long local or regional environmental project. Students must be able to analyze data, conduct field research and critically analyze studies and other materials associated with environmental issues. They must also recognize the value of community partnerships in their work, and to work effectively with these partners and stakeholders. The goal of this course is for students to improve and demonstrate these cross-disciplinary skills. Prerequisite: senior standing as an Environmental Studies major or Environmental and Ecological Science major. Offered fall.

Exercise Science

Chair: Professor J. Davis
Professors: Beedle, Miller
Associate Professors: Bixby, Hall, Ketcham
Assistant Professor: Nepocatych

Exercise Science is the systematic study of the mechanisms underlying human movement, exercise and physical activity. Sub-disciplines include human anatomy, physiology, neuroscience, psychology, motor control and biomechanics. An individual studying exercise science should have a strong interest in applying scientific principles to a variety of human movement, exercise and physical activity settings.

The Exercise Science program is dedicated to developing a student’s critical thinking skills, capacity to solve problems and the ability to apply theoretical concepts. These abilities are addressed in classroom and laboratory settings as well as practicum, internship and independent research opportunities.
An Exercise Science degree prepares students for careers in a variety of areas related to human movement, exercise and physical activity. The career possibilities for an individual with an exercise science background and appropriate graduate study include many fields in health and medicine such as cardiac rehabilitation, physical therapy, dietetics, occupational therapy, medicine and chiropractic. The Exercise Science graduate may also pursue careers or advanced studies in disciplines including, but not limited to, corporate wellness, strength and conditioning, public health, personal training, applied physiology, psychology, bioengineering and related areas of research.

**A major in Exercise Science requires the following:**

<table>
<thead>
<tr>
<th>Core courses</th>
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<tbody>
<tr>
<td>ESS 101 Introduction to Exercise Science</td>
<td>2 sh</td>
</tr>
<tr>
<td>ESS 263 Structural and Functional Kinesiology</td>
<td>4 sh</td>
</tr>
<tr>
<td>ESS 281 Practicum</td>
<td>2 sh</td>
</tr>
<tr>
<td>ESS 295 Research Methods</td>
<td>4 sh</td>
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<tr>
<td>ESS 321 Biomechanics</td>
<td>4 sh</td>
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<tr>
<td>ESS 322 Epidemiology of Physical Activity</td>
<td>4 sh</td>
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<tr>
<td>ESS 422 Physiology of Exercise</td>
<td>4 sh</td>
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<tr>
<td>ESS 424 Applied Exercise Physiology</td>
<td>4 sh</td>
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<tr>
<td>ESS 495 Senior Seminar</td>
<td>4 sh</td>
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<tr>
<td>CHM 111 General Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>BIO 161 Human Anatomy</td>
<td>4 sh</td>
</tr>
<tr>
<td>BIO 162 Human Physiology</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 324 Nutrition</td>
<td>4 sh</td>
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</tbody>
</table>

Select one course from the following: 4 sh

- ESS 333 Exercise Psychology
- ESS 342 Sport Psychology

Eight semester hours from any ESS course 8 sh

**TOTAL** 60 sh

**A minor in Exercise Science requires the following courses:**

<table>
<thead>
<tr>
<th>Courses</th>
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</thead>
<tbody>
<tr>
<td>ESS 422 Physiology of Exercise</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 324 Nutrition</td>
<td>4 sh</td>
</tr>
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<td>ESS 321 Biomechanics</td>
<td>4 sh</td>
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<tr>
<td>BIO 161 Human Anatomy</td>
<td>4 sh</td>
</tr>
<tr>
<td>BIO 162 Human Physiology</td>
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</table>

**TOTAL** 20 sh

**ESS 101. INTRODUCTION TO EXERCISE SCIENCE** 2 sh

This course is an overview of the many sub-disciplines and professions in the broad field of exercise science. Objectives include a survey study of anatomy, physiology, biomechanics and sport/exercise psychology. Students will explore a variety of potential career paths
and the requirements for advanced study in the health sciences, medicine and research are examined. Offered fall and spring.

**ESS 120. MEDICAL TERMINOLOGY**  
2 sh

This course is an exploration of basic medical terminology. Prefixes, roots, suffixes and the combining vowels will be examined with special interest given to the use of medical terminology in correct context as applied to a variety of body systems and medical professions. Offered fall, spring and summer.

**ESS 263. STRUCTURAL AND FUNCTIONAL KINESIOLOGY**  
4 sh

This course is designed to increase student knowledge regarding the structural and functional components of musculoskeletal and neuromuscular human anatomy. The combined study of musculoskeletal and neuromuscular structures and functions will be undertaken to better understand how human movement is produced and controlled. Prerequisite: BIO 161 or 343. Offered fall and spring.

**ESS 281. PRACTICUM IN EXERCISE SCIENCE**  
2 sh

The practicum introduces the student to professions in exercise science and health-related fields. Students choose three different agencies in which they will shadow a practitioner for approximately 27 hours. A minimum of 80 hours is required. Students discuss their experiences through written reports in which they reflect upon and critique the experience, practitioner and agency, and the practitioners evaluate the students’ career potential, professionalism and motivation for learning. Students must make arrangements with their professor the semester prior to the practicum. Prerequisites: ESS 101 and a declared ESS major. Offered fall, winter, spring and summer.

**ESS 295. RESEARCH METHODS**  
4 sh

This course is an overview of research methods and procedures. Areas of investigation include research study and design, research study procedures, scientific writing, data collection, presentation styles and statistical analysis. Prerequisite: ESS 101. Offered fall and spring.

**ESS 315. ADVANCED STRENGTH TRAINING CONDITIONING**  
4 sh

This course covers physical fitness testing and strength evaluation of the athlete, components of a physical conditioning program, use of commercial and free weight equipment, technique/skill demonstration, evaluation of and designing and implementing fitness/conditioning programs. The course is designed to assist students in preparation for taking the NSCA—Strength and Conditioning Specialist (CSCS) or NSCA—Certified Personal Trainer tests (NSCA-CPT). The course also ensures a minimal competence among practitioners from a scientific, educational and methodological perspective. Prerequisite: Junior/senior standing.

**ESS 321. BIOMECHANICS**  
4 sh

Students study the musculoskeletal system and biomechanics from the point of view of physical education activities, exercise/sports injuries and sports skills. Laboratory activities include the use of motion analysis software for projectile analysis, gait analysis, vertical jump analysis, conservation of angular momentum, analysis of lifting and calculation of center of gravity. This course requires a two-hour laboratory. Prerequisite: BIO 161 or 343. Offered fall and spring.

**ESS 322. EPIDEMIOLOGY OF PHYSICAL ACTIVITY**  
4 sh

This course will examine the relationship between physical activity and disease. Epidemiological assessment will be discussed as well as current findings regarding the association between physical activity and a variety of disease conditions. Prerequisite: ESS 295. Offered fall and spring.

**ESS 333. EXERCISE PSYCHOLOGY**  
4 sh

This course will examine applied and theoretical issues related to the psychology of physical activity. Theories of motivation and exercise behavior will be examined in relation to the
increasing problems of exercise adherence and physical inactivity. Other topics that will be discussed include the psychological benefits of exercise, personality and exercise, body image and the psychology of injury. Various techniques will be discussed in relation to motivating exercise behaviors and how to deal with special populations. This course does not fulfill requirements for a major or minor in psychology. Prerequisite: ESS 295. Offered fall.

**ESS 342. SPORT PSYCHOLOGY**
This course will examine the theories and research related to sport behavior. The course is designed to introduce you to the field of sport psychology through a broad overview of the major topics in sport psychology including, but not limited to, personality, motivation, arousal, imagery, goal setting and burnout. A focus will be on performance enhancement through practical applications of theory. Prerequisite: ESS 295. Offered spring.

**ESS 422. PHYSIOLOGY OF EXERCISE**
This course is a study of the acute responses and chronic adaptations to exercise. An in-depth investigation of the impact exercise has on cellular and systemic function will be the primary focus. Laboratory activities include investigation of aerobic and anaerobic power and capacity, metabolism, muscle function, flexibility, heart rate, blood pressure and body composition. This course requires a two-hour lab. Prerequisite: BIO 162. Offered fall and spring.

**ESS 424. APPLIED EXERCISE PHYSIOLOGY**
Students gain applied knowledge in order to evaluate, develop and supervise exercise programs for both healthy and special populations. Topics include basic terminology, risk identification, types of fitness tests, indications and contraindications to exercise, program administration and effective communication techniques. Prerequisite: ESS 422. Offered fall and spring.

**ESS 440. EXERCISE AND THE CELL**
This course will examine cellular physiological processes that underlie exercise; specifically neural conduction, muscle contraction and bioenergetics. This course will address exercise capacity, exercise responses and training adaptations. Various laboratory techniques will be discussed and utilized. Prerequisites: BIO 162, ESS 422 or permission of the instructor. Offered fall.

**ESS 443. EXERCISE PSYCHOPHYSIOLOGY**
This course will focus on the psychophysiology of exercise and cover such topics as the influence of exercise on affect, anxiety, depression, sleep, pain and cognitive functioning. Additionally, psychophysiological factors related to performance will be examined. The objective of this course is to give the student an overview of research and theory that has incorporated a psychophysiological (and in some cases a psychobiological) approach, i.e., an approach which views the interaction between physiological and psychological states as a reciprocal relationship. Prerequisite: ESS 333 or 342. Offered spring odd years.

**ESS 482. INTERNSHIP IN EXERCISE SCIENCE**
Upper-class Exercise Science majors select a sports medicine or health-related agency for their internship, a capstone experience. Students serve 80-160 hours at the agency. Students turn in biweekly reports, including a brief discussion of the experience, reflections and a critique of the experience/agency. Students may engage in problem-solving assignments and perform research on some particular topic. Students may also assist with patient/client care and/or training and shadow their supervisor. A research paper is due near the end of the experience. Students should make arrangements with their professors the semester prior to taking the internship. Prerequisites: ESS 281; junior/senior majors; 2.0 GPA overall, 2.0 GPA in major. Offered fall, winter, spring and summer.

**ESS 491. INDEPENDENT STUDY**
This course examines the current trends, ideas, technology and scientific theory associated with exercise science. Students will design, propose, conduct, write and present a substan-
tive research endeavor. They will examine up-to-date disciplinary ideology and discuss these concepts in a seminar-type setting. They will also develop position papers and discuss methods for implementation of fitness concepts in clinical, commercial and community settings. Additionally, they will lead “journal club” activities and the ensuing discussion of that topic. Prerequisites: ESS 295, 422 and senior standing. Offered fall and spring.

ESS 499. RESEARCH IN EXERCISE SCIENCE
1-4 sh
Independent research project supervised by faculty mentor. Offered fall, winter, spring and summer.

Finance
Chair: Professor Synn
Associate Professor: Pavlik
Assistant Professors: Gupta, Shi
Lecturer: Tsarsis

A major in Finance requires the following courses:

Core Requirements 53-56 sh

See listing under Business for core requirements for the major.

ECO 310 Intermediate Macroeconomics Theory 4 sh
FIN 413 Advanced Managerial Finance 4 sh
FIN 421 Investment Principles 4 sh

Choose two courses from the following: 8 sh

FIN 416 Fundamentals of Insurance
FIN 418 Financial Markets and Institutions
FIN 419 Financial Planning
FIN 433 Derivatives
FIN 445 Security Analysis and Portfolio Management
FIN 465-469 Seminar: Special Topics (Finance)
A course preapproved by the Chair of the Finance Department that is not limited to LSB courses

TOTAL 73-76 sh

FIN 303. INTRODUCTION TO FINANCE 4 sh
For non-majors and business administration minors, this introductory course offers a balanced, survey approach to the three major areas of finance: investments, financial markets and corporate or business finance. It is designed to provide students a foundation with regard to the key concepts from each of these areas so that they will better understand the functions of the financial system and the role it has in their lives. Sophomore standing required. No credit for both FIN 343 and FIN 303. Offered fall and spring.

FIN 343. PRINCIPLES OF FINANCE 4 sh
This course provides an introduction to the fundamental concepts and techniques of finance and might be subtitled “what every business major needs to know about finance.” It is designed to provide students a foundation with regard to the key concepts from each of three major areas of finance: investments, financial markets and corporate or managerial finance. In the class, we will discuss issues relating to the financial markets, the time value of money, financing, valuation, investments and other topics. Prerequisites: CIS 211 and ACC 201; Pre- or Co-requisites: ACC 212 and ECO 203, or MTH/STS 212 (for statistics majors only). ACC 212 is waived for statistics majors only. Offered fall and spring.
FIN 413. ADVANCED MANAGERIAL FINANCE 4 sh
The in-depth study of financial management from the perspective of valuative theory involves discussions of topics such as security evaluation and capital budgeting within the framework of the Capital Asset Pricing Model. Study relates cost of capital, capital structure and leverage to valuation concepts. Examination of long-term financing includes studies of leasing as well as warrants, convertibles and options. Valuation impacts of mergers and reorganizations are also covered. Prerequisite: FIN 343. Offered fall and spring.

FIN 416. FUNDAMENTALS OF INSURANCE 4 sh
This course provides a study of the basic principles of insurance contracts and the scope of coverage under the several divisions of insurance, including life, fire, casualty, marine, bond and automobile insurance. Prerequisite: FIN 343.

FIN 418. FINANCIAL MARKETS AND INSTITUTIONS 4 sh
The purpose of this course is to provide an understanding of the role that financial institutions and markets play in our modern national and global economies. The course will examine interest rates, monetary policy, securities and their markets, the Federal Reserve, business cycles and how financial institutions manage risk. In addition, the recent economic upheaval and the instability on Wall Street will be discussed. Prerequisite: FIN 343. Offered fall or spring.

FIN 419. FINANCIAL PLANNING 4 sh
This course is designed to introduce students to the U.S. financial services sector and to show how the industries within the sector relate to the financial planning process. Broad topics include retirement and estate planning, and the functions of the banking, insurance and mutual fund industries. Under each of the broader topics, many of the products and services offered by the industries will be discussed and linked to the financial planning process. Prerequisite: FIN 343. Offered fall or spring.

FIN 421. INVESTMENT PRINCIPLES 4 sh
This course provides an introduction to the basic concepts of investments and investment management. It develops a framework within which to view the investment process and an understanding of the institutional setting in which investment decisions are made. Topics covered include financial markets, risk and return analysis, fundamental and technical analysis, derivatives and asset allocation. Finally, global, ethical, legal, regulatory and financial planning issues will be discussed throughout the course. Prerequisite: FIN 343. Offered fall and spring.

FIN 433. DERIVATIVES 4 sh
This course introduces financial derivative theories, strategies and valuation methodologies. Additional topics will include uses of sensitivity analysis and of derivatives in risk management. The primary emphasis of this course will be on options, although it will also provide a foundation in futures markets and contracts. Prerequisite: FIN 343. Offered fall or spring.

FIN 445. SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT 4 sh
This course teaches the application of tools and techniques for appraising the economy, specific industries and companies, emphasizing securities markets from the perspectives of institutional portfolio managers or personal investors. Prerequisite: FIN 343.

FIN 465-469. SEMINAR: SPECIAL TOPICS 1-4 sh
This upper-level seminar, an advanced study requiring active participation by students, consists of readings, problems, reports, discussions of current topics or preparation for professional examinations. May be conducted by departmental faculty or other resource persons. Prerequisite: Permission of instructor, may vary with topic.

FIN 481. INTERNSHIP IN FINANCE 1-4 sh
An internship offers the student valuable experience in the field of finance. Appropriate placement must be arranged by the student with the aid and support of the faculty and other appropriate resources.
**Fine Arts**

Chair, Department of Art: Associate Professor Fels  
Adjunct: Rhoades

The fine arts curriculum examines the connections between the various disciplines of artistic and intellectual creativity from a variety of perspectives. These disciplines, including the visual and performing arts, literature, music, film, philosophy, foreign languages and education, are studied in courses offered both on campus and overseas. Through fine arts courses, students experience how the arts are an inextricable part of culture that provide insight into human creativity and expression.

**FNA 211. INTRODUCTION TO FINE ARTS**  
4 sh  
This comparative study of the major artistic forms involves readings, exhibitions, cultural events, lectures and workshops with visiting artists through which students discover works of art, their uses, purposes and aesthetic values. Offered fall and spring.

**FNA 251. FINE ARTS STUDIES IN ENGLAND**  
4 sh  
This course is a study tour of London emphasizing theatres, concerts and places of cultural importance. Winter Term only.

**FNA 265. FINE ARTS STUDIES IN ITALY**  
4 sh  
This course is a study tour of Italy exploring the music, art, architecture and theatre. Winter Term only.

**FNA 313. BRITISH ART AND ARCHITECTURE**  
4 sh  
Field trips to museums and historically relevant sites complement classroom study of the art and architecture of England from the Anglo-Saxon and Roman periods to the 19th century. Offered fall and spring.

**FNA 369. FINE ARTS IN THE PUBLIC SCHOOLS**  
4 sh  
Early childhood and elementary education majors become familiar with current approaches to teaching the arts, with emphasis placed on incorporating the arts into daily instruction. Prerequisites: Junior standing, acceptance to the teacher education program and PSY 321. Materials fee: $20.

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**Foreign Languages**

Chair: Associate Professor Windham  
Associate Professors: Adamson, de Lama, Ihrie, Van Bodegraven  
Assistant Professors: Choplin, Garcia Soormally, Glasco, Namaste, Neville, Olmedo, Tillson  
Senior Lecturer: Cotto, Post  
Lecturer: Kupadze  
Visiting Professors: Araki, Elgamal, Meinking, Pardini

Today’s students are faced with a global economy and a shrinking world. This makes the study of foreign languages more essential than ever.

The Department of Foreign Languages offers Bachelor of Arts degrees in French and Spanish, and minors in those two languages. Students majoring in French or Spanish may also choose a program leading to teacher licensure. Together with our partners across campus, we offer minors in Italian studies, German studies, Latin American studies, Middle East studies, classical studies and Asian studies. These degrees pair nicely with majors in international studies, business, history, philosophy, art history, engineering, chemistry, religion and physics, to name a few.
In the French and Spanish programs, course offerings are balanced among literary, cultural and linguistic study. The minors in Italian studies and German studies require language study and classes on cultural topics taught in English. Classroom learning is enhanced by video and computer technology as well as study abroad opportunities.

A major in French requires the following courses:

**Culture and civilization category:**

Choose at least three of the following courses:  

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE 323</td>
<td>Current Events in the French and Francophone World</td>
</tr>
<tr>
<td>FRE 361</td>
<td>Defining Moments in French Civilization</td>
</tr>
<tr>
<td>FRE 363</td>
<td>The French Cinema</td>
</tr>
</tbody>
</table>

Other approved courses from the Culture and Civilization category

**Literature category:**

Choose at least two of the following courses:  

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE 350</td>
<td>Methods: Introduction in Literary and Cultural Analysis (prerequisite for all higher-numbered literature courses)</td>
</tr>
<tr>
<td>FRE 351</td>
<td>Perspectives on Early France</td>
</tr>
<tr>
<td>FRE 352</td>
<td>Perspectives on Modern France</td>
</tr>
<tr>
<td>FRE 353</td>
<td>Francophone World outside the Hexagon</td>
</tr>
</tbody>
</table>

Other approved courses from literature category

**Language category:**

Choose at least three of the following courses: (four hours must be taken abroad)  

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE 321</td>
<td>French Conversation</td>
</tr>
<tr>
<td>FRE 324</td>
<td>French Phonetics</td>
</tr>
<tr>
<td>FRE 325</td>
<td>Advanced French Grammar</td>
</tr>
</tbody>
</table>

Other approved French courses from the language category

**Electives:**

Two additional electives above the 222 level

Senior comprehensive exam

**TOTAL**  

French majors are required to study abroad for at least one semester in a program that has been approved by the university and the department. Credits earned in such a program may substitute for requirements for this major. A maximum of 16 semester hours per semester from courses taken abroad can apply to the French major. Additional credits from abroad may be applied to General Studies requirements, another major or a minor as appropriate, or used as elective credit for graduation.

A maximum of four semester hours in internship credit can apply to the French major.

A minor in French requires 24 semester hours of courses taught in French beginning with FRE 221 or higher. FRE 350 is required. A winter or summer term abroad in a French-speaking country is strongly encouraged. A maximum of 12 semester hours of courses taught in French abroad can apply to the minor.
A major in Spanish requires the following courses:

SPN 322 Composition (prerequisite for all upper level courses)  

**Culture category:**

Choose at least two of the following:  

- SPN 333 Spanish Civilization  
- SPN 334 Latin American Civilization  
- SPN 335 Latinos in the U.S.  
- SPN 372 Special Topics (must be culturally focused)  

**Literature category:**

Choose at least two of the following including SPN 350:  

- SPN 350 Introduction to Literary Analysis in Spanish (prerequisite for all higher-numbered literature courses)  
- SPN 351 Survey of Peninsular Literature  
- SPN 352 Survey of Latin American Literature  
- SPN 353 Studies in Peninsular Literature  
- SPN 354 Studies in Latin American Literature  
- SPN 371-79 Special Topics (must be literary topics)  
- SPN 475 Special Topics  

**Language category:**

Choose at least two of the following courses:  

- SPN 421 Advanced Grammar I  
- SPN 422 Advanced Grammar II  
- SPN 451 Phonetics  
- SPN 461 Translation  

**Capstone:**

SPN 465 Colloquium in Hispanic Studies  

*(To graduate with a major in Spanish, a grade of “C” or higher is required in this course)*

Elective courses:  

A 40-hour major may be completed by taking any Spanish courses above the 222 level, chosen from the categories above or taken during study abroad programs in Spain or Latin America.

Note: Students pursuing licensure to teach Spanish are strongly encouraged to take SPN 421 Advanced Grammar I, SPN 422 Advanced Grammar II, and SPN 451 Phonetics.

**TOTAL**  
40 sh

Spanish majors are required to study abroad for at least one semester in a program that has been approved by the university and the department. Credits earned in such a program may substitute for requirements for the major. A maximum of 16 semester hours per semester from courses taken abroad can apply to the Spanish major. Additional credits from abroad may be applied to general studies requirements, another major, or a minor as appropriate, or used as elective credit for graduation.
A maximum of four semester hours in internship credit can apply to the Spanish major.

A minor in Spanish requires 24 semester hours of courses taught in Spanish beginning with SPN 221 or higher. SPN 322 is required. A winter or summer term abroad in a Spanish-speaking country is strongly encouraged. A maximum of 12 semester hours of courses taught in Spanish abroad can apply to the minor.

A major in French or Spanish with Teacher Licensure, K-12, requires the above 40 semester hours including SPN 421, SPN 422 and SPN 451, or FRE 401 or its substitute, plus 35 semester hours of professional studies courses in education and psychology.

**Classical Studies minor:** See page 88.

**German Studies minor:** See page 193.

**Italian Studies minor:** See page 213.

**Latin American Studies minor:** See page 215.

**Middle East Studies minor:** See page 232.

### Arabic

**ARB 121. ELEMENTARY ARABIC I**

An introduction to Modern Standard Arabic and Middle Eastern culture, this course assumes no prior knowledge. Arabic sounds and the alphabet and writing system are introduced as well as very basic vocabulary and grammar. No prerequisite.

**ARB 122. ELEMENTARY ARABIC II**

The second semester of a two-semester elementary course in Modern Standard Arabic and Middle Eastern culture, the course is designed for students who have mastered reading and writing Arabic script. Focus is on developing proficiency in reading, writing, listening and speaking skills in Modern Standard Arabic. Students will be introduced to a wide vocabulary and the basic elements of Arabic grammar. Prerequisite: ARB 121 or placement at this level.

### Chinese

**CHN 121. ELEMENTARY CHINESE I**

An introduction to Chinese language and culture, this course assumes no prior knowledge. Practical, conversational usage of the language is stressed as is study of the culture of China. No prerequisite.

**CHN 122. ELEMENTARY CHINESE II**

This course is designed for students with some prior knowledge of the language and serves as a systematic review within a cultural context. Practical, conversational usage of the language is stressed as is the culture of China. Prerequisite: CHN 121 or placement at this level.

**CHN 221. INTERMEDIATE CHINESE I**

This course is designed for students who have mastered the basic concepts of the language. Speaking skills and character writing within a cultural context are further developed. Prerequisite: CHN 122 or placement at this level.

### French

**FRE 121. ELEMENTARY FRENCH I**

This course is designed for students who have never studied French before or who have had very little exposure to the language. Students learn to speak and write in the present and past tense while learning about French and Francophone cultures through music, film, tele-
vision clips, news articles, blogs, podcasts and other authentic materials. Students practice vocabulary and grammatical structures in small group and pair work activities. Proficiency goal on the ACTFL scale: Novice high. Offered every fall.

FRE 122. ELEMENTARY FRENCH II 4 sh
This course continues the development of basic French skills for students who have already had a solid introduction to French. Emphasis continues to be placed on oral and written communication in the present, past and future tenses with use of authentic materials such as music, film, television clips, news articles, blogs and podcasts. Students practice vocabulary and grammatical structures in small group and pair work activities. Communicative activities lead students from structured practice to free expression. Proficiency goal on the ACTFL scale: Intermediate low. Prerequisite: FRE 121 or placement at this level. Offered every spring.

FRE 221. INTERMEDIATE FRENCH I 4 sh
This course provides an intensive review of the grammatical structures taught in FRE 121-122 and introduces more complex linguistic structures. Increased emphasis is given to reading strategies and composition, including creative writing. Students read and comment on authentic texts treating various cultural topics, and they continue to develop speaking and listening skills through in-class pair and group work, music, film, and other media. Proficiency goal on the ACTFL scale: Intermediate mid. Prerequisite: FRE 122 or placement at this level. Offered every fall.

FRE 222. INTERMEDIATE FRENCH II 4 sh
This final course in the basic language sequence consolidates skills attained in FRE 121, 122 and 221 or the equivalent. Advanced reading, writing and speaking skills are developed through study of increasingly sophisticated cultural and literary topics. Students also attain more in-depth understanding of French phonetics via the International Phonetic Alphabet. This course is the transition course to 300-level coursework. Proficiency goal on the ACTFL scale: Intermediate high. Prerequisite: FRE 221 or placement at this level. Offered every semester.

FRE 321. FRENCH CONVERSATION 4 sh
This course offers a more focused approach to the spoken French language. Coursework is intended to improve speaking and listening skills by offering extensive practice in a variety of styles and forms. The course also helps students better understand contemporary French culture, thought and modes of expression through in-depth discussion of French and Francophone films and their cultural and historical contexts. Prerequisite: FRE 222, placement test or permission from instructor. Offered fall.

FRE 323. CURRENT EVENTS IN THE FRENCH AND FRANCOPHONE WORLD 4 sh
This course provides an in-depth look at current events in the French-speaking world. Students will examine broadcast, electronic and print media in order to familiarize themselves with the influence of the Francophone world on global society. Prerequisite: FRE 222 or placement. Offered spring.

FRE 324. FRENCH PHONETICS 4 sh
This course analyzes the sound components of spoken French. Students will learn how sounds are produced and how to imitate native speakers accurately through classroom exercises, recordings and videos. Students will engage in phonetic transcription, both from and into French and the International Phonetic Alphabet. Students will also be exposed to phonetic variations within the French-speaking world. Prerequisite: FRE 222 or placement at this level.

FRE 325. ADVANCED FRENCH GRAMMAR 4 sh
This course is an intensive review of all French grammar, including literary tenses. Through composition, translation and oral practice, as well as activities focused on discrete grammar points, the student should gain a more confident command of the French language, both written and spoken. Prerequisite: FRE 222 or placement at this level.
FRE 350. METHODS: INTRODUCTION TO LITERARY AND CULTURAL ANALYSIS 4 sh
This course provides an introduction to textual analysis in French. Students acquire the analytic tools and vocabulary necessary to interpret literary, cinematic and visual cultural productions. Special emphasis is placed on close readings of texts in order to introduce students to methods of interpretation as they situate and analyze works. Review of grammar and stylistics is also integrated into writing practice. This course is required of all French majors and minors and is a prerequisite for upper-level French courses at Elon. Prerequisite: FRE 222 or equivalent. Prerequisite for all higher numbered French courses. Offered every fall.

FRE 351. PERSPECTIVES ON EARLY FRANCE 4 sh
This course is designed to provide students with an introduction to the French literary tradition from the Middle Ages through the 17th century. Students are acquainted with major literary trends through a study of selected representative works within a unified theme (such as textual eroticism and romance, for example). The course is illustrated with visual materials, and special emphasis is placed on texts such as prose narratives, plays and poetry. Class is conducted in French, and students are expected to take an active part in class discussions. Offered every third year. Prerequisite: FRE 350.

FRE 352. PERSPECTIVES ON MODERN FRANCE 4 sh
This course offers an overview of French political, cultural and social history from the Revolution of 1789 to the present. Students explore the emergence of modern France through a study of selected works within a unified theme (such as textual eroticism and romance, for example). Students examine varied materials such as letters, literary texts, art, architecture, music and media. This course provides students with an understanding of historical events and an ability to interpret different eras within a cultural framework. Class is conducted in French, and students are expected to take an active part in class discussions. Offered every third year. Prerequisite: FRE 350.

FRE 353. THE FRANCOPHONE WORLD OUTSIDE THE HEXAGON 4 sh
This course introduces students to a selection of works from the Francophone world (such as Africa, the Caribbean, Canada and Asia). Students gain knowledge of Francophone cultures through the examination of literary and artistic productions. Class is conducted in French, and students are expected to take an active part in class discussions. Prerequisite FRE 350. Offered every third year.

FRE 361. DEFINING MOMENTS IN FRENCH CIVILIZATION 4 sh
A study of key moments in French history and their influence on world events as well as on the people, politics and institutions of France today. Topics may include the French Revolution, the Second World War, the Colonial and Post-Colonial periods. Prerequisite: FRE 350. Offered every third year.

FRE 363. THE FRENCH CINEMA 4 sh
The purpose of this course is to familiarize students with a selection of films and readings from the French-speaking world as they consider the cultural and artistic characteristics of French cinema. Students encounter French-speaking cultures “from within,” that is, from the point of view of individual filmmakers and writers. Class is conducted in French and involves pair and group discussions, weekly reading and writing assignments, as well as oral presentations and a digital project. Prerequisite FRE 350. Offered every third year.

FRE 371-79. SPECIAL TOPICS 4 sh
Topics may include advanced study of cinema, selected literary authors, periods, genres or regions. Prerequisite: FRE 222 or placement at this level.

FRE 481. INTERNSHIP 1-4 sh
The internship provides students with practical experience using French in a professional setting. It may include internships in teaching, social service, government service, business,
etc., in the U.S. or abroad. Prerequisites: At least one course above the FRE 222 level and departmental approval.

**FRE 491. INDEPENDENT STUDY**  
2-4 sh

**German**

**GER 121. INTRODUCTORY GERMAN I**  
4 sh
Students will work towards basic competency in German, both listening/reading and speaking/writing. Topics of cultural study may include: stereotypes about the Germans; likes & dislikes; student life at German universities; geography and cities; famous sites and symbols. We use a culturally-centered, project-based learning approach in our 100-level courses. Projects may include: audio dialogs using sound editing software in our language media center; digital stories created as web pages or slide shows; poster presentations; movie scripts with Web-based video creation software; written work in various genres (letters, essays, encyclopedia entries, news columns). No prerequisite. Offered fall.

**GER 122. INTRODUCTORY GERMAN II**  
4 sh
Students will expand the linguistic skills developed in German 121, with a continued focus on listening/reading and speaking/writing. Topics of cultural study may include: daily life; leisure & free time; travel; shopping. We use a culturally-centered, project-based learning approach in our 100-level courses. Projects may include: audio dialogs using sound editing software in our language media center; digital stories created as web pages or slide shows; poster presentations; movie scripts with Web-based video creation software; written work in various genres (letters, essays, encyclopedia entries). Prerequisite: GER 121 or placement at this level. Offered spring.

**GER 221. INTERMEDIATE GERMAN I**  
4 sh
In addition to reaching intermediate competency in listening/reading and speaking/writing, students will study more in-depth cultural topics. For example: German history; German cities; German society; German politics and current events; German film, art, music, literature. In the 200-level courses we deepen our culturally-centered, project-based learning approach. In addition to the type of projects employed in the 100-level courses, projects in German 221 and 222 may include: cross-disciplinary work connected to students’ other courses; additional genres of written work (news columns, opinion pieces); travel brochures; oral presentations. Prerequisite: GER 121 or placement at this level. Offered fall.

**GER 222. INTERMEDIATE GERMAN II**  
4 sh
Language study focuses on problems from earlier courses and nuanced grammatical subjects. Cultural study is based on guided research and presentations on such topics as: Nazi propaganda; the postwar era in West Germany; daily life in East Germany; the middle ages; architecture and statues; 20th-century art. In addition to the type of projects employed in the 100-level courses, projects in German 221 and 222 may include: cross-disciplinary work connected to students’ other courses; additional genres of written work (news columns, opinion pieces); travel brochures; oral presentations. German 222 is the minimum requirement for study abroad in Heidelberg. Prerequisite: GER 221 or placement at this level. Offered spring.

**GER 321. DEVELOPING FLUENCY**  
4 sh
A heavy focus on reading, writing, listening and speaking skills. We will also look at literature, film, news media, and other cultural products. Intensive grammar review based on each student’s individual needs. Prerequisite: GER 222 or placement at this level.

**GER 371-74. SPECIAL TOPICS**  
4 sh
Topics may include advanced study in culture or literature. Prerequisite: GER 222.

**GER 491. INDEPENDENT STUDY**  
1-4 sh
Offered based on student demand and instructor availability.
**GER 499. INDEPENDENT RESEARCH**

1-4 sh

Offered after a formal application process, and in conjunction with a university-approved research program. Dependent on instructor availability. Recent projects have included an Elon College Fellows thesis on Holocaust literature; a Communications and German Studies project on the portrayal of Germans in social media; and an exploration of novelist Günter Grass's 2006 memoir Beim Häuten der Zwiebel (Peeling the Onion).

**Greek**

**GRK 121. ANCIENT AND BIBLICAL GREEK I**

4 sh

In this course, students will learn to read the language of Homer and Plato. Intensive focus on grammar, vocabulary and Greek reading skills. Supplementary readings from the Septuagint and New Testament. No prerequisite.

**GRK 122. ANCIENT AND BIBLICAL GREEK II**

4 sh

Continuation of GRK 121. Students will complete the study of ancient Greek grammar and syntax while continuing to learn vocabulary and dialect forms. Readings include Homer, Herodotus, lyric and tragic poets and the Greek Bible. Prerequisite: GRK 121.

**Italian**

**ITL 121. ELEMENTARY ITALIAN I**

4 sh

This course is designed for students with little or no prior experience in the language. Special emphasis is placed on active communication to develop oral and comprehension skills. Students will learn to converse and write about daily routines, likes and dislikes in the present, and commence usage of past tenses. Factual information about the nature of daily life and routines in Italian culture will also be acquired. Proficiency goal on the ACTFL scale: Novice high. No prerequisite.

**ITL 122. ELEMENTARY ITALIAN II**

4 sh

This course continues development of skills in basic structures within increasing cultural and literary competence. Special emphasis continues to be placed on development of oral and comprehension skills. Students will learn to discuss topics of a personal nature in present, past and future, and to express opinions on a limited range of topics. Knowledge of Italian history and culture is also extended. Proficiency goal on the ACTFL scale: Intermediate low. Prerequisite: ITL 121 or placement at this level.

**ITL 221. INTERMEDIATE ITALIAN I**

4 sh

This course provides intensive development of all language skills. Increased emphasis is given to reading strategies and composition. Students will be able to describe, analyze, hypothesize and express opinions on a widening range of cultural topics. Proficiency goal on the ACTFL scale: Intermediate mid. Prerequisite: ITL 122 or placement at this level.

**ITL 222. INTERMEDIATE ITALIAN II**

4 sh

This final course in the basic language sequence consolidates skills attained in ITL 121, 122 and 221, or the equivalent. Advanced reading, writing and speaking skills are developed through study of increasingly sophisticated cultural and literary topics. Proficiency on the ACTFL scale: Intermediate high. Prerequisite: ITL 221 or placement at this level.

**ITL 321. ITALIAN CONVERSATION**

4 sh

This course offers an intensive training in oral expression and develops abilities in everyday spoken communication with a strong importance given to vocabulary and speaking proficiency. Includes grammar review. Prerequisite: ITL 222 or placement at this level.

**Japanese**

**JPN 122. ELEMENTARY JAPANESE II**

4 sh

This course is designed for students with some prior knowledge of the language and serves as a systematic review within a cultural context. Linguistic elements of the language are introduced with practical, conversational usage of the language stressed. More Kanji
characters are taught to help develop reading and writing skills. Prerequisite: JPN 121 or permission of instructor.

**JPN 221. INTERMEDIATE JAPANESE I**

This course is designed for students who have mastered some basic concepts of the language. Advanced linguistic skills are introduced with concepts to help develop oral communication within a cultural context. Kanji characters are continually introduced to enhance advanced reading and writing skills. Prerequisite: JPN 122 or 210, four or more years of high school Japanese or permission of instructor.

**JPN 222. INTERMEDIATE JAPANESE II**

This final course in the basic language sequence consolidates skills attained in JPN 121, 122 and 221, or the equivalent. Advanced reading, writing and speaking skills are developed through study of increasingly sophisticated cultural and literary topics. Proficiency on the ACTFL scale: Intermediate high. Prerequisite: JPN 310 or 221, or placement at this level.

**Latin**

**LAT 121. ELEMENTARY LATIN I**

This course provides a survey of elementary Latin grammar and syntax while giving some practice in reading and writing Latin. During the study of the language, students will be introduced to the culture of the Romans through the study of their language. No prerequisite.

**LAT 122. ELEMENTARY LATIN II**

This course in the continuation of LAT 121 and completes the study of Latin grammar and syntax while providing more in-depth practice in the reading of ancient authors. Prerequisite: LAT 121 or 170, or placement at this level.

**Spanish**

**SPN 117. SPANISH IN COSTA RICA: LEVEL I**

This course introduces students to the Spanish language through the development of the oral communication skills of speaking, listening and culturally appropriate courtesy requirements, plus some reading and writing skills. For students who have had little or no previous study of Spanish. No credit will be given to students who have already completed SPN 122 or higher at Elon. Upon return to campus, students must be evaluated for correct placement in Elon’s Spanish sequence. Offered in Costa Rica only.

**SPN 119. ELEMENTARY SPANISH CONVERSATION**

In this course, students practice basic oral communication skills (speaking and listening). Correct pronunciation is also emphasized. Prerequisite: SPN 110 or 120 or 121, one year of high school Spanish or permission of instructor. No credit will be given to students who have completed SPN 122 or higher.

**SPN 120. ELEMENTARY SPANISH REVIEW**

This course is designed for students who have some previous experience in the language but need a refresher course before beginning study at the 122 level. Proficiency goal on the ACTFL scale: Novice high. Prerequisite: Equivalent of at least one or two semesters of high school Spanish.

**SPN 121. ELEMENTARY SPANISH I**

This course is for true beginners with no prior experience in the language. Special emphasis is placed on active communication, to develop oral and comprehension skills. Students will learn to converse and write about daily routines, likes and dislikes in the present. Factual information about the nature of daily life and routines in Hispanic cultures and simple literary selections will also be introduced. Proficiency goal on the ACTFL scale: Novice high. No prerequisite: Students with prior study of Spanish may not take this course for credit; such students should take SPN 120.
SPN 122. ELEMENTARY SPANISH II
This course continues development of skills in basic structures within increasing cultural and literary competence. Special emphasis continues to be placed on development of oral and comprehension skills. Students will learn to discuss topics of a personal nature in present, past and future, and to express opinions on a limited range of topics. Knowledge of Hispanic history and cultures is also extended. Proficiency goal on the ACTFL scale: Intermediate low. Prerequisite: SPN 120 or 121, or placement at this level.

SPN 123. ELEMENTARY SPANISH FOR EDUCATORS
This course continues development of basic reading, writing, speaking and listening skills, and can substitute for SPN 122 to complete the language proficiency requirement. The cultural topics and vocabulary studied in this class are intended to help future and current teachers communicate with their Spanish-speaking parents and students. Students in this course will practice their Spanish in the community. Proficiency goal on the ACTFL scale: Intermediate low. Prerequisite: SPN 120, 121 or placement at the 122 level.

SPN 125. INTENSIVE SPANISH LANGUAGE AND CULTURE IN YUCATAN
This course combines intensive Spanish language instruction at the beginning level with cultural content also taught in Spanish. It includes daily language instruction, cultural activities and presentations, excursions to ancient Maya archaeological sites and contemporary Maya communities, and home stays. The course is the equivalent of SPN 120 and SPN 122 combined, and students who successfully complete the course will meet the Elon Language Proficiency Requirement. Proficiency goal: Intermediate low. Prerequisite: At least two years of high school Spanish or placement at the SPN 120 level. Students who have completed SPN 122 or higher at Elon are NOT eligible to take this course. Offered abroad in even-numbered summers.

SPN 127. SPANISH IN COSTA RICA: LEVEL II
This course reviews basic Spanish grammar and develops the students’ oral communication, listening, reading and writing skills while learning about Costa Rican culture. For students who have had some previous study of Spanish. Prerequisite: SPN 121 or SPN 120 or appropriate placement. No credit will be given to students who have already completed SPN 222 or higher at Elon. Upon return to campus, students must be evaluated for correct placement in Elon’s Spanish sequence. Offered in Costa Rica only.

SPN 217. SPANISH IN COSTA RICA: LEVEL III
For students who have mastered the basic concepts of the language. Continues the students’ development of their oral communication, listening, reading and writing skills while learning about Costa Rican culture. Prerequisite: SPN 122 or appropriate placement. No credit will be given to students who have already completed a 300-level Spanish course at Elon or at another university. Upon return to campus, students must be evaluated for correct placement in Elon’s Spanish sequence. Offered in Costa Rica only.

SPN 221. INTERMEDIATE SPANISH I
This course, for students who have completed SPN 122 or three or four years of high-school Spanish, provides intensive development of all language skills. Increased emphasis is given to reading strategies and composition. Students will be able to describe, analyze and express opinions on a widening range of topics. Proficiency goal on the ACTFL scale: Intermediate mid. Prerequisite: SPN 122 or placement at this level.

SPN 222. INTERMEDIATE SPANISH II
This final course in the basic language sequence consolidates skills attained in SPN 121, 122 and 221, or the equivalent. Reading, writing and speaking skills are developed through study of increasingly sophisticated cultural and literary topics. At the end of the course, students should be able to use complex grammatical structures, including the subjunctive, and will be prepared to succeed in a variety of classes at the 300 level. Proficiency goal on the ACTFL scale: Intermediate high. Prerequisite: SPN 221 or placement at this level.
SPN 227. SPANISH IN COSTA RICA: LEVEL IV 4 sh
For students with the basic concepts of the language, this course continues their development of oral and written communication skills at the intermediate level, placing special emphasis on intensive grammar review and practice in everyday communication situations. Prerequisite: SPN 221 or appropriate placement. No credit will be given to students who have already completed SPN 350 or higher at Elon or at another university. Upon return to campus, students must be evaluated for correct placement in Elon's Spanish sequence. Offered in Costa Rica only.

SPN 237. SPANISH REVIEW IN COSTA RICA: LEVEL V 4 sh
Emphasizes intensive grammar review and involves practice in everyday communication situations. Designed for students who need to review the intermediate level content and continues the students' development of oral and written communication skills. Prerequisite: SPN 221 or appropriate placement. No credit will be given to students who have already completed SPN 350 or higher at Elon or at another university. Upon return to campus, students must be evaluated for correct placement in Elon's Spanish sequence. Offered in Costa Rica only.

SPN 316. ADVANCED PRACTICE IN SPANISH THROUGH FILM 4 sh
This course will develop and expand students' knowledge of Spanish language while studying cultural, historic and socio-political issues of the Spanish-speaking world. Films will provide a context for Spanish speaking culture, history and language. All course content, including films, written assignments and class discussions, will be in Spanish. Prerequisite: SPN 222 or permission of instructor. Offered winter term, every other year.

SPN 317. ADVANCED SPANISH: COSTA RICAN LANGUAGE & CULTURE: LEVEL VI 4 sh
For students who have completed the beginning and intermediate college level courses and are ready for advanced-level cultural study in Spanish. Continues the students' development of all language skills while focusing on topics about the history, literature and culture of Costa Rica. Includes significant reading and writing in Spanish. Prerequisite: Placement at this level as evaluated by Costa Rican instructors. Can be used as an elective in the Spanish major. Offered in Costa Rica only.

SPN 318. ADVANCED SPANISH AND THE MAYA WORLDS 4 sh
This course will focus on developing reading, writing and conversational skills at the intermediate-high to advanced-low level while focusing on Maya cultures in Mexico. Cultural topics will include the classic Maya civilizations, the Caste War of the 19th century, the contributions of the Maya labor force to the economic development of the region, and the importance of the Maya in the present day events and cultures in the states of Chiapas and Yucatan, Mexico. All readings, written assignments and course content in Spanish. The course includes presentations in Spanish by on-site specialists and travel to museums, cultural sites, archeological sites and contemporary Maya communities. Offered abroad only. Prerequisite: Completion of or enrollment in SPN 222 or higher in the spring semester prior to the course and sophomore standing by the time of enrollment in the course or permission of instructor.

SPN 321. CONVERSATION 4 sh
Conversational Spanish involves intensive practice in everyday communication situations with emphasis on vocabulary and speaking proficiency. Includes grammar review. Prerequisite: SPN 222 or placement at this level.

SPN 322. COMPOSITION 4 sh
Intensive practice in written expression focusing on refinements in structure, vocabulary expansion and a variety of writing tasks including preparation for formal academic writing. Includes intensive grammar review. Prerequisite: SPN 222 or placement at this level.

SPN 323. TODAY'S SPANISH-SPEAKING WORLD THROUGH MEDIA 4 sh
This course explores some of the current affairs and issues in the Spanish-speaking world. Students will research and report on significant issues of interest in newspapers, television broadcasts, literature, film, historical documents, testimony, Internet, blogs, radio,
podcasts, etc. from Spain and Spanish-American countries, thus gaining a deeper knowledge of the modern day challenges impacting Hispanics. Prerequisite SPN 322. Taught in Spanish. Offered spring.

**SPN 333. SPANISH CIVILIZATION**

A study of the history, geography and people of Spain from prehistoric times to the present, which emphasizes Spain's many contributions to Western civilization. Prerequisite: SPN 322 or permission of instructor. Not always offered yearly; check with the department.

**SPN 334. LATIN AMERICAN CIVILIZATION**

This course examines Latin American geography, history, art, architecture, music, government, economy, ethnicity, languages and culture, including a study of each country. Prerequisite: SPN 322 or placement at this level. Not always offered yearly; check with the department.

**SPN 335. LATINOS IN THE U.S.**

This course is an interdisciplinary study of the diversity of the culture, history, and social, economic and political situation of the Latino population in the United States. We will approach the subject through literature, film and music, through current articles from various disciplines and through direct contact with the local Latino population. This course continues to develop student's language skills in Spanish. Course conducted in Spanish. Prerequisite: SPN 322 or equivalent or instructor's permission and successful completion of the sophomore writing assessment. Readings in Spanish and English. Not always offered yearly; check with the department.

**SPN 350. INTRODUCTION TO LITERARY ANALYSIS IN SPANISH**

This course is designed to teach students basic techniques in the analysis of literary texts, as well as terminology and concepts used in the close reading and understanding of four literary genres: narrative, poetry, drama and the essay. Readings from both Latin America and Spain will be studied. Students will practice using literary tools as they read, discuss and compose written analyses of selected texts, thereby preparing them for more advanced courses in Spanish and Spanish American literature. Prerequisite: SPN 322, at least four years of high school Spanish or instructor's permission.

**SPN 351. SURVEY OF PENINSULAR LITERATURE**

This overview of literature from Spain studies literary texts of several genres and includes a representative range of historical periods and cultural movements. Prerequisite: SPN 350, or permission of instructor. Not always offered yearly; check with the department.

**SPN 352. SURVEY OF LATIN AMERICAN LITERATURE**

This overview of Latin American literature in Spanish studies literary texts of several genres and includes a representative range of historical periods, cultural movements and countries. Prerequisite: SPN 350 or permission of instructor. Not always offered yearly; check with the department.

**SPN 353. STUDIES IN PENINSULAR LITERATURE**

This course provides in-depth study of a particular genre, work, author, cultural element or other literary topic from Spain. Course may be repeated as long as the theme is varied. Prerequisite: SPN 350, or permission of instructor. Not always offered yearly; check with the department.

**SPN 354. STUDIES IN LATIN AMERICAN LITERATURE**

This course provides in-depth study of a particular genre, work, author, regional theme or other topic from Latin American literature. Course may be repeated as long as the theme is varied. Prerequisite: SPN 350, or permission of instructor. Not always offered yearly; check with the department.

**SPN 371-79. SPECIAL TOPICS**

Topics may include advanced study of language, cinema, selected literary authors, periods, genres or regions. Prerequisite: SPN 322 or permission of instructor.
SPN 421. ADVANCED GRAMMAR I 4 sh
This course is an intensive study of the most problematic parts of the Spanish verb system. Particular attention will be given to the two past tenses (preterit and imperfect), “ser” versus “estar” and the subjunctive. Composition, translation and oral practice will all be used to increase grammatical accuracy. Prerequisite: SPN 322 and an additional four semester hours of 300-level Spanish courses or permission of instructor. Not always offered yearly; check with the department.

SPN 422. ADVANCED GRAMMAR II 4 sh
A continuation of SPN 421, but 421 is not a prerequisite for this course. Topics will include object pronouns and the dative of interest construction; other uses of pronouns; the passive voice and substitute constructions; impersonal constructions; relative clauses; adverbs and adverbial clauses; and prepositions, with particular attention to por and para. The course will include readings, compositions, research projects and class presentations. Prerequisite: SPN 322 and an additional four semester hours of 300-level Spanish courses or permission of instructor. Recommended, but not required: SPN 421. Not always offered yearly; check with the department.

SPN 451. PHONETICS 4 sh
This course is designed to give students an in-depth understanding of the phonetic system of the Spanish language and to perfect the student’s pronunciation. Students will learn how sounds are produced and will learn to imitate native speakers accurately through a variety of classroom exercises, recordings and videos. Through phonetic transcription and listening exercises, students will learn to hear accurately and to distinguish between similar sounds. Students will also study with wide phonetic variations that occur within the Spanish-speaking world. Prerequisite: SPN 322 and an additional four semester hours of 300-level Spanish courses or permission of instructor. Not always offered yearly; check with the department.

SPN 461. TRANSLATION 4 sh
Designed to help advanced students refine their language skills and express themselves more accurately in Spanish by focusing on form through intensive translation practice. Includes practice in both Spanish-to-English and English-to-Spanish translations, incorporating concepts such as cognates and false cognates, metaphorical language, different registers and the importance of maintaining the tone and register of the original text in the translation. Different problems inherent in the translation process are discussed. Prerequisite: SPN 322 and an additional four semester hours of 300-level Spanish courses or permission of instructor. Recommended but not required: SPN 421. Not always offered yearly; check with the department.

SPN 465. COLLOQUIUM ON HISPANIC STUDIES 4 sh
This capstone course focuses on the critical study and analysis of specific historical moments, selected works, topics or themes in literary and cultural history. Course content will alternate between peninsular and Latin American topics, or combine readings from each area. As part of their senior assessment, students will complete original research on a topic, present their findings orally to the class and department members and write a research paper on the same topic in Spanish. In order to graduate with a Spanish major, students must pass this course with a C or better. Prerequisite: Two courses beyond the 322 level, and junior or senior standing. Offered fall semester only.

SPN 481. INTERNSHIP 1-4 sh
This course provides students with practical experience using Spanish in a professional setting and may include internships in teaching, social service, government service, business, etc., in the U.S. or abroad. Prerequisite: At least one course above the SPN 222 level, and departmental approval.

SPN 491. INDEPENDENT STUDY 2-4 sh
General Studies

**Director:** Associate Professor Coker

The program gives breadth as well as depth to a college education. It provides students with opportunities to see the broad view of human civilization, experience great ideas and art, and learn the science and math skills that no contemporary leader or individual can be without.

Through training in writing and other communication skills, as well as in learning to work independently, to think critically and constructively, to handle quantitative data, to respect cultures worldwide and to develop habits of responsible leadership, this program develops the whole person. The General Studies program is a major focus of a college career from beginning to end — challenging students, preparing them for both leadership and independent thought and, most of all, deepening and enriching their lives.

**GST 110. THE GLOBAL EXPERIENCE** 4 sh

This first-year seminar examines public responsibility in a global context. It explores some of the implications created by cultural and natural diversity and the possibilities for human communication and cooperation within this diversity. The course emphasizes student and faculty creativity through active and collaborative learning. The seminar is writing intensive. First-year students only. Offered fall and spring.

**GST 115. PUBLIC SPEAKING** 2 sh

Students learn principles for speaking in public settings with significant in-class presentation and out-of-class topical research. The course focuses on the structure and effective delivery of ideas, use of language, supporting evidence, reasoning and emotional appeals, diction, pronunciation and nonverbal communication.

**GST 212. WOMEN, MEN AND SOCIETY** 4 sh

This course examines the major issues that affect women and men today from a feminist perspective. Interdisciplinary synthesis of theories, methods and materials from sociology, anthropology, psychology, philosophy, history, religion and political science will be emphasized. The course serves as an introduction to women's/gender studies. Counts toward Society requirement.

**GST 218. KAFKA AND THE KAFKAESQUE** 4 sh

Offered in English, this course partially fulfills General Studies requirements and counts towards the German Studies minor. We will engage Kafka's *The Trial* and works by other artists in various genres. Students will work on a semester-long project to locate the Kafkaesque in a single work of any genre: film, visual art, literature, drama, etc. Offered spring.

**GST 225. PERICLEAN SCHOLARS** 4 sh

In this foundational course students develop a mission statement for the class and research in depth the issues and topics related to that mission. Emphasis is placed on becoming deeply familiar with the multiplicity of factors that surround the group's chosen issue and developing individual and group goals (short and long term). They examine the process of and begin to understand how to be effective agents of social change. Offered fall semester. Counts toward Civilization or Society requirement.

**GST 243. CULTURE OF ANCIENT ROME** 2 sh

This course will examine first the culture of the Etruscans, the Italian civilization that had a great influence on Roman culture. We will next turn to Rome itself, looking at the development of the city from its founding to its decline in the fourth century CE. The picture of Roman life will be augmented by studying Pompeii, buried and preserved by the eruption of Mount Vesuvius in 79 CE. Counts toward Classical Studies minor. Partially fulfills the Liberal Studies requirement in Expression, Civilization or Society.
GST 264. LOVE, GERMAN STYLE: A ROMANTIC INTRODUCTION TO GERMAN CULTURE  
4 sh
In this introduction to German culture and history, taught in English, we will examine love through the lens of German texts and media. This will provide access to larger cultural, political, religious, psychological, sexual, and identity discourses in German society. Special emphasis on depictions of gender roles, personal and social identities, love as protest, representations of men and women, interpersonal and multicultural relationships, love as a stabilizing and/or destructive force, and other topics.

GST 265. CULTURE OF ANCIENT GREECE  
2 sh
This course examines the culture of the ancient Greeks by focusing on their urban centers, from their antecedents in the Bronze Age to their development in the Hellenistic Period after Alexander the Great. Athens will serve as the primary city for study, and we will examine its history, its political, artistic and physical development, and its religious practices and settings. In addition, we will discuss the nature of select other Greek cities and religious sanctuaries. Counts toward Classical Studies minor. Partially fulfills the Liberal Studies requirement in Expression, Civilization or Society.

GST 260-69. CULTURE COURSES
These courses provide contemporary and historical perspectives on various nations. They are taught in English. Specific topics vary but include history, language, arts, business, family, food and religion. Offered fall and spring. Counts toward Civilization, Expression or Society requirement.

GST 260 CULTURE OF JAPAN  
2 sh
GST 261 CULTURE OF CHINA  
2 sh
GST 263 CULTURE OF SPAIN/LATIN AMERICA  
2 sh
GST 267 CULTURE OF EGYPT  
2 sh
GST 281 THE LIBERAL ARTS FORUM  
2 sh
Students will work with the Forum, a student-run and SGA-funded organization, to select speakers, host their visits and prepare for conversations with them through reading, writing papers, making presentations and joining discussions. Offered fall.

GST 282. THE LIBERAL ARTS FORUM  
2 sh
See description for GST 281. Offered spring.

GST 300-499. ADVANCED INTERDISCIPLINARY SEMINARS
These seminars are the capstone of the General Studies program. Students work with faculty to examine an issue or topic from multiple viewpoints. The subjects of these seminars are chosen by individual faculty members and vary from semester to semester. More than 25 different topics are offered each academic year. The diverse topics reflect the expertise and interests of faculty from across the campus and allow students a wide range of choices. These courses require advanced critical thinking skills: students must weigh multiple opinions, evaluate theoretical and ethical positions and define and defend their own personal positions. Taken in the third or fourth year of study, these seminars are writing intensive, requiring students to write frequently and in a variety of ways. Prerequisite: Open to students in the third or fourth year of study. Students who have questions about their eligibility should see the director of General Studies.

Selected recent seminars
These topics may or may not be offered in the future.

GST 303. THE CULTURE OF ROCK  
4 sh
This course, as the title indicates, examines the “culture of rock.” Specifically, it is concerned with the evolution of rock music and subcultures centered upon that music. In particular, the course examines the music and nascent youth culture of the 1950s, the counterculture of the 1960s, the reggae and punk subcultures of the 1970s, and beyond. This course is reading and writing intensive. Open to students in the third or fourth year of study.
GST 307.  THE FUTURE NOW  4 sh

What does the future hold for humankind? This course explores the social, economic and political implications of the future now being projected by experts in all fields of study. Learn how to recognize and work to adapt to expected future realities in an age in which nested networks influence everything (Facebook, the interstate highway system, sustainable resources, etc.) to a greater degree than ever before. Build new paradigms, engage in an intriguing quest for foresight and prepare yourself to work toward the best future possible as you synthesize a better understanding of the impact of accelerating change. This course is writing intensive. Open to students in the third or fourth year of study.

GST 326.  HUMAN SEXUALITY  4 sh

This course provides the comprehensive study of biological, cultural and psychosocial sexuality throughout the life cycle, including male and female physiology, reproduction, contraception, sexual identity, gender roles, intimate relationships, sexually transmitted diseases and variant sexual behaviors. This course is writing intensive. Open to students in the third or fourth year of study.

GST 338.  AMERICAN ADOLESCENCE  4 sh

This interdisciplinary seminar explores the male and female experience of coming of age in America. We will study major psychological and sociological theories of adolescence and examine how the transition from childhood to adult life is represented in literature and film. Counts toward the women’s studies/gender studies minor. This course is writing intensive. Open to students in the third or fourth year of study.

GST 359.  MEDIA AND THE MIDDLE EAST  4 sh

This course examines the ways in which the Middle East is covered and portrayed in both Western and non-Western media. It aims to broaden students’ perspectives on a critical part of the world and to deepen their understanding of complex problems they read and hear about daily. By drawing on both contemporaneous and historical accounts, the course will encourage students to examine the diversity of views, each of them rooted in a different history and a different culture. The course will be taught in a seminar fashion and will require substantial reading, not only in contemporary journalism but also history, religion, cultural studies and international relations. This course is writing intensive. Open to students in the third or fourth year of study.

GST 363.  AT DEATH’S DOOR  4 sh

This course is an exploration of what the sciences and humanities can tell us about the end of life – stopping short of exploring the afterlife. Together we will shape questions and seek explanations that expand our understandings about how death approaches and how we approach death. This course is writing intensive. Open to students in the third or fourth year of study.

GST 364.  TECHNOLOGY AND SOCIETY  4 sh

This course will examine the role of invention and technology in society. Synthesizing elements of engineering, computer science, economics, history, business and sociology, this course investigates technology both as a reflection of and as a catalyst for cultural identity and social change. Recent topics have included virtual worlds, artificial life, cyborgs, the do-it-yourself hacker ethic, posthumanism, resistance to change and the diffusion of innovations. Using a combination of reflective and researched essays, live action role playing games, video games, films, simulations and presentations, students will reconcile their own technology experiences with the common portrayal of technology in history and in contemporary culture. This course is writing intensive. Open to students in the third or fourth year of study.

GST 369.  MEN AND MASCULINITY  4 sh

This course will take an in-depth look at how various cultures (Western and non-Western) have defined masculinity. Sources of investigation will include literature, the media and social institutions such as the family, religion, politics, leisure and others. The course will explore how men conceptualize their bodies and spirits, and how they practice relationships
with other men, women, parents and progeny. Counts toward the women’s studies/gender studies minor. This course is writing intensive. Open to students in the third or fourth year of study.

GST 406. PERSPECTIVES ON WOMEN’S HEALTH 4 sh
This course will identify a broad range of health issues that are either unique to women or of special importance to women. The roles that women play as providers and consumers of health care will be examined. The student will be provided the opportunity to explore healthcare issues of women from adolescence through old age. The interface of gender, socioeconomic advantage/disadvantage and minority status will be studied. A primary objective of this course is to enable the student to become an informed consumer of health-care services. This course is writing intensive. Open to students in the third or fourth year of study.

GST 412. FREEDOM OF EXPRESSION: CONTEMPORARY FIRST AMENDMENT ISSUES 4 sh
Freedom of expression is a particularly relevant issue during times of war. The course will explore the tension between the public’s right to know and issues of national security. The course will address such issues as hate speech, pornography and campaign finance reform in terms of the value of the speech and benefits and harms to society. Students will also look specifically at new media issues such as libel, privacy and obscenity in the digital age. Students will explore these contemporary First Amendment speech and press issues from a legal, historical, economic and political standpoint. The course will begin with First Amendment theory and history, which will provide a basis for effective discussion of contemporary problems. Those on the fringe of this issue who challenge the traditional way of thinking about freedom of speech will take a central role in this course. This course is writing intensive. Open to students in the third or fourth year of study.

GST 416. WEALTH AND POVERTY 4 sh
This course will focus on the profound disparity between people who live in wealth and people who live in poverty at the beginning of the 21st century. Particular attention will be paid to moral responsibility and accountability of people in the First World to the problems of global inequality. This course is writing intensive. Open to students in the third or fourth year of study.

GST 424. SUBCULTURE, STYLE AND MEANING 4 sh
This course gives us opportunities to explore theories about subcultures and how they help determine individual and group identity. We will delve into both punk and reggae subcultures in order to see how subcultures are manifested in our world, and how they attempt to subvert the dominant culture. We will also explore a new field of studies, one highly contested as it attempts to develop its terms and theories, post-subcultural studies. We will see what intellectual, social and historical forces led to the creation of this new area, how we can examine our own world and identity in relationship to these new theories. Ultimately, we will discuss how we make and communicate meaning through style. This course is writing intensive. Open to students in the third or fourth year of study.

EXPERIENTIAL LEARNING 1 unit
The Experiential Learning Requirement (ELR) asks students to practice close observation of the world around them and to reflect insightfully on those observations. Exposure to diversity helps students see the interrelationships between academic studies and other experiences. The requirement may be met through one of the following ways: (1) field-based courses: study abroad, internships/co-ops, practicums and student teaching; (2) independent research conducted under the direction of a professor; (3) 40 hours of pre-approved service/volunteer activities (see Kernodle Center for Service Learning and Community Engagement); (4) 40 hours of pre-approved leadership activities (see Leadership Development Office) and (5) 40 hours of pre-approved individualized learning activities (see Career Center).
The Geographic Information Systems (GIS) minor is designed to prepare students with the basic training necessary to enter the rapidly expanding field of geographic information science. Employment opportunities are limitless for students who are proficient with this interdisciplinary tool. The U.S. Department of Labor has listed geospatial technologies like GIS as one of the three most important high growth industries in the 21st century. Well-qualified GIS specialists are sought in the areas of business, disaster mitigation, economics, education, emergency management, environmental studies, homeland security, law enforcement, physical sciences, political campaign management, public policy research and analysis, transportation, and urban development and planning. The minor provides students with fundamental knowledge and skills in GIS, and opportunities to explore application of these skills in courses selected from a wide variety of disciplines. Students are given hands-on experience with state-of-the-art computer programs and software.

This minor includes courses from the business administration, computing sciences, economics, history and geography, political science, public administration and environmental studies departments. There are two components to the curriculum: a set of core courses required of all students enrolled in the program and a set of elective courses that permit exploration of disciplinary courses that use GIS and/or development of individual research projects or internships in GIS.

A minor in Geographic Information Systems requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENS/GEO 250</td>
<td>Introduction to Geographic Information Systems</td>
<td>4 sh</td>
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<tr>
<td>GEO 356</td>
<td>Introduction to Remote Sensing</td>
<td>4 sh</td>
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<tr>
<td>GEO 460</td>
<td>Advanced Geographic Information Systems</td>
<td>4 sh</td>
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<tr>
<td>Two discipline-specific courses from:</td>
<td>8 sh</td>
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<tr>
<td>CSC/ISC 111</td>
<td>Data Science and Visualization</td>
<td></td>
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<tr>
<td>GEO 121</td>
<td>Global Physical Environments</td>
<td></td>
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<tr>
<td>ENS 111/113</td>
<td>Introduction to Environmental Science and Lab</td>
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<tr>
<td>PUB 334</td>
<td>GIS Applications for Administration and Planning</td>
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<tr>
<td>PUB 433</td>
<td>Urban Politics</td>
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<tr>
<td>MKT 416</td>
<td>Global Marketing</td>
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<tr>
<td>ECO 440</td>
<td>Urban Economics and Planning</td>
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TOTAL: 20 sh

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Geography

Coordinator: Professor H. Frontani
Associate Professor: Xiao
Assistant Professor: R. Kirk

Geography explores how location affects societies, economics, politics, culture and ecosystems. How do we analyze, describe and construct boundaries, both natural and human, which we then impose on the physical and intellectual worlds we live in? The study of
geography is much more than maps. It includes study of both the natural world and the varied patterns of human life on both the macro and micro scales.

Graduates with training in geography are sought as geographic information systems (GIS) specialists to work with GIS computer mapping software and related technology for government at the local, state or federal level as well as for a wide variety of businesses and corporations; regional specialists to work for the Central Intelligence Agency, foreign service, Peace Corps or community activist organizations; business, economic and population geographers to work for insurance companies, in real estate, for federal agencies such as the U.S. Census Bureau or to work in market-oriented businesses; environment and recreation specialists to work for botanical gardens, the U.S. Forest Service, the U.S. Park Service or parks and recreational agencies; and teachers and map librarians to work at elementary or secondary schools or at universities.

Several geography courses count toward area concentrations in the International Studies major and the society and environment concentration in the Environmental Studies major. Our GIS labs offer opportunities for hands-on learning and to obtain the latest computer mapping and spatial analysis skills. Gamma Theta Upsilon, the international honor society in geography, has a campus chapter, and minors in geography and GIS are offered at Elon.

**A minor in Geography requires the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GEO 121</td>
<td>Global Physical Environments</td>
<td>4 sh</td>
</tr>
<tr>
<td>GEO 131</td>
<td>The World’s Regions</td>
<td>4 sh</td>
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<td></td>
<td><strong>Choose one course from the following:</strong></td>
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<tr>
<td>ENS 111/113</td>
<td>Introduction to Environmental Science and Lab</td>
<td>4 sh</td>
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<tr>
<td>PHY 103</td>
<td>Introduction to Geology</td>
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<td>POL 141</td>
<td>International Relations</td>
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<td></td>
<td>Any 200-level GEO course</td>
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<td></td>
<td>Eight semester hours of GEO electives at 300-400 level</td>
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**GEO 121. GLOBAL PHYSICAL ENVIRONMENTS**

Students will examine the processes that control the spatial distribution of climate, vegetation, soils and landforms. Topics include Earth-sun geometry, global energy balance, hydrology, tectonics, weathering and mass wasting, climatic classification and climographs, arid land and coastal and fluvial geomorphology. Focus will be on the Earth as the home of humans and the impact of humans on their environments. Offered fall.

**GEO 131. THE WORLD’S REGIONS**

This survey of the regions of the world emphasizes place names and environmental and human characteristics which provide both the common traits and the distinctive characteristics of different places. Students analyze change, problems, potentials and alternative futures and use traditional and electronic data sources, atlases and methods of data presentation. Offered fall and spring.

**GEO 250. INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS**

In this course, the student will be introduced to the concept of visualizing, exploring and analyzing data geographically. The student will obtain hands-on experience of display, analysis and presentation of mapping functions using the latest ArcGIS software. Assignments will be geared toward environmental management and decision making. Cross-listed with ENS 250. Offered fall and spring.
GEO 310. DEVELOPMENT AND THE ENVIRONMENT IN LATIN AMERICA, AFRICA AND ASIA 4 sh
This course is concerned with environmental issues primarily in “developing” countries. This course will provide a forum for discussing and analyzing the geopolitics of international environmental conservation programs often devised in wealthier countries but applied in the “third world,” as well as the social and environmental consequences of large-scale and small-scale development projects.

GEO 320. AFRICA’S PEOPLE AND ENVIRONMENTS 4 sh
This course surveys the physical, cultural and political-economic geography of Africa with an emphasis on human–environment relationships. Important themes include the diversity of people (ethnicity, gender and religion), social unrest, refugees, AIDS, drought and famine, urbanization, endangered species, wildlife conservation and parks. Students may participate in an experiential learning project. Counts toward African and African-American studies minor. Offered in the spring of even-numbered years.

GEO 345. GLOBAL ENVIRONMENTAL CHANGE 4 sh
This course explores the physical and human geographical aspects of global environmental change, focusing on the effects of past climatic changes upon present landscapes, historic short-term fluctuations in temperature and precipitation, possible explanations for climatic change over time, the impact of human action on the Earth and its environmental systems, and the projection of future environmental changes. This course provides students with an understanding of the latest scientific investigations and technology in environmental studies.

GEO 346. NATURAL DISASTERS 4 sh
Natural disasters, such as hurricanes, tsunami, earthquakes, volcanoes and floods can occur almost anywhere and reoccur in the same area, making it important to learn how to prepare for them. This course provides an introduction to the types of natural disasters people face. It explores the types, frequency, geographic distribution, physical processes that cause those hazards, their effects on human society and how humans evaluate and respond to minimize losses from natural disasters. Offered summer.

GEO 356. INTRODUCTION TO REMOTE SENSING 4 sh
Remote sensing is the science and art of collecting and interpreting information about the earth’s surface through non-contact methods. This course provides an introduction to the basic concepts and processes of remote sensing. It covers the principles of electromagnetic radiation and its interaction with the atmosphere and surface, interpretation of aerial photographs, basic photogrammetry, the principles of satellite data interpretation, the fundamentals of digital image processing, and the principles and applications of global positioning systems (GPS). Significant hands-on exercises are included.

GEO 360. GEOGRAPHY OF NORTH AMERICA 4 sh
This upper-level survey course examines the major physical, biological, cultural, political and economic patterns across Canada and the United States as a basis for exploring the interrelated connections between the natural world and its human inhabitants. Through readings, multi-media exercises, case studies and individual research, students will receive an overview of both physical and human geography as well as experience in geographic reasoning and map analysis. No prerequisite. Offered once per year.

GEO 460. ADVANCED GIS 4 sh
This advanced level course in geographic information systems (GIS) will build on the techniques learned in ENS/GEO 250 by exposing students to more advanced methods in developing and utilizing GIS data. It is designed primarily to provide students with an in-depth understanding of GIS applications, the theoretical/conceptual side of algorithms in GIS software and GIS research trends. Prerequisites: GEO 250 and 356, PUB 334 or permission of instructor.
**GEO 481. INTERNSHIP IN GEOGRAPHY 1-4 sh**
Internship is limited to four semester hours credit toward geography minor. Prerequisites: GEO 121, 131 and permission of instructor.

**GEO 491. INDEPENDENT STUDY 1-4 sh**

**GEO 499. INDEPENDENT RESEARCH 1-4 sh**
Students engage in independent research projects related to the field of geography in conjunction with a faculty mentor. Prerequisites: Junior or senior status and geography program approval.

### German Studies

**Coordinator: Associate Professor Windham**

The German Studies minor provides students with a strong interdisciplinary knowledge of German language and culture. It focuses on the study of Germany from a variety of perspectives: linguistic, literary, cultural, historical, artistic, philosophical and political. Study abroad in Germany is strongly encouraged.

**A minor in German Studies requires the following:**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GER 121</td>
<td>Introductory German I</td>
<td>4 sh*</td>
</tr>
<tr>
<td>GER 122</td>
<td>Introductory German II</td>
<td>4 sh</td>
</tr>
<tr>
<td>GER 221</td>
<td>Intermediate German I</td>
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<tr>
<td>GER 222</td>
<td>Intermediate German II</td>
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<tr>
<td>GST 218</td>
<td>Kafka and the Kafkaesque</td>
<td></td>
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<tr>
<td>GST 227</td>
<td>Holocaust Perpetrators</td>
<td></td>
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<tr>
<td>ENG 302</td>
<td>History of the English Language</td>
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<tr>
<td>HST 335</td>
<td>Growth of Modern Europe, 1789-1914</td>
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<td>HST 336</td>
<td>Europe, 1914-1945</td>
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<td>HST 337</td>
<td>Europe, 1945-Present</td>
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<tr>
<td>HST 338</td>
<td>Germany: War, Democracy and Hitler</td>
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<tr>
<td>HST 339</td>
<td>History of the Holocaust</td>
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<tr>
<td>PHL 338</td>
<td>Nietzsche and the Death of God</td>
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<td>PHL 339</td>
<td>Martin Buber and the Eclipse of God</td>
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<tr>
<td>PHL 433</td>
<td>Marx, Darwin and Freud</td>
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<tr>
<td>GER 300-IS</td>
<td>Selected courses from study abroad</td>
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<tr>
<td>GER 491</td>
<td>Independent Study</td>
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<tr>
<td>GST 499</td>
<td>Research</td>
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**TOTAL 20-24 sh**

Electives not listed above may be approved on a case-by-case basis after consultation with the program coordinator.

* If a student places into the 122 level or higher, the student must take 20 semester hours for the German studies minor, including at least eight semester hours of courses with the GER prefix. Up to 12 hours of study abroad courses that emphasize German studies’ subject matter may count for the minor, as approved by the program coordinator.
History

Chair, Department of History and Geography: Professor H. Frontani
Professors: Bissett, Crowe, Digre, Ellis, Festle, Midgette
Associate Professors: J. O. Brown, Carignan, Chang, Clare, Felten, Irons
Assistant Professors: A. Johnson, Matthews
Adjuncts: Beck, Cockrell, Cronenberg, Fletcher

The study of history centers around exploration of various economic, social, political, military and religious forces that have transformed the face of the world. It combines analytical thinking and writing with a detailed grasp of the many influences that have brought about historical change.

History is a discipline that explores the dynamics of change from humanistic and social scientific perspectives. Because of the breadth and depth of historical investigation, students who choose to major or minor in history at Elon find themselves well prepared for careers that require interaction with people and the ability to write and think analytically.

A major in History requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>HST 111</td>
<td>Europe and the Mediterranean World to 1500</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 112</td>
<td>Europe and the Mediterranean World since 1500</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 301</td>
<td>Research Methods</td>
<td>4 sh</td>
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Choose one course from the following: 4 sh

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>HST 121</td>
<td>United States History through 1865</td>
</tr>
<tr>
<td>HST 122</td>
<td>United States History since 1865</td>
</tr>
<tr>
<td>HST 123</td>
<td>The United States and North Carolina since 1865</td>
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</tbody>
</table>

Twenty-four hours of HST electives, 16 of which must be at the 300-400 level: 24 sh

U.S. and Europe, including ancient history (16 sh)
(at least 4 sh each from U.S. and Europe/ancient)

Africa, Asia, Latin America or the Middle East (4 sh)
Other electives (4 sh)

One HST seminar course including completion of a senior thesis 4 sh

TOTAL 44 sh

It is strongly recommended that history majors, in consultation with their advisor, select a topical or regional concentration of 12 semester hours at the 300 level and above. Concentration courses will be chosen from among the required 24 elective hours. With the approval of the department chair, four hours from outside the department may be applied toward the concentration and the elective history semester hour requirement. The department strongly recommends that history majors considering graduate school take a foreign language.

History majors receiving teacher licensure must complete the following courses:

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</thead>
<tbody>
<tr>
<td>HST 111</td>
<td>Europe and the Mediterranean World to 1500</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 112</td>
<td>Europe and the Mediterranean World since 1500</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 121</td>
<td>United States History through 1865</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 123</td>
<td>The United States and North Carolina since 1865</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST 301</td>
<td>Research Methods</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
One HST seminar course  

Choose one HST elective at the 300-400 level from each of the following areas: 

1) U.S. minority history (African-Americans, Native Americans and women) 
2) Europe 
3) Developing World (Africa, Latin America and Asia) 

GEO 131 The World’s Regions  
POL 111 American Government  
ECO 111 Principles of Economics  

Set of professional education courses  

TOTAL 83 sh

**A minor in History requires the following:**

Four semester hours selected from the following:  

HST 111 Europe and the Mediterranean World to 1500  
HST 112 Europe and the Mediterranean World since 1500  
HST 221 The World in the 20th Century  

Four semester hours selected from the following:  

HST 121 United States History through 1865  
HST 122 United States History since 1865  
HST 123 The United States and North Carolina since 1865  

Twelve semester hours of HST electives at the 300-400 level  

TOTAL 20 sh

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**HST 111. EUROPE AND THE MEDITERRANEAN WORLD TO 1500**  

This survey of major developments in the Mediterranean world begins with the ancient Mesopotamian and Egyptian civilizations, continues through Greece and Rome and concludes at the end of the Medieval Age. The course will cover the rise and decline of civilizations, the transitions of great empires, change versus continuity in economic, political, social and cultural institutions over time, and interactions and mutual influences among different people. Offered fall and spring.

**HST 112. EUROPE AND THE MEDITERRANEAN WORLD SINCE 1500**  

A survey of major developments in European history from 1500 to the present, this course covers the rise of the major European powers and their relations with one another and other world regions. Broad topics include transformations in cultural attitudes and practices, social relations and political organization; the devastating processes and effects of large-scale wars; and the emergence of modern economic processes and political institutions. Offered fall and spring.

**HST 121. UNITED STATES HISTORY THROUGH 1865**  

This survey of early U.S. history includes the major political, social, economic and intellectual developments in the U.S. from the first explorations of the continent through 1865, and considers the implications of these events and developments on the American experience after 1865. Offered fall and spring.

**HST 122. UNITED STATES HISTORY SINCE 1865**  

The study of U.S. history continues in this course with emphasis on the major political, social, economic and intellectual developments in the nation from the Civil War to the present. The course also examines how events and developments that occurred prior to
1865 influenced the nation’s evolution after the Civil War. No credit for students with prior credit for HST 123. Offered fall and spring.

**HST 123. THE UNITED STATES AND NORTH CAROLINA SINCE 1865**  

This survey of U.S. history since the Civil War places special emphasis on how major political, social, economic and intellectual developments in the nation have influenced North Carolina. The course also examines how events and developments that occurred prior to 1865 influenced the nation’s evolution after the Civil War. No credit for students with prior credit for HST 122. Offered fall and spring.

**HST 131-49. SPECIAL TOPICS**  

These courses are designed for entry-level students and address specific topics. Each topic is examined in broad historic context. These courses meet the General Studies requirement. Previous topics have included: the Civil Rights Movement, Anti-Communism in America, Jews and Gypsies in Western Civilization, and Being and Becoming Indian.

**HST 221. THE WORLD IN THE 20TH CENTURY**  

This survey of contemporary history examines critical events, ideologies and movements that have shaped our world. Students gain an understanding of the historical context of current global issues by examining developments in Africa, Asia, Europe, Latin America and the Middle East. Offered spring.

**HST 241. U.S. HISTORY STUDY TOUR**  

Through readings, discussions and visits to historic sites, students will learn about major turning points, issues and actors in U.S. history. Students will grapple with the contested nature of historical interpretation and identify some of the “driving forces” that have caused and influenced Americans’ experiences. Open to freshman Teaching Fellows only. Offered Winter Term.

**HST 251. HISTORY STUDIES ABROAD**  

This course offers a specialized study for those participating in abroad programs. Offered Winter Term.

**HST 301. RESEARCH METHODS**  

Students will focus on framing and answering historical questions using a variety of research techniques and both primary and secondary source materials. They will formulate and execute a research project that will result in both a written and oral presentation of their findings. Offered fall and spring.

**Africa and the Middle East**

**HST 252. GHANA: AN EXPLORATION OF WEST AFRICA’S HISTORY AND CULTURE**  

This course is designed for students to experience life in vibrant modern Ghana while they gain an appreciation for the country’s rich past. The class includes visits to historic sites, markets, palaces and museums; participation in cultural events; family visits in rural communities; treks through parks; and lectures by Ghanaian university faculty. Students learn about the powerful Asante state, the tragic trans-Atlantic slave trade, and Ghana’s important role in the struggle for African independence. The class offers rewarding service opportunities assisting Ghanaians with development projects. Offered winter term.

**HST 313. MODERN AFRICA**  

This survey course explores developments in Africa during the past century (especially regions south of the Sahara) and examines African responses to European imperialism, African independence and the problems faced by the new African states.

**HST 316. THE MODERN MIDDLE EAST**  

This course offers an historical perspective for better understanding critical issues in the modern Middle East. Students will survey the rise of Islam, the Ottoman Empire and Western Imperialism in the 19th century before focusing on events of the 20th century. Two world wars and their consequences; the rise of modern states, the development of
nationalism, pan-Arabism and Islamic revival, social tensions, regional conflicts and the
economics of oil; and contemporary revolutionary political events will be examined.
Students will learn about a topic of personal interest through individual research projects.
Offered fall of odd years.

**Russia**

**HST 318. RUSSIA, 1801 TO THE PRESENT**

This course will look at the major developments in Russian history from the time of the
reign of Alexander I until the present day. Readings are selected to give students a personal
view of each major period under discussion from the perspectives of those who lived then.
Major topics include the impact of politics, religion and war on each of the major periods
we study. Offered fall and spring.

**Asia**

**HST 320. CHINA, JAPAN & THE PACIFIC CENTURY: ERA OF WAR AND REVOLUTION**

Pearl Harbor and Hiroshima are infamous names in world history. In many ways they
represent the end result of a century of conflict and revolution in Asia that centered around
Western efforts to force themselves into the mainstream of Chinese and Japanese societies.
This course will explore these conflicts and their impact not only on these two important
Asian nations, but on all of the countries that ring the Pacific Rim such as Russia, the
United States, Canada and Australia.

**HST 321. CHINA: EMPIRE AND REVOLUTION, 1800-1948**

This course will look at the major developments in Chinese history from the beginning of
the 19th century until today. Its principal focus will be the impact of the major historical,
cultural, intellectual and philosophical traditions that have affected China over the past two
centuries. It will also highlight the major historical events in China during this period - the
opening of China during the Opium Wars, the major upheavals caused by China’s interac-
tions with the West in the 19th and early 20th centuries, the collapse of the imperial system
in 1911, the warlord era, the Nationalist period of domination between 1927 and 1949, and
the successes and failure of communist rule since 1949. Offered fall and spring.

**Europe**

**HST 323. THE MAKING OF THE ENGLISH NATION TO c. 1660**

A study of English customs, commerce, church, common law system, monarchy and
national identity. The course spans the development of the England’s peoples (Celts,
Romans, Anglo-Saxons, Vikings and Normans) from prehistoric times through the ancient
and medieval periods.

**HST 324. ENGLAND WITHIN THE BRITISH EMPIRE: 17TH CENTURY TO THE PRESENT**

This course surveys the dramatic transformations affecting the British peoples since the
Civil Wars. It examines shifts and ruptures in the national identities of the English, Welsh,
Scots and Irish peoples as they became “British” in this period. It also studies processes of
colonial and imperial expansion and devolution, and makes use of the lenses of class, gender
and race in discussing social and cultural transformations within the British Empire.

**HST 325. TOPICS IN MODERN BRITISH HISTORY**

This course is organized around a central topic or theme, the study of which provides
insight into important developments in modern British history. The course is offered only
in London and is limited to students enrolled in the Semester in London program.

**HST 326. ANCIENT GREECE**

This course studies the political, social and cultural characteristics of the ancient Greeks,
from the Bronze Age (featuring the Minoan and Mycenaean civilizations) to the Classical
period, and to Alexander the Great and the Hellenistic era. Myths, warfare, Athenian
democracy and imperialism, the Sophist Movement, gender roles, literature and arts will be
explored in historical context.
HST 327. ANCIENT ROME
This course explores the development of Rome from a small city state in the eighth century BCE, to a multi-ethnic empire that spanned Europe, Africa and Asia, and to the decline and eventual collapse of the Western Empire in the fifth century. Topics of focus include military and political institutions, personalities who took part in major events, interactions among different social classes (and between the Romans and foreigners), roles of men and women, daily life and religion.

HST 328. ANCIENT HEROES
This course examines the historical and social contexts surrounding ancient conceptions of heroes and heroism, through a study of historical figures in Greece and Rome: the 300 Spartans, Socrates, Alexander, Spartacus, Julius Caesar, Arminius and the gladiators. Focal themes include the societal values, longings and ideals which these characters embodied, and their representations in ancient sources and modern literature/popular culture.

HST 331. WORLD WAR I IN FILM AND LITERATURE
In this course, we will examine the poetry, novels, memoirs and films of the First World War to trace not only the history of the war and its impact on literature, but also how popular perception of the war has changed in the decades since it ended. Offered Winter Term.

HST 332. DAILY LIFE IN EARLY MODERN EUROPE, 1350-1750
This course examines how Europeans lived, day to day, from the time that the Black Death swept the continent to the Industrial Revolution. Topics include marriage, food, housing, witchcraft, clothing, court life, violence, sports, religion, childhood and death. Students examine life in the countryside and town, as well as the rich, the poor and everyone in between.

HST 333. GROWTH OF MODERN EUROPE, 1789-1914
This course explores the period between the French Revolution and World War I as modern Europe emerged from the old regime. It centers on the development of mass politics, the widespread impact of the Industrial Revolution, changes in women’s public and private roles, cultural developments from neoclassicism to modernism and the evolution of modern consciousness.

HST 336. EUROPE, 1914-1945
This course provides a study of European history focusing on the two World Wars, the search for stability in the interwar years and the rise of totalitarianism.

HST 337. EUROPE, 1945 TO THE PRESENT
Discussions in this course cover the Cold War, the end of colonial rule, the rise of the European Community, social and intellectual trends, the collapse of communism and the reawakening of nationalism in Eastern Europe.

HST 338. GERMANY: WAR, DEMOCRACY AND HITLER, 1914-1945
This course will explore the history of Germany from the outbreak of World War I through the end of World War II. It begins with an examination of the Second Reich (1871-1918) but concentrates on the two World Wars, Germany’s experiments with democracy during the Weimar Republic and dictatorship during the Nazi era.

HST 339. A HISTORY OF THE HOLOCAUST
This history of the Holocaust explores the roots of this event, beginning with historical anti-Semitism and the impact of this tradition on Adolf Hitler and the Nazis. Topics also include Hitler’s racial policies between 1933-1938, their spread throughout Nazi Europe between 1939-1941, the evolution of the Final Solution from 1941-1945 and post-World War II Holocaust developments and questions.

Latin America and Canada

HST 341. MODERN CENTRAL AMERICAN HISTORY
This course will introduce the dominant themes of Central American social and political history from independence in the early 19th century through the present day. We will
focus on the process of independence, liberalism and the coffee boom, dictatorships and revolutions, counter-revolutions, civil war and United States intervention in the region. We will examine the reasons why the region has been plagued by dictatorships and rebellions throughout the modern era, and why Costa Rica has, in general, been an exception to this trend. The course will additionally address the ways in which ethnicity, class and gender figured into the social movements of resistance and rebellion in modern Central America. The course will emphasize the critical evaluation of primary and secondary source materials reflecting different perspectives on these issues in the region’s history. The goal of the course is to enable students to gain an understanding of problems confronting present day Central America by placing them in a historical perspective. Offered spring.

HST 350. HISTORY OF BRAZIL
2 sh
This course is intended to be an introduction to the history and culture of Brazil, examining the changes and continuities in Brazilian history from the colonial period through the 20th century. The course explores the influence of colonial and 19th century heritages and of 20th century national and international relations on the formation of modern Brazilian politics, economics and society. A major focus of the course is the interrelationship of the cultures that comprise Brazil — indigenous, Portuguese and African — and how these relationships have changed over time, as well as the significant role played by race, class, gender and ethnicity in the shaping of modern Brazilian culture and society. Offered spring.

HST 351. HISTORY OF MEXICO
2 sh
An introduction to the history of Mexico and to its contemporary cultural and political life. The role of native peoples is emphasized in the early colonial period and in recent developments. The course also explores Mexico’s relationship with the U.S.

HST 352. CANADA/U.S. RELATIONS SINCE 1865
4 sh
This class is a comparison of some of the major events in both Canadian and U.S. history since 1865. Students will learn about the different approaches to nation building in both countries, policies toward First Nation/Native Americans, war, women’s rights, politics, foreign policy, immigration and other issues. The class will spend about half of the semester examining Canada and its history. The other half of class will be used to look at Canadian/U.S. relations in several variances. Here lies the crux of the relationship — two countries with similar backgrounds and cultures yet possessing dissimilar cultural and social traits. Offered fall and spring.

HST 353. COLONIAL LATIN AMERICA
4 sh
This course will survey the history of Latin America from pre-Colombian times through the wars for independence at the beginning of the 19th century. The course seeks to explain the development of a multicultural, multiethnic and multilingual society in Latin America by studying the cultures of pre-Columbian and Iberian societies, the complexities of the interaction between these different cultures as they “met in the Americas” and the historical processes through which new cultures evolved. Some of the major topics that will be discussed include Amerindian culture, the encounter between Europeans and Amerindians (otherwise known as the Conquest), the rise and fall of colonial empires and colonial society, and the civil wars of independence. Offered fall.

HST 354. MODERN LATIN AMERICA
4 sh
This course will survey the history of Latin America from the early 19th century to the present. The goal of the course is to enable students to gain an understanding of issues in contemporary Latin America by placing them in a historical perspective. The course is structured thematically focusing on subjects including the social implications of various models of economic development, the opportunities and problems which result from economic ties to wealthy countries, changing ethnic, gender and class relations in Latin America and the diverse efforts of Latin American people to construct stable and equitable political, economic and social systems. In examining these topics, examples will be drawn from the histories of various Latin American countries. Offered fall.
The United States

**HST 355. ORAL HISTORY: NORTH CAROLINA WOMEN** 4 sh

This course focuses on what it was like to be a North Carolina woman in the 20th century, focusing on the factors that influenced their lives, especially gender and region. The course also focuses on oral history as a method of doing historical research. Students will prove their competencies in oral history by doing a major project.

**HST 356. EARLY NATIONAL PERIOD, 1787-1840: FORCES THAT SHAPED THE NATION** 4 sh

A study of the thought that produced the American Constitution and the implementation of that national government during the administration of its first seven presidents. Topics examine political, social and economic forces that affected national decisions and development.

**HST 357. AMERICA’S CIVIL WAR** 4 sh

Beginning with the era of Andrew Jackson, this course focuses on the geographic, economic, social and political dynamics that tore the nation apart. Students analyze the causes of the Civil War and examine its military, social and political facets. A concluding study of the Reconstruction of the nation explores the resolution (or not) of the issues that generated the conflict.

**HST 358. THE U.S., 1877-1940: THE CONSEQUENCES OF MODERNIZATION** 4 sh

Focusing on the transformation to industrial capitalism, this course explores the major developments in American history from the end of Reconstruction to the beginning of World War II. Students examine the Gilded Age, progressivism, World War I, prosperity and nativism in the 1920s, the Great Depression and the New Deal, and the coming of war in Europe and Asia.

**HST 359. THE UNITED STATES SINCE 1940: RECENT AMERICAN HISTORY** 4 sh

This study of recent American history is organized around four major themes: America in World War II, America’s obsession with stopping the spread of Communism, the tumultuous social movements of the 1960s and the disillusionment caused by Vietnam and Watergate. Class discussions center around how these events continue to affect American institutions.

**HST 360. MODERN AMERICAN HISTORY IN FILM** 4 sh

Students will, through group activities, class discussions and independent work, learn how 20th century United States history has influenced the growth of the American cinema, while concurrently discerning the impact of film on the evolution of modern American culture. Offered Winter Term.

**HST 361. NORTH CAROLINA IN THE NATION** 4 sh

This course traces N.C. history from the first European contact to the present in the wider context of U.S. history. Topics include N.C. as a microcosm of the region and nation; Reconstruction and the New Deal; and N.C. political, economic, social and geographical features as related to national trends. Discussion also covers how family and community history are preserved and how the study of local history can enhance public understanding of national events.

**HST 362. THE SOUTH IN AMERICAN HISTORY** 4 sh

This course examines the South (especially post-Civil War) as a distinctive region of the U.S., including reasons for such distinctiveness and its impact on the nation’s history.

**HST 363. AFRICAN-AMERICAN HISTORY, 1850-PRESENT** 4 sh

Beginning with the slave system in the mid-19th century, this course examines recurring issues and problems in African-American history through the post-Civil Rights era. Study focuses on three themes: the similarity and differences of African-American experiences; the extent to which they were oppressed yet also had choices; and their strategies to cope with their social and political situations.
HST 364.  HISTORY OF WOMEN IN THE U.S.  4 sh
This course surveys the experiences of women in the U.S., emphasizing their changing political and economic status and gender role expectations. Topics focus on the historical factors — politics, war, social movements, technology and ideology — that caused such changes, strategies women utilized to change or cope with their situations, and differences among women.

HST 365.  SOCIAL MOVEMENTS IN POST-CIVIL WAR AMERICA  4 sh
This course covers organized efforts to change American society since Reconstruction, including social movements from Populism in the late 1800s to the Civil Rights Movement in the 1960s and the responses to these movements.

HST 366.  U.S. FOREIGN POLICY SINCE 1865  4 sh
This class is designed to cover American foreign policy since the end of the Civil War to the present. Another way to conceptualize the class is to note that it is comprised mainly as diplomatic history. However, it is not traditional in that we will focus on not only the major diplomatic events and the players who brought them about but also the interconnection of diplomacy among various groups in American society. Offered fall and spring.

HST 367.  AMERICAN MILITARY HISTORY THROUGH 1865  2 sh
Focus is on the impact of the American Revolution on the evolution of the Army and Navy, the relationship between military power and a growing sense of nationhood and the American Civil War. Students will explore causes of military conflicts, the strategy and tactics of campaigns and the impact of the resolution of these conflicts.

HST 368.  AMERICAN MILITARY HISTORY SINCE 1865  2 sh
This course analyzes military power as a component of foreign policy. Students concentrate on America's shift from an isolationist nation to a major world power by examining the Spanish-American War, World War I, World War II, the Korean Conflict, Vietnam and recent engagements.

HST 369.  TOPICS IN AMERICAN INDIAN HISTORY  4 sh
Stressing the active role that Indian people have taken in the creation of their own history, this course focuses on complicated cultural and historic realities. Topics include pre-Columbian Indian societies, cultural adaptation, removal, the Reservation Age, resistance movements, the Indian New Deal, postwar activism and cultural revitalization.

HST 391.  AMERICAN INDIANS IN THE 20th CENTURY  4 sh
During the 20th century American Indians faced consistent pressure to give up their traditional cultures and assimilate into the mainstream. Many communities willingly accommodated themselves to new practices and beliefs, but this did not mean that in doing so they abandoned traditional values. Instead, in case after case native people ensured the survival of important rituals, beliefs and institutions by carefully and deliberately combining their old ways with new ones. This course examines these adaptive strategies from a number of perspectives including politics, religion, economics and ceremonial life. Offered Winter Term.

HST 392.  SLAVERY IN BRITISH NORTH AMERICA  4 sh
This course examines the forced servitude of men and women of African descent in North America, particularly that portion which ultimately became the United States. While it considers other variations of unfree labor, especially indentured servitude and the enslavement of Amerindian peoples, the emphasis is on the men and women caught up in the Atlantic trade from Africa and their descendents. We will stress the dynamic nature of slavery, how the experience of both slave owners and slaves varied according to time and to place. A significant amount of attention will also go to the process of emancipation and enfranchisement—to the battles that freed people and their allies fought for inclusion as full citizens in the United States. Offered fall and spring.
**HST 460-69. SEMINAR: SPECIAL TOPICS** 4 sh
A capstone experience for majors, this course offers students practical experience in researching, writing and presenting a senior thesis. Past topics have included the Holocaust, American Indian Religion, Nazi Germany, Human Rights in Latin America, Gender and Sexuality in American History and 20th Century Europe. Prerequisite: HST 301 or permission of the instructor. Offered fall and spring.

**HST 481. INTERNSHIP IN HISTORY** 2-4 sh
Designed to provide students with practical experience in history-related professions, activities included in the internship enable students to explore careers in archives, record management, historic sites, museum administration, etc. Prerequisite: 18 semester hours of history.

**HST 491. INDEPENDENT STUDY** 2-4 sh
Open to junior/senior majors/minors or others with permission of instructor.

**HST 499. RESEARCH IN HISTORY** 1-4 sh
Open to junior/senior majors/minors or others with permission. In conjunction with a faculty mentor, the student will formulate and execute an original research project that will culminate in a formal presentation. A research proposal form completed by the student and faculty mentor is required for registration.

**Honors Fellows Program**

**Director:** Professor Vandermaas-Peeler  
**Associate Director:** Associate Professor Carignan

The Honors Fellows Program is a four-year developmental experience designed to help a cohort of talented students grow intellectually and demonstrate exceptional academic achievement. Chosen because they demonstrate great academic potential and motivation, Honors Fellows may concentrate their studies in any major. Program requirements include completing a structured curriculum with a foundation in the liberal arts, maintaining high academic standards, producing an Honors thesis, learning outside the classroom and being an exemplary academic citizen of the Elon community.

The curricular structure is summarized in the following:

**First Year**
- Fall – The Global Experience – Honors section (GST 110)  
- Spring – Discipline-based Honors seminar (HNR 130-60)

**Second Year**
- Fall – Team-taught interdisciplinary seminar I (HNR 230-60)  
- Spring – Team-taught interdisciplinary seminar II (HNR 230-60)

**Third Year**
- Fall or spring – Thesis proposal due; thesis research (HNR 498)

**Fourth Year**
- Fall – Thesis research (HNR 498)  
- Spring – Thesis research (HNR 498) and thesis defense
Optional Honors sections of math and college writing may also be offered.

The following courses are required of and restricted to students admitted to the Honors Fellows Program.

**HNR 130-60. DISCIPLINE-BASED SEMINARS FOR FIRST-YEAR HONORS FELLOWS**  
4 sh  
Topics will vary, but the first-year seminar emphasizes intensive study of a disciplinary topic in the arts and sciences and is taught by a specialist in the field. Students will study theoretical perspectives appropriate to the field and develop their critical thinking, research, project and communication skills.

**HNR 230-60. TEAM-TAUGHT INTERDISCIPLINARY SEMINARS FOR SECOND-YEAR HONORS FELLOWS**  
4 sh  
Topics will vary, but all team-taught seminars will focus on a cross- or multi-disciplinary topic taught by specialists in complementary fields with at least one faculty member representing an area in the arts and sciences. Students will continue to develop the writing, research, project and critical thinking skills practiced in first-year courses by examining problems with methods from multiple disciplines.

**HNR 498. HONORS THESIS**  
1-4 sh  
This course is for advanced Honors Fellows who are preparing their Honors thesis. Students work independently with the guidance of a faculty mentor on projects approved by the Honors Program. Students registered for HNR 498 and their mentors must attend Honors thesis workshops. Students may take no more than four hours credit in one semester and eight hours credit total. Fulfills the Experiential Learning Requirement.

**Human Service Studies**

**Chair:** Associate Professor B. Warner  
**Professors:** Fair, Kiser  
**Associate Professors:** Esposito, D. Warner  
**Assistant Professor:** Sullivan  
**Lecturers:** Miller, Reid

The Human Service Studies major prepares students to work as practitioners in a variety of professional service settings such as social services, mental health, family services, corrections, gerontology, youth programs, group homes and many others. The Human Service Studies curriculum guides the student through gaining the knowledge, skills and experience necessary to work effectively with a variety of populations.

Students engage in extensive fieldwork in human services agencies as part of their studies. Through the classroom and field components of the major, students examine critically a range of human and societal problems and the programs and services designed to address them, acquiring an understanding of the societal, cultural and personal variables which contribute to the development of human problems and to their solution.

The Human Service Studies major draws upon knowledge in the social sciences and emphasizes the application of this knowledge to the improvement of human life and society. In order to apply this knowledge effectively, students develop a variety of skills including those involved in oral and written communication, problem solving, developing professional helping relationships, organization and administration.

**A major in Human Service Studies requires the following courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSS 111</td>
<td>The Art and Science of Human Services/ELR</td>
<td>4 sh</td>
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<td></td>
<td><em>(counts toward Society)</em></td>
<td></td>
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<tr>
<td>HSS 212</td>
<td>Counseling Individuals and Families</td>
<td>4 sh</td>
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</tbody>
</table>
Prior to taking HSS 381, students must be approved by the Human Service Studies department. A minimum cumulative grade point average of 2.1 is required to be eligible for practicum.

Most of the other major requirements must be completed prior to taking HSS 481. Students who enroll in HSS 481 may not take any courses other than the prescribed block courses. A minimum cumulative grade point average of 2.2 is required to be eligible for internship. Applications for both practicum and internship must be completed by in the spring semester prior to registration in order to enroll in these courses the following year. Applications are available online through a link on the Human Service Studies website.

A minor in Human Service Studies requires the following courses:

- HSS 111 The Art and Science of Human Services/ELR 4 sh
- HSS 212 Counseling Individuals and Families 4 sh
- HSS 213 Working with Groups and Communities 4 sh
- HSS 381 Practicum: Theory and Practice of Human Services 4 sh

Four-semester hours HSS course 4 sh

TOTAL 20 sh

HSS 111. THE ART AND SCIENCE OF HUMAN SERVICES/ELR 4 sh

This course explores the history, values and ethics of the human services profession. Students are introduced to the theoretical approaches to human services work, issues of social justice, and the evidence used to guide interventions and policy designed to address human problems. A minimum of 40 hours of field work in an approved human services setting is required. Offered fall and spring.

HSS 212. COUNSELING INDIVIDUALS AND FAMILIES 4 sh

This course examines various theories and methods used in helping families and individuals resolve problems. Students gain skills in applying these theories and methods through use of case studies, role playing, simulations and other experiential methods. Prerequisite: HSS 111 or PSY 111. Offered fall and spring.

HSS 213. WORKING WITH GROUPS AND COMMUNITIES 4 sh

This course examines the interaction of group dynamics and community empowerment to resolve individual and social problems. Topics addressed in the course include group development and dynamics, power and decision making, communication, and using groups to develop community capacity through coalitions and activism. Students will gain awareness
of the power of groups in influencing both positive and negative change within individuals and communities. Prerequisite: HSS 111 or SOC 111. Offered fall and spring.

**HSS 285. RESEARCH METHODS IN HUMAN SERVICE STUDIES** 4 sh

This course examines the methods used to conduct basic social science research. Emphasis is placed on the use of research in practice-related settings. The course acquaints students with a basic theoretical understanding of research, practical aspects of research and ethical and diversity considerations inherent in the proper implementation of research. Prerequisite: HSS 111. Offered fall and spring.

**HSS 311. SOCIAL POLICY AND INEQUALITY** 4 sh

Social policies affect both the quality of life of the people who make up our society and the guidelines that determine how human services professionals are able to help them. Students in this course will study the history of inequality and social welfare in the United States, contemporary social policies, and the political, economic and social structures that influence how resources are distributed in U.S. society. Topics may include policies affecting individuals, families and children, such as health care, education, housing and employment. Prerequisite: HSS 111. Offered fall and spring.

**HSS 320. GROUP DYNAMICS AND LEADERSHIP** 4 sh

This course will focus on leadership in the context of citizenship and the public good. Students will learn theories and concepts related to leadership and group dynamics and will develop the ability to apply this knowledge in working with others to achieve group goals. Through participation in civic engagement opportunities, reading, research, class exercises and self-assessments, students will develop an understanding of themselves as leaders and as group participants, increasing their ability to participate in and/or lead groups effectively. Offered spring.

**HSS 324. PERSPECTIVES AND ISSUES IN AGING** 4 sh

This introduction to gerontology explores the biological, sociological and psychological aspects of aging and presents cultural, economic and political issues related to aging such as ageism, retirement, living environments, the social security and healthcare issues.

**HSS 326. SPECIAL POPULATIONS IN HUMAN SERVICES** 4 sh

This course explores specific populations of human services clients such as persons with disabilities, children at risk, persons with HIV/AIDS, persons with terminal illnesses, etc. Needs of the particular populations under study are explored as well as programs, services and innovations in service provision. Specific populations studied vary based on current trends and issues in the field.

**HSS 349. VIOLENCE IN FAMILIES** 4 sh

This course explores various forms of violence in families including violence between spouses/partners, violence directed toward the elderly, violence between siblings and violence of parents toward children. Factors contributing to violence in families are discussed as well as methods of preventing and/or ameliorating patterns of violence within families. Students in this course develop an understanding of the reciprocal relationship between families and society by exploring how violence in families contributes toward societal violence as well as how family patterns are influenced by the values and attitudes of the larger society.

**HSS 350. INTERNATIONAL HUMAN SERVICES** 4 sh

This course examines roles and strategies adopted by human service professionals to address issues affecting the well-being of people throughout the world. Particular attention will be paid to working with immigrants and refugees, global violence against women and HIV/AIDS. Students will gain familiarity with the multi-level determinants underlying these issues, program models utilized to address these problems, as well as the international organizations involved in these fields.
HSS 351. GLOBAL VIOLENCE AGAINST WOMEN 4 sh
This course will explore violence against women in a global perspective. Students will gain an understanding of the prevalence and forms of violence against women worldwide, theoretical and cultural perspectives, consequences of violence, promising interventions and future directions in the fight to end violence against women. Specific topics include intimate partner violence, female genital mutilation, sex trafficking and women and conflict situations.

HSS 359. CRIMINAL JUSTICE 4 sh
The field of criminal justice is examined in terms of three interdependent subsystems: law enforcement, corrections and the courts. Both theoretical models and practical applications will be used to encourage a broad understanding of the criminal justice system as a whole.

HSS 361. SUBSTANCE ABUSE: ISSUES IN TREATMENT 4 sh
Students become familiar with the contemporary theories and knowledge base concerning substance abuse. The course examines therapeutic issues involved in the treatment of substance-abusing persons and their families and reviews various types of treatment interventions. The course addresses innovative treatment modalities as well as the lack of sufficient and appropriate rehabilitative services to meet the needs of various special populations.

HSS 367. PLAY THERAPY: THE POWER OF PLAY WITH CHILDREN AND FAMILIES 4 sh
This course is an introduction to the use of play as a therapeutic tool for change. Students will learn many of the techniques and skills employed by play therapists in assessing and helping children and families. Primary goals of the course will be (1) to develop basic play therapy skills; (2) to acquaint students with a basic understanding of the relevant theories; and (3) to increase student understanding of the importance of playing, dominant themes and language of play.

HSS 368. CHILDHOOD AND HUMAN SERVICES 4 sh
This course is about children, their needs, strengths, problems, developmental tasks and successes. Childhood both in a broad historical context, and in a specific, local community context is examined. Special emphasis is on the process of helping children, different methods and approaches for helping children, and a close analysis of some specific problems and issues that affect children today. A major goal of this course is for students to work with an existing community partner to provide sustainable services to children designed to address a previously unidentified need in children.

HSS 369. JUVENILE JUSTICE 4 sh
This course examines the juvenile justice system, including a number of agencies which have jurisdiction over a juvenile from birth to the age of majority. System components included in this course are the social services, law enforcement, juvenile court and corrections. Ancillary and supportive services such as mental health, school systems, child advocacy groups and guardian ad litem programs are also explored.

HSS 371-73. TOPICS IN HUMAN SERVICE STUDIES 4 sh
Students examine special topics in human service studies, such as developmental disabilities, mental health issues and services, family violence, etc.

HSS 381. PRACTICUM: THEORY AND PRACTICE OF HUMAN SERVICES 4 sh
Three weeks of direct practice and observation in a human services organization provide the opportunity for students to apply and conceptualize various aspects of human service delivery using this approach. Student learning will be guided and enhanced through weekly seminars, written assignments and faculty site visits. Prerequisites: HSS 111, 2.1 cumulative GPA, status as a declared Human Service Studies major or minor, and approval of application for practicum. Offered winter and summer.

HSS 382. PRACTICUM: THEORY AND PRACTICE OF HUMAN SERVICES IN LONDON 4 sh
This course introduces students to the biopsychosocial model of understanding human systems in a cross-cultural environment. Three weeks of direct practice and observation in a human services organization in London allows students to apply and conceptualize
various aspects of human service delivery, particularly cross-cultural practice, using this approach. Student learning will be guided and enhanced through course readings, weekly seminars, written assignments and faculty site visits. Students will also explore the development of the social service system in England and current social problems in London through guest lectures and class field trips. As a result of this course, students will be more effective cross cultural helpers. Prerequisites: HSS 111, 2.1 cumulative GPA, status as a declared Human Service Studies major or minor, and approval of application for practicum. Offered Winter Term.

**HSS 411. DESIGNING AND ASSESSING HUMAN SERVICES PROGRAMS**

This course helps students understand the special nature and responsibilities of a human services organization. Students will learn how to design programs to address social problems by conducting a programmatic needs assessment, planning and designing interventions, developing necessary resources, and assessing programs for their effectiveness. Students will gain greater knowledge of how to work with the wide variety of constituencies involved with a human services organization – employees, volunteers, boards, community networks and clients. Senior block course. Prerequisites: HSS 111, 285 and 381. Offered fall and spring.

**HSS 412. ADVANCED THEORY AND INTERVENTIONS**

This course examines the complex issues involving cross-cultural service delivery and case management. Emphasis is placed on further development of skills essential to the human service professional including intentional interviewing, assessment, case documentation and the application of cultural humility. Senior block course. Prerequisites: HSS 111 and 381. Offered fall and spring.

**HSS 461. SENIOR SEMINAR**

In this capstone course, students analyze their personal and professional development during their university experience and are required to research, write and present a scholarly paper. Prerequisites: Senior majors, HSS 285. Offered fall and spring.

**HSS 481. INTERNSHIP IN HUMAN SERVICES**

The internship in human services provides an opportunity for students to practice the roles, tasks and skills of human service professionals. Students work full time in an approved placement in a human services agency that offers experiences consistent with the goals of the human service studies major. Periodic conferences with the teaching faculty member and the agency field supervisor provide students with feedback and mentoring as they gradually assume the responsibilities of professional level work in the field. Offered fall and spring. Taken concurrently with HSS 482.

**HSS 482. CAPSTONE ACADEMIC FIELD SEMINAR**

While enrolled in HSS 481, students participate in a weekly seminar and complete assignments designed to integrate their knowledge and skills with their experience in the field. Through completion of weekly assignments, students demonstrate their ability to use the knowledge and skills they have acquired in the human services studies major to inform and guide their work in the field. Offered fall and spring. Taken concurrently with HSS 481.

**HSS 499. INDEPENDENT RESEARCH IN HUMAN SERVICE STUDIES**

Students engage in independent research projects related to the field of human service studies. Research is conducted under the supervision of human service studies faculty. Prerequisite: departmental approval.

**Independent Major**

**Coordinator:** Associate Professor Coker, Director of General Studies

Students with intellectual and professional interests which cannot be met by other major and minor programs may create an independent major. Independent majors are interdisciplinary in nature and are suitable for highly motivated students willing to assume excep-
tional responsibility for their own education. Students must have a GPA of at least 3.0 and no more than 66 completed semester hours when applying. Advice from the director of General Studies may be helpful in designing an independent major. Details concerning final approval for an independent major may be obtained in the office of the director of General Studies.

**An Independent Major requires the following:**

1. Application for Independent Major, available from the director of General Studies, must be completed before the student has earned 66 semester hours. This application also outlines the procedure to be followed for designing and declaring the independent major.

2. An interdisciplinary committee of three professors, including one designated as the principal advisor, must be assembled.

3. A curriculum must be designed with help from the committee. That curriculum must include the completion of the General Studies requirements.

**An Independent major includes**

- a minimum of 48 semester hours
- a minimum of 28 semester hours at the 300-400 level
- a capstone seminar
- a capstone interdisciplinary project
- a plan for assessing the completed major.

The independent major courses must come from at least three departments and no more than half may be from any one department. Upper-level courses taken to satisfy the requirements of an independent major will also satisfy the eight-hour Advanced Studies requirement when the independent major includes at least 12 hours of upper-level courses in three departments and at least two of the four areas listed under Studies in Arts and Sciences. Students completing an independent major which designates an advanced GST seminar as the capstone seminar must take another GST seminar to fulfill the General Studies requirements.

No more than four semester hours of independent study may be included. This will usually be used for completion of the capstone interdisciplinary project.

**International Studies**

Coordinator: Professor Digre
Program Faculty
Professors: Basirico, DeLoach, Roselle
Associate Professors: Layne, Van Bodegraven, Windham
Assistant Professors: Giovanello, Matthews, Pelton, Winfield

The International Studies major provides students with an interdisciplinary program through which they can gain a broad knowledge of international affairs as well as expertise on one of the world’s regions. Study abroad experiences and foreign language study form integral parts of the program. Students, with the support of their advisors, have considerable freedom in designing their own program of study.

The major may form an attractive double major for students from a variety of disciplines, such as political science, history and foreign languages. It also might be profitably combined with a business minor. It should provide an educational background for those seeking international affairs careers in government, nongovernmental organizations (development/humanitarian), travel and business.
International studies majors are required to study abroad for a semester. This requirement is designed to provide students with an in-depth, cross-cultural experience while encouraging them to strengthen their foreign language abilities. Students should choose an area relevant to their regional concentrations (see below). Winter Term study abroad programs offer valuable international experiences and the courses can be counted within the major, but they will not satisfy the semester requirement. With the approval of the program coordinator, an extended summer study abroad program may satisfy the requirement. International (foreign) students satisfy the requirement through their studies at Elon. Under specific provisions of the major and with the program coordinator’s approval, up to 20 semester hours of study abroad coursework can be counted toward the major.

* Students can apply for merit and need-based scholarships for studying abroad through the Isabella Cannon International Centre.

A major in International Studies requires the following courses:

**Foundation courses**

8 sh

POL/INT 141  International Relations
HST/INT 221  The World in the 20th Century

**Foreign language study**

8 sh

All international studies majors must take at least eight semester hours of study in one modern foreign language. Students must also demonstrate foreign language proficiency by successful completion of a foreign language course at the 222 level (or its equivalent). Students should choose a language relevant to their regional concentrations.

**Global studies**

12 sh

Students must take courses from at least two of the following five areas. Appropriate special topics courses, as approved by the program coordinator, may be included in the global studies category.

**Politics and economics**

MKT 416  Global Marketing
MGT 424  International Business Management
ECO 111  Principles of Economics
(This course is recommended for students interested in pursuing an M.A. in international studies. Economics is often an admission requirement.)
ECO 314  International Trade and Finance
POL 114  Model United Nations
POL 161  Comparative Politics
POL 342  U.S. Foreign Policy
POL 341  International Organizations
POL 343  International Law
POL 344  International Environmental Policy
POL 345  International Terrorism
POL 346  International Security
POL 348  International Human Rights
POL 358  Media and War
POL 359  Political Communication

**History and geography**

GEO 131  The World’s Regions
GEO 310  Development and the Environment in Latin America, Africa and Asia  
GEO 345  Global Environmental Change  
HST 112  Europe and the Mediterranean World Since 1500  

**Literature and foreign language**  
ENG 231  Introduction to World Literature  
ENG 331  Advanced World Literature  
Foreign languages 222 relevant to student’s regional concentration  

**Society and culture**  
ANT 112  Introduction to Cultural Anthropology  
ANT 121  Cross Cultural Encounters  
ARH 212  Art History III: Revolt, Reform, Critique  
COM 330  International Communications  
PSY 366  Psychology in Cultural Context  
REL 110  Religion in a Global Context  
REL 361  Women, Religion and Ethnography  

**Study abroad**  
Students who have study abroad course credit that cannot be counted under foreign language study or regional concentration may count four semester hours under this category.  

**Regional concentration**  

At least three courses taken on one geographic region. Courses should be chosen from at least two disciplines. Study abroad and special topics courses, as approved by the program coordinator, may be included under the regional concentration.  

Approved courses for regional concentrations in Africa, Asia, Europe, Latin America and the Middle East are listed below. In addition, special area concentrations designed by student and advisor may be approved by the program coordinator.  

**Africa**  
ARH 341  African Art  
ENG 338  The African Experience in Literature  
FRE 363  The Francophone outside the Hexagon  
GEO 320  Africa’s People and Environments  
HST 252  Ghana: An Exploration of West Africa’s History and Culture  
HST 313  Modern Africa  
POL 367  Politics of Africa  

**Asia**  
ENG 337  Asian Literature of Social Change  
ENS 310  Environmental Issues of Southeast Asia  
HST 321  China: Empire and Revolution, 1800–1948  
PHL 352  Eastern Philosophy  
POL 362  India and Pakistan  
POL 363  Politics of Asia
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>REL 201</td>
<td>Buddhist Traditions</td>
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<tr>
<td>REL 202</td>
<td>Hindu Traditions</td>
</tr>
<tr>
<td>REL 356</td>
<td>Chinese “Religions” from Confucius to Mao</td>
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<tr>
<td>REL 357</td>
<td>Sages and Samurai: Religion in the Japanese Experience</td>
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<td>REL 358</td>
<td>Sites and Rites: Sacred Space and Ritual in World Religions</td>
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<td>REL 360</td>
<td>Hindu Goddesses: From Myths to Movies</td>
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<td>REL 362</td>
<td>Hindu Textual Traditions: Sacrifice, Duty and Devotion</td>
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<tr>
<td>REL 363</td>
<td>Women in Islam: Veneration, Veils and Voices</td>
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<tr>
<td>ENG 222</td>
<td>British Literature II</td>
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<td>ENG 325</td>
<td>Romanticism</td>
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<td>ENG 326</td>
<td>Realism and the Later 19th Century</td>
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<td>ENG 356</td>
<td>The Novel: British Women Writers</td>
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<td>FRE 352</td>
<td>Perspectives on Modern France</td>
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<tr>
<td>FRE 361</td>
<td>Defining Moments in French Civilization</td>
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<td>FRE 363</td>
<td>The French Cinema</td>
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<tr>
<td>HST 318</td>
<td>Russia, 1801 to the Present</td>
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<tr>
<td>HST 324</td>
<td>England within the British Empire</td>
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<td>HST 335</td>
<td>Growth of Modern Europe, 1350–1750</td>
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<td>HST 336</td>
<td>Europe, 1914–1945</td>
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<td>HST 337</td>
<td>Europe, 1945 to the Present</td>
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<td>HST 338</td>
<td>Germany: War, Democracy and Hitler, 1914–1945</td>
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<td>HST 339</td>
<td>A History of the Holocaust</td>
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<td>PHL 433</td>
<td>Marx, Darwin and Freud</td>
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<tr>
<td>POL 332</td>
<td>Comparative Public Policy</td>
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<tr>
<td>POL 364</td>
<td>Politics of Europe</td>
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<tr>
<td>SPN 333</td>
<td>Spanish Civilization</td>
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<tr>
<td>ANT 364</td>
<td>Inequality and Development in Latin America</td>
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<td>ENG 335</td>
<td>Latin American Literature and Culture</td>
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<td>GEO 342</td>
<td>Gender and Environment in South America</td>
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<td>HST 341</td>
<td>Modern Central American History</td>
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<tr>
<td>HST 350</td>
<td>History of Brazil</td>
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<td>HST 351</td>
<td>History of Mexico</td>
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<td>HST 353</td>
<td>Colonial Latin America</td>
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<td>HST 354</td>
<td>Modern Latin America</td>
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<td>POL 368</td>
<td>Latin American Politics</td>
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<td>POL 369</td>
<td>US–Latin American Relations</td>
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<tr>
<td>SPN 334</td>
<td>Latin American Civilization</td>
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<tr>
<td>ARH 342</td>
<td>Islamic Art: Ornament and Idolatry</td>
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<tr>
<td>ENG 385</td>
<td>Middle Eastern Literature</td>
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</tbody>
</table>
A minor in International Studies requires the following:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL/INT 141</td>
<td>International Relations</td>
<td>4 sh</td>
</tr>
<tr>
<td>HST/INT 221</td>
<td>The World in the 20th Century</td>
<td>4 sh</td>
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</tbody>
</table>

Twelve semester hours based on the program of study for the international studies major: 12 sh

Choose one of the following options:

a. A regional concentration
b. The global studies field
c. Foreign language study

TOTAL: 20 sh

Students are strongly encouraged to include a relevant study abroad experience. With the approval of the program coordinator, a maximum of 12 semester hours of study abroad credits can be counted toward the minor.

**INT 141. INTERNATIONAL RELATIONS**
4 sh
Cross-listed with POL 141. See POL 141 for description.

**INT 221. THE WORLD IN THE 20th CENTURY**
4 sh
Cross-listed with HST 221. See HST 221 for description.

**INT 370-379. TOPICS IN INTERNATIONAL STUDIES**
Courses with interdisciplinary approaches to new topics in international studies or on one of the world’s regions.

**INT 461. SENIOR SEMINAR**
4 sh
The senior seminar is a capstone experience designed for majors. This course offers practical experience in researching, writing and presenting a senior thesis which builds on previous work in global studies and the regional concentration.
INT 481.  INTERNSHIP IN INTERNATIONAL STUDIES  2-4 sh
Designed to provide students with opportunities to work in professional positions related to international affairs. Internships are intended to provide practical experience for future careers in government, nongovernmental organizations (development/humanitarian) and business. They may be arranged both in the United States and overseas. Prerequisite: Permission of program coordinator.

INT 491.  INDEPENDENT STUDY  2-4 sh
Open to junior or senior majors with permission of instructor.

INT 499.  RESEARCH  1-4 sh
Designed to allow students the opportunity to engage in an empirical or theoretical study in collaboration with a faculty member. Research projects may include reviewing relevant literature, developing a research design, data collection, analysis and presentation of findings. This may also include a presentation to the International Studies faculty and/or a Spring Undergraduate Research Forum presentation. Prerequisite: Permission of program coordinator.

Italian Studies
Coordinator: Assistant Professor Tilson

The Italian Studies minor provides students with a strong interdisciplinary knowledge of Italian language and culture. It focuses on the study of Italy from a variety of perspectives: linguistic, literary, cultural, historical, artistic, philosophical and political. Study abroad in Italy is strongly encouraged.

A minor in Italian Studies requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITL 121</td>
<td>Elementary Italian I</td>
<td>4 sh*</td>
</tr>
<tr>
<td>ITL 122</td>
<td>Elementary Italian II</td>
<td>4 sh</td>
</tr>
<tr>
<td>ITL 221</td>
<td>Intermediate Italian I</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Twelve semester hours selected from the following: 12 sh

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARH 343</td>
<td>Renaissance Art History</td>
</tr>
<tr>
<td>FNA 265</td>
<td>Fine Arts in Italy (study abroad)</td>
</tr>
<tr>
<td>GST 214</td>
<td>Contemporary Italy (study abroad)</td>
</tr>
<tr>
<td>GST 216</td>
<td>The Italian-American Experience</td>
</tr>
<tr>
<td>GST 219</td>
<td>Modernity on Wheels</td>
</tr>
<tr>
<td>GST 274</td>
<td>Italy Heritage (study abroad)</td>
</tr>
<tr>
<td>GST 357</td>
<td>Rome Since the Renaissance: Literature, Art and Cinema</td>
</tr>
<tr>
<td>HST 131</td>
<td>Special Topics related to Italy</td>
</tr>
<tr>
<td>ITL 222</td>
<td>Intermediate Italian II</td>
</tr>
<tr>
<td>ITL 300</td>
<td>Studies in Italy/semester abroad program</td>
</tr>
<tr>
<td>ITL 321</td>
<td>Italian Conversation</td>
</tr>
<tr>
<td>ITL 373</td>
<td>History of Italian Cinema (Special Topics)</td>
</tr>
<tr>
<td>MUS 471</td>
<td>The Opera (Special Topics)</td>
</tr>
<tr>
<td>PHL 337</td>
<td>Dante’s Journey</td>
</tr>
<tr>
<td>THE 320</td>
<td>Commedia dell’Arte</td>
</tr>
</tbody>
</table>

TOTAL 20-24 sh
Electives not listed above may be approved on a case-by-case basis after consultation with the program coordinator.

* If a student places into the 122 level or higher, the student must take 20 semester hours for the Italian Studies minor, including at least eight semester hours of courses with the ITL prefix. Up to 12 hours of study abroad courses that emphasize Italian Studies’ subject matter may count for the minor as approved by the program coordinator.

**Journalism**

Journalism serves an essential role in democracy by keeping citizens informed about their communities and the world. News and information come in converged forms today – online sites and new media, newspapers and magazines, radio and television.

(See Communications for additional program requirements and course descriptions)

*A major in Journalism (print/online news concentration) requires the following courses:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GST 115</td>
<td>Public Speaking</td>
<td>2 sh</td>
</tr>
<tr>
<td>COM 100</td>
<td>Communications in a Global Age</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 110</td>
<td>Media Writing</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 220</td>
<td>Digital Media Convergence</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 230</td>
<td>Media History, Media Today</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 310</td>
<td>Reporting for the Public Good</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 320</td>
<td>Editing and Design</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 350</td>
<td>Web Publishing</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 381</td>
<td>Communications Internship</td>
<td>1 or 2 sh</td>
</tr>
<tr>
<td>COM 400</td>
<td>Media Law and Ethics</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 450</td>
<td>Multimedia Journalism</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 495</td>
<td>Great Ideas: Capstone in Communications</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

Choice of additional courses to total at least 52 COM hours

*Communications Total* 52 sh

**OVERALL TOTAL** 54 sh

*A major in Journalism (broadcast news concentration) requires the following courses:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
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<td>COM 100</td>
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<td>4 sh</td>
</tr>
<tr>
<td>COM 110</td>
<td>Media Writing</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 220</td>
<td>Digital Media Convergence</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 234</td>
<td>Broadcasting in the Public Interest</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 311</td>
<td>Broadcast News Writing</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 324</td>
<td>Television Production</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 351</td>
<td>Television News Reporting</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 381</td>
<td>Communications Internship</td>
<td>1 or 2 sh</td>
</tr>
<tr>
<td>COM 400</td>
<td>Media Law and Ethics</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
Latin American Studies

Coordinator: Associate Professor Van Bodegraven

The Latin American Studies minor offers an opportunity to study one of the most diverse and fascinating regions of the world. It enables students to supplement their major with coursework in two or more disciplines that explore the ways in which Latin Americans have expressed their culture and identity through language, literature and the arts. Courses in the minor investigate the collective aspirations of Latin Americans through their social and political behavior, cultural priorities and responses to community, national and international issues as well as the physical environment. With an area 2 1/2 times larger than the United States and a population nearly twice that of the United States, Latin America is a region of growing significance. Hemispheric relationships are expanding in terms of trade, immigration and cultural expression. The minor addresses Latin America as an important region of intrinsic interest, allowing students pursuing any major to expand their understanding of the history, social dynamics and cultural diversity of the area. The minor is beneficial to students interested in careers in teaching, law, health care, business, communications, the arts, nonprofits, government and other fields, and for students wishing to pursue graduate degrees with emphasis on area studies or foreign language.

A minor in Latin American Studies requires 20 semester hours selected from the following list of courses and others approved by the program coordinator. No more than 12 hours may be chosen from any one discipline. Up to 12 hours of study abroad courses that emphasize Latin American subject matter may count for the minor as approved by the program coordinator.

Language Proficiency

Intermediate proficiency in the Spanish language is a concurrent requirement for the minor. This requires students to either pass the Spanish placement exam at the SPN 122 level, pass SPN 122 for an additional four hours, or pass SPN 121 and SPN 122 for an additional eight hours beyond the 20 hours required for the minor. In other words, students must complete the Elon language proficiency requirement in Spanish. Students using these courses to meet the concurrent requirement are advised to take them as early as possible.

- ANT 364 Inequality and Development in Latin America 4 sh
- ENG 335 Latin American Literature and Culture 4 sh
- GST 342 Gender and Environment in South America 4 sh
- HST 341 Modern Central American History 4 sh
- HST 350 History of Brazil 2 sh
- HST 351 History of Mexico 2 sh
- HST 353 Colonial Latin America 4 sh
- HST 354 Modern Latin America 4 sh
- POL 368 Latin American Politics 4 sh
Leadership Studies

Coordinator: Associate Professor Leupold

The Leadership Studies minor is designed to expose students to theories and practices of leadership across disciplinary boundaries, shape their definition of leadership so that they understand it occurs at the interchange of vision and action, teach them the importance of vision being informed by values, provide them with practical skills in the art of working with people and encourage in them an understanding of leadership as a focus of academic inquiry and research.

A minor in Leadership Studies requires the following courses:

- LED 210 Foundations of Leadership Studies 4 sh
- PHL 215 Ethics and Decision Making 4 sh
- Four semester hours selected from the following:* 4 sh
  - MGT 420 Responsible Leadership
  - HSS 320 Group Dynamics and Leadership
  - PSY 368 The Psychology of Leadership
- Eight semester hours selected from the following: 8 sh
  (Only one elective may be at the 200-level.)
  - COM 232 Public Relations and Civic Responsibility
  - COM 234 Broadcasting in the Public Interest
  - COM 310 Reporting for the Public Good
  - COM 300 Persuasion
  - ENG 304 Understanding Rhetoric
  - HSS 213 Groups and Communities
  - HSS 320 Group Dynamics and Leadership
  
  (if MGT 420 or PSY 368 taken in the previous category)
  - HSS 411 Administration of Human Services Agencies
  - HST 338 Germany: War, Democracy and Hitler, 1914-1945
  - HST 357 America’s Civil War
  - HST 365 Social Movements in Post-Civil War America
  - POL 325 The Presidency
  - POL 326 The Congress
LED 210. FOUNDATION OF LEADERSHIP STUDIES  
4 sh
This course is designed as an introduction to Leadership Studies, which is based on the intersection of many disciplines: psychology, political science, philosophy, history, sociology and management, among others. The class will explore various definitions and theories of leadership as well as the basic principles of leadership, and will analyze examples of leadership in action. Students will examine leadership concepts within the context of their own lives and begin to define a personal leadership style. Offered fall and spring.

Management and International Business

Chair: Associate Professor Manring
Professors: Burpitt, Gowan, O’Mara, Valle
Associate Professors: Heinrichs, Nienhaus, Powell, Stevens, Yap
Assistant Professors: Ajjan, Benson, Buechler
Visiting Professor: Joyner

A major in Management requires the following courses:

Core Requirements  53-56 sh

See listing under Business for core requirements for the major.

ECO 301 Business Economics 4 sh
MGT 410 Project Management 4 sh
MGT 411 Process, Systems and Technology 4 sh
MGT 412 Advanced Organizational Behavior 4 sh

Select one course from the following: 4 sh

MGT 420 Responsible Leadership
MGT 421 Human Resource Management
MGT 422 Sustainable Enterprise Management
MGT 423 Innovation Dynamics
MGT 424 International Business Management

A course preapproved by the Chair of the Management Department that is not limited to LSB

TOTAL  73-76 sh

A major in International Business requires the following courses:

Core Requirements  53-56 sh

See listing under Business for core requirements for the major.

ECO 314 International Trade and Finance 4 sh
MKT 416 Global Marketing 4 sh
MGT 424 International Business Management 4 sh
One or more of these courses, ECO 314, MKT 416, MGT 424, could be replaced by a course or courses completed as part of a semester study abroad. Substitute courses must be upper-division business courses and may be taught in the language of the host institution. Any substitution must be approved in advance by the chair of the management department.

Other requirements for the International Business Major

- Intermediate proficiency in a modern foreign language: Proficiency can be demonstrated either by achieving an intermediate–mid level rating on an Oral Proficiency Interview (OPI) or a Simulated Oral Proficiency (SOPI), by passing a modern foreign language course at the 222 level, or by placement in the language above the 222 level.
- Completion of a study-abroad experience.

Elective hours

A student majoring in International Business will choose two upper-level courses 300/400 (4 sh), which have been pre-approved by the chair of the management department with consultation from the student’s advisor. At least one of these courses will be from the Arts and Sciences. For only those students double-majoring in International Business, these elective hours can count towards their upper-level general studies requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 323</td>
<td>PRINCIPLES OF MANAGEMENT AND ORGANIZATIONAL BEHAVIOR</td>
<td>4 sh</td>
</tr>
<tr>
<td>MGT 410</td>
<td>PROJECT MANAGEMENT</td>
<td>4 sh</td>
</tr>
<tr>
<td>MGT 411</td>
<td>PROCESS, SYSTEMS AND TECHNOLOGY</td>
<td>4 sh</td>
</tr>
<tr>
<td>MGT 412</td>
<td>ADVANCED ORGANIZATIONAL BEHAVIOR</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

TOTAL 73-76 sh*

*Total number of hours depends on the amount of foreign language needed to meet the foreign language requirement.
related to understanding and predicting human behavior in organizations. Topics addressed include: personality, perception, job design and goal-setting, appraisal, group dynamics, decision making, cooperation and conflict, organizational structure and culture, power and organizational politics, organizational learning, innovation and change management, and organizational development. Prerequisite: MGT 323. Offered fall and spring.

MGT 420. RESPONSIBLE LEADERSHIP 4 sh
This course addresses the characteristics, behaviors and responsibilities required of contemporary organizational leaders. While focusing on the traditional topics (individual differences and traits of leaders, behaviors of leaders, role of power, types and styles of leadership, and theories of motivation), the student will also be introduced to some nontraditional approaches (nontraditional metaphors, leadership as an art and individual differences of followers and followership) to understanding leaders and leadership. The responsibilities of leadership will be specifically addressed in relationship to the concepts of organizational success and effectiveness, social responsibility and ethical decision making. Prerequisite: MGT 323. Offered fall or spring.

MGT 421. HUMAN RESOURCE MANAGEMENT 4 sh
Effective human resource management is critical to the long-term value of an organization and ultimately to its success and survival. All aspects of human resource management including how organizations interact with the environment; acquire, develop and compensate human resources; design and measure work can help organizations meet their competitive challenges and create value. This course looks at the role of strategic human resource planning, recruitment and selection, performance management, developing and compensating human resources, the legal environment and employee relations, collective bargaining and labor relations, using technology to increase HRM effectiveness and global issues in HRM. Prerequisite: MGT 323. Offered fall or spring.

MGT 422. SUSTAINABLE ENTERPRISE MANAGEMENT 4 sh
This course provides a foundation in integrative sustainable business strategies through which enterprises can improve the natural and social environments while providing increased financial returns and preserving human and natural capital. Students will analyze best practices for measuring, reporting and managing the “triple bottom line” while enhancing social, environmental and economic equity. Students will gain an understanding of stakeholder oriented approaches to managing complex interdependent business systems and supplier networks. This course incorporates a number of business case studies demonstrating how industrial designers and business managers apply sustainable management practices to concurrently increase profits, develop innovative products and services, eliminate waste and toxins, manage business risks and increase human social capital. Prerequisites: BUS 303 or MGT 323 or approval by the department chair. Offered fall or spring.

MGT 423. INNOVATION DYNAMICS 4 sh
This course explores individual creativity and organizational innovation. In today’s global economy, these topics have become critical imperatives for companies big and small. The course begins at the individual level by focusing on the creative process, then shifts to examine proven methods for leading groups to generate creative ideas and initiatives and concludes at the organizational level by studying organizational designs and structures shown to encourage innovation. Prerequisites: BUS 303 or MGT 323. Offered fall or spring.

MGT 424. INTERNATIONAL BUSINESS MANAGEMENT 4 sh
This course covers business management from the perspective of the current global business environment. Students examine the overall nature of international business, the foreign environments that international businesses face and the unique situations associated with doing business across international borders. Prerequisite: MGT 323. Offered fall or spring.
# Marketing and Entrepreneurship

**Chair:** Associate Professor Hodge  
**Professors:** Burbridge, Honeycutt  
**Associate Professors:** Garber, Strempek  
**Assistant Professor:** Rodriguez  
**Senior Lecturer and Executive Director of the Doherty Center for Entrepreneurial Leadership:** Palin  
**Senior Lecturer:** Rich

A major in Marketing requires the following courses:

<table>
<thead>
<tr>
<th>Core Requirements</th>
<th>53-56 sh</th>
</tr>
</thead>
<tbody>
<tr>
<td>See listing under Business for core requirements for the major.</td>
<td></td>
</tr>
<tr>
<td>ECO 301 Business Economics</td>
<td>4 sh</td>
</tr>
<tr>
<td>MKT 414 Marketing Research</td>
<td>4 sh</td>
</tr>
<tr>
<td>Choose three courses from the following:</td>
<td>12 sh</td>
</tr>
<tr>
<td>MKT 412 New Products Marketing</td>
<td></td>
</tr>
<tr>
<td>MKT 413 Integrated Marketing Communications</td>
<td></td>
</tr>
<tr>
<td>MKT 415 Consumer Behavior</td>
<td></td>
</tr>
<tr>
<td>MKT 416 Global Marketing</td>
<td></td>
</tr>
<tr>
<td>MKT 417 Business-to-Business Marketing</td>
<td></td>
</tr>
<tr>
<td>MKT 418 Professional Selling</td>
<td></td>
</tr>
<tr>
<td>MKT 419 Sales Management</td>
<td></td>
</tr>
<tr>
<td>MKT 473 Special Topics in Marketing</td>
<td></td>
</tr>
</tbody>
</table>

A course preapproved by the chair of the Marketing Department that is not limited to LSB courses.

Marketing majors who choose to pursue a focus in sales must take MKT 418 and MKT 419 as two of their three electives. These students are strongly advised to complete their internship in the area of professional sales.

**TOTAL** 73-76 sh

Marketing minor in Professional Sales* requires the following courses:

| ECO 111 Principles of Economics | 4 sh |
| BUS 202 Business Communication | 4 sh |
| MKT 311 Principles of Marketing | 4 sh |
| MKT 418 Professional Selling | 4 sh |
| MKT 419 Sales Management | 4 sh |
| Choose one course from the following: | 4 sh |
| MKT 412 New Products Marketing |
| MKT 413 Integrated Marketing Communications |
| MKT 414 Marketing Research |
| MKT 415 Consumer Behavior |
| MKT 416 Global Marketing |
| MKT 417 Business-to-Business Marketing |
| MKT 473 Special Topics in Marketing |
A course preapproved by the Director of the Chandler Family Professional Sales Center; this course is not limited to LSB courses.

**TOTAL** 24 sh

*Students with a major in Marketing may not declare a minor in Professional Sales.

**A major in Entrepreneurship requires the following courses:**

Core Requirements 53-56 sh

See listing under Business for core requirements for the major.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO</td>
<td>301 Business Economics</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENT</td>
<td>350 Entrepreneurship Skills</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENT</td>
<td>355 Applications of Entrepreneurship</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENT</td>
<td>460 New Venture Planning</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Select one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT</td>
<td>423 Innovation Dynamics</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENT</td>
<td>340 Venture Funding</td>
<td>4 sh</td>
</tr>
<tr>
<td>MKT</td>
<td>412 New Products Marketing</td>
<td></td>
</tr>
</tbody>
</table>

A 300-400 level course preapproved by the Executive Director of the Doherty Center for Entrepreneurial Leadership which is not limited to LSB courses.

**TOTAL** 73-76 sh

Entrepreneurship majors need to complete their approved internship in an area of entrepreneurship. The internships may include, but are not limited to, new venture entrepreneurship, corporate entrepreneurship, social entrepreneurship and venture finance. This requirement will be addressed through advising and coordinated with the LSB internship coordinator.

**A minor in Entrepreneurship requires the following courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT</td>
<td>250 Introduction to Entrepreneurship</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENT</td>
<td>340 Venture Funding</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENT</td>
<td>350 Entrepreneurship Skills</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENT</td>
<td>460 New Venture Planning</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Select one course from the following:

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</tr>
</thead>
<tbody>
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<td>423 Innovation Dynamics</td>
<td>4 sh</td>
</tr>
<tr>
<td>ENT</td>
<td>355 Applications of Entrepreneurship</td>
<td></td>
</tr>
</tbody>
</table>

A 300-400 level course preapproved by the Executive Director of the Doherty Center for Entrepreneurial Leadership which is not limited to LSB courses.

**TOTAL** 20 sh

**Marketing Courses**

**MKT 311. PRINCIPLES OF MARKETING** 4 sh

This study of the marketing and distribution of goods and services includes buyer behavior, the marketing functions, commodity and industrial markets, merchandising considerations, price policies and governmental regulation of competition. Prerequisites: ECO 111 and
BUS 202. Sophomore standing required. Course credit not given for both BUS 304 and MKT 311. Offered fall and spring.

MKT 412. NEW PRODUCTS MARKETING 4 sh

This course will focus on how new products are developed and marketed, including ideation, consumer insights and communication strategies. Using a combination of case studies and real-world “best practice” examples, this class will highlight the factors that contribute to new product success, particularly how to identify “big ideas” and bring them to fruition. This course is ideal for students considering a career in marketing as well as those contemplating entrepreneurial opportunities. Prerequisite: MKT 311.

MKT 413. INTEGRATED MARKETING COMMUNICATIONS 4 sh

This course focuses on management of the communications aspects of marketing strategy. Those aspects of the marketing mix most pertinent to marketing communications objectives, in particular targeting, segmentation and positioning, are reviewed and expanded upon. Models and modes of communication, both verbal and pictorial, are discussed. Traditional media including advertising, personal selling, sales promotion, direct marketing and public relations, and their strengths and weaknesses, are discussed, as well as new digital media and viral marketing. Prerequisite: MKT 311. Offered spring.

MKT 414. MARKETING RESEARCH 4 sh

This course provides an introduction to the different methods of marketing research and the application of those methods to real problems. This is a highly applied course; students will learn by conducting marketing research, not just by reading about it. Students will get “hands on” experience by developing a research program, collecting and analyzing data, reporting and presenting results, and making final strategic recommendations. While this is not a course in statistics, students will rely heavily on statistical principles and statistical analyses to glean insights from the data. Prerequisites: MKT 311 and ECO 203. Offered fall and spring.

MKT 415. CONSUMER BEHAVIOR 4 sh

This course for the marketing concentration focuses on the application of the behavioral sciences to understand consumer behavior. Emphasis is placed on developing an appreciation for the scope of the topic, understanding the essentials underlying consumer behavior and developing an ability to relate such understanding to important issues faced by marketing practitioners. Traditional research-oriented topics include attention and perception, memory, learning, attitude formation, persuasion, motivation, behavioral decision-theory and environmental (e.g., social and cultural) influences. All topic presentations will include a discussion of practitioner-oriented managerial implications. Prerequisite: MKT 311. Offered fall.

MKT 416. GLOBAL MARKETING 4 sh

This course for the marketing and International business concentration explores the scope of global marketing. Examining the impact the global environment has upon marketing decisions and strategy formulations. Through analyses of different types of markets, students develop an understanding and appreciation of how the world is “shrinking” and the influence this has on U.S. businesses, individuals, households and institutions. Students will monitor the global environment and report their findings on specific regions of the world to the class in order to make students more aware of the global environment. Prerequisite: MKT 311. Offered fall and spring.

MKT 417. BUSINESS-TO-BUSINESS MARKETING 4 sh

This course for the marketing concentration focuses on exploring and understanding business-to-business (B2B) marketing. The study of B2B marketing provides an opportunity for students to synthesize their knowledge of B2B or industrial marketing with other, highly-related business disciplines (accounting, finance and management) in order to move products through the supply chain from producer to the ultimate consumer. B2B relationships, interfaces, strategies, problems and performance measures are explored through the case method. Prerequisite: MKT 311.
MKT 418.  PROFESSIONAL SELLING  4 sh
This course focuses on developing relationships by developing powerful interpersonal communication skills, understanding buyer motivations and adding value to clients through long-term relationships. This course combines theory with real-world examples to allow students to understand how professional salespersons implement marketing plans and successfully undertake their role in identifying and satisfying customer needs. Prerequisite: MKT 311.

MKT 419.  SALES MANAGEMENT  4 sh
The sales management course is an analysis of professional selling practices with emphasis on the selling process and sales management, including the development of territories, determining potentials and forecasts, and setting sales quotas. Students also learn how salespersons are recruited, trained, motivated and evaluated in a global economy. Prerequisite: MKT 311. Offered fall.

MKT 420.  CUSTOMER RELATIONSHIP MANAGEMENT  4 sh
The Customer Relationship Management (CRM) course is designed to introduce students to the utilization of technology in professional sales. This course focuses on sales force automation and principles of customer relationship management (CRM). Curriculum will introduce students to CRM concepts and functionality for sales representatives and managers. Students will develop full proficiency in using CRM systems through hands on use of Salesforce.com. Prerequisite: MKT 311. Offered spring.

Entrepreneurship Courses

ENT 250.  INTRODUCTION TO ENTREPRENEURSHIP  4 sh
This course introduces students to entrepreneurship concepts, topics and terminology. Specifically, the course addresses the core concepts of entrepreneurship, its role in our economy and its potential impact on career opportunities. Students will develop an understanding of the entrepreneurial thought process and characteristics of entrepreneurs as they learn about opportunity recognition; industry, competitor and market analysis; financial issues; and planning and structuring an entrepreneurial venture. Offered spring.

ENT 340.  VENTURE FUNDING  4 sh
This course addresses the financing of entrepreneurial ventures. Topics include identifying appropriate sources of funding for new ventures, reviewing potential risks and rewards, determining valuation of new ventures, analyzing funding requirements for a new venture, addressing the funding rounds, preparing pro-formas for new ventures and developing funding proposals for a new venture. Emphasis is placed on scalable venture opportunities. Offered fall.

ENT 350.  ENTREPRENEURSHIP SKILLS  4 sh
In this course, students learn about and engage in activities related to success as an entrepreneur. Specifically, students will participate in self-exploration exercises to identify strengths and weaknesses, develop communication skills, learn team building strategies, and develop networking and negotiation skills identified as critical for building strong entrepreneurial ventures. Offered fall.

ENT 355.  APPLICATIONS OF ENTREPRENEURSHIP  4 sh
This course provides students an inside view of how entrepreneurial thinking can be applied in many environments including social ventures, corporations, venture capital and new ventures. Working with mentors from the business community, students will develop a basic knowledge of entrepreneurship through analysis of venture plans and projects. Students successfully completing this course will learn from the viewpoint of investors how to identify opportunities, assess required resources, assess risk, plan and implement an entrepreneurial project, and develop an understanding of value propositions. Emphasis is placed on scalable venture opportunities. Offered spring.
ENT 460. NEW VENTURE PLANNING 4 sh

This course focuses on developing business plans for new ventures and the entrepreneurial process of new venture creation. Topics covered include idea conception, targeting specific research resources, competition analysis, risk management, identifying funding strategies, preparing pro-forma financial projections and consideration of milestones, exit strategies, and social responsibility. Emphasis is placed on scalable venture opportunities. Offered fall or spring.

Mathematics

Chair: Professor J. Clark
Professors: Francis, T. Lee
Associate Professors: Allis, Arangala, J. Beuerle, Plumblee, Russell
Assistant Professors: Awtrey, Yokley
Senior Lecturers: L. Beuerle, Mays
Adjuncts: Foster, Metts, Stuart, Walton, Zarin

The Department of Mathematics and Statistics offers programs leading to the Bachelor of Arts or Bachelor of Science degree with a major in Mathematics or Statistics and a B.S. degree with a major in Applied Mathematics. The A.B. degree offers concentrations in Applied Mathematics, Pure Mathematics and Teacher Licensure. The Applied Mathematics concentration is specifically intended to be a second major for students majoring in an area that uses mathematics. Minors in mathematics, applied mathematics and statistics are also available for students majoring in another discipline. (Students may not double major or major and minor in Mathematics and Applied Mathematics.)

Mathematics is an excellent major for the student whose immediate objective is to acquire a good liberal arts education. Students who complete a bachelor’s degree in mathematics may choose several postgraduate alternatives, including work in a variety of industries, an advanced degree in either mathematics or another closely related field (computer science, biometry, information science, statistics or operations research) or law school.

Students who combine mathematics with another discipline that uses mathematics can also pursue graduate work in the second discipline. These areas include biology, chemistry, economics, medicine, physics and many of the social science disciplines. In addition, mathematics majors may teach at the secondary level or work in business, industry or government positions which emphasize analytical reasoning.

The Bachelor of Arts in Mathematics requires the following core courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 221</td>
<td>Calculus II</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 321</td>
<td>Multivariable Calculus and Analytic Geometry</td>
<td>4 sh</td>
</tr>
<tr>
<td><strong>Total Core Courses</strong></td>
<td></td>
<td><strong>12 sh</strong></td>
</tr>
</tbody>
</table>

Students must also complete one of the following concentrations.

Applied mathematics concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 206</td>
<td>Discrete Structures</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 306</td>
<td>Applied Matrix Theory</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
Choose one course from the following:

- MTH/STS 212 Statistics in Application  
- MTH 265 Applied Mathematical Modeling  
- MTH/STS 341 Probability and Statistics  
- MTH 421 Differential Equations

A 300/400 level MTH course or course from an allied field, approved by the mathematics department*  

- CSC 130 Computer Science I

A related experiential/capstone experience approved by the department:  
- MTH/STS 460 Seminar I  
- MTH 481 Internship in Mathematics  
- MTH 499 Independent Research

**TOTAL 38-40 sh**

**Pure mathematics concentration**

Core courses  
- MTH 231 Mathematical Reasoning  
- MTH 310 Mathematics for Middle Grades and Secondary Teachers  
- MTH 311 Linear Algebra  
- MTH 312 Abstract Algebra  
- MTH 331 Modern Geometry

MTH electives*  
- May include one course approved by the mathematics department from an allied field. At least four hours need to be from MTH course(s) at the 400 level.

A related course from outside of the mathematics department approved by the mathematics department.*  

Approved courses include:  
- CSC 130 Computer Science I  
- PHY 201 General Physics I

A related experiential/capstone experience approved by the department:  
- MTH/STS 460 Seminar I  
- MTH 481 Internship in Mathematics  
- MTH 499 Independent Research

**TOTAL 38-40 sh**

*The electives and the related course from outside of mathematics are expected to form a cohesive plan and must be approved by the mathematics department.

**Teacher licensure concentration**

Core Courses  
- MTH/STS 212 Statistics in Application  
- MTH 231 Mathematical Reasoning  
- MTH 310 Mathematics for Middle Grades and Secondary Teachers  
- MTH 311 Linear Algebra  
- MTH 312 Abstract Algebra  
- MTH 331 Modern Geometry

**TOTAL 12 sh**
A student completing a Bachelor of Arts in Mathematics with the teacher licensure concentration can earn a Bachelor of Science in Mathematics with teacher licensure by successfully completing MTH 425, MTH 460 and MTH 461.

**A Bachelor of Science in Mathematics requires the following courses:**

- MTH 121 Calculus I
- MTH 221 Calculus II
- MTH 231 Mathematical Reasoning
- MTH 311 Linear Algebra
- MTH 312 Abstract Algebra
- MTH 321 Multivariable Calculus and Analytic Geometry
- MTH 425 Analysis
- MTH/STS 460 Seminar I
- MTH/STS 461 Seminar II

One course selected from:
- MTH 331 Modern Geometry
- MTH/STS 341 Probability and Statistics
- MTH 351 Theory of Computation
- MTH 415 Numerical Analysis
- MTH 421 Differential Equations

MTH elective(s) at the 300-400 level (excluding MTH 481)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 130</td>
<td>Computer Science I</td>
<td>4 sh</td>
</tr>
<tr>
<td>One CSC course numbered 200 or above</td>
<td>4 sh</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** 56 sh

**A Bachelor of Science in Applied Mathematics requires the following courses:**

- MTH 121 Calculus I
- MTH 221 Calculus II
- MTH 321 Multivariable Calculus and Analytic Geometry
MTH 206  Discrete Structures  4 sh
MTH 265  Applied Mathematical Modeling  4 sh
MTH 415  Numerical Analysis  4 sh
MTH 421  Differential Equations  4 sh

One course selected from:
   MTH/STS 212  Statistics in Application  4 sh
   MTH/STS 341  Probability and Statistics  4 sh

One course selected from:
   MTH 306  Applied Matrix Theory  4 sh
   MTH 311  Linear Algebra  4 sh

Two 300/400 MTH classes, or a sequence of two courses
from an allied field approved by the mathematics department:*  8 sh
CSC 130  Computer Science I  4 sh

One CSC course numbered 200 or above  4 sh

A related experiential/capstone experience approved by the department:  4 sh
   MTH/STS 460/461  Seminar I/II
   MTH 481  Internship in Mathematics
   MTH 499  Independent Research

**TOTAL**  56 sh

*The electives and the related course from outside of mathematics are expected to form a cohesive plan and must be approved by the mathematics department.

**A Bachelor of Science degree in Engineering Mathematics:** See requirements listed under Engineering.

**A minor in Mathematics requires the following courses:**

MTH 121  Calculus I  4 sh
MTH 221  Calculus II  4 sh
MTH 231  Mathematical Reasoning  4 sh
MTH 311  Linear Algebra  4 sh

Elective(s) from MTH 112 or MTH courses numbered 200 or above
(excluding MTH 208, MTH 209 and MTH 481), CSC courses or ECO 203  4 sh

**TOTAL**  20 sh

**A minor in Applied Mathematics requires the following courses:**

MTH 121  Calculus I  4 sh
MTH 221  Calculus II  4 sh

Eight hours selected from the following:  8 sh
   MTH 206  Discrete Mathematics **and**
   MTH 306  Applied Matrix Theory **or**
   MTH 321  Multivariable Calculus and Analytic Geometry **and**
   MTH 421  Differential Equations
A student may be exempt from MTH 112 and/or 121 by demonstrating proficiency.

Once a student has received credit, including transfer credit for a course, credit may not be received for any course with material that is equivalent to it or is a prerequisite for it without permission of the mathematics department.

**MTH 100. ALGEBRAIC CONCEPTS**

This course is designed to develop and maintain proficiency in basic algebra skills and to prepare students for future mathematics work in college courses. Topics include exponents, factoring, equation solving, rational expressions, radicals, quadratic equations, graphs of functions, descriptive statistics and regression. A specific graphing calculator is required. This course must be completed with “C-” or better before taking any other mathematics course. Elective credit only. Offered fall.

**MTH 112. GENERAL STATISTICS**

This course provides an introduction to modern statistics. Students will analyze and critically interpret real world data. This course emphasizes written and oral communication, use of technology and collaborative learning. Topics covered include descriptive statistics, basic probability, inferential statistics including one-sample confidence intervals and hypothesis testing and regression analysis. A specific graphing calculator is required. Prerequisite: MTH 100 or placement exemption. Offered fall and spring.

**MTH 116. APPLIED CALCULUS**

This introduction to linear systems and differential calculus emphasizes applications to problem solving in business and economics. Students gain enhanced ability to analyze a problem mathematically and study the following topics: functions, limits, derivatives and applications of derivatives. No credit for students with MTH 121 or its exemption. A specific graphing calculator is required. Prerequisite: MTH 100 or placement exemption. Offered fall, winter and spring.

**MTH 118. MATH MODELING**

This course is intended to serve as an introduction to mathematical modeling. Mathematical modeling examines various situations from the world around us. This course will emphasize interesting applications of mathematics together with the ability to construct useful mathematical models to analyze them critically, and to communicate quantitative concepts effectively. Offered Winter Term.

**MTH 121. CALCULUS I**

This rigorous first course in single variable calculus builds upon knowledge of algebra, trigonometry and functions. Students are introduced to the study of rates of change and accumulation of functions. Topics include limits and continuity, derivatives and their applications, differentiation rules, antiderivatives, the definite integral and the fundamental theorem of calculus. A specific graphing calculator is required. Prerequisite: Placement. Offered fall and spring.

**MTH 206. DISCRETE STRUCTURES**

This course offers an intensive introduction to discrete mathematics as it is used in computing sciences. Topics include functions, relations, propositional and predicate logic, simple circuit logic, proof techniques and elementary and discrete probability. Prerequisite: MTH 116 or MTH 121 or CSC 130 or currently taking CSC 130. Offered fall.

**MTH 208. MATHEMATICS FOR ELEMENTARY AND MIDDLE GRADES TEACHERS I**

This course is designed to provide students majoring in elementary education, special education or middle grades education with a deep conceptual knowledge for teaching
mathematics. The main focus is the integration of mathematical content with the process standards (problem solving, communication, reasoning, representation, and connections within and outside of mathematics). Content includes numeration systems, set theory, number theory, rational and irrational numbers (concepts, operations, properties and algorithms) and algebraic reasoning. Prerequisite: MTH 112 or MTH 121 or higher. Offered fall, winter and spring.

**MTH 209. MATHEMATICS FOR ELEMENTARY AND MIDDLE GRADES TEACHERS II**  
This course is designed to provide students majoring in elementary education, special education or middle grades education with a deep conceptual knowledge for teaching mathematics. The main focus is the integration of mathematical content with the process standards (problem solving, communication, reasoning, representation, and connections within and outside of mathematics). Content includes geometry, measurement and selected topics in probability and statistics. Prerequisite: MTH 112 or MTH 121 or higher. Offered fall, winter and spring.

**MTH/STS 212. STATISTICS IN APPLICATION**  
An introduction to concepts in statistics at a deeper quantitative level than that offered in MTH 112. This course emphasizes rationales, applications and interpretations using advanced statistical software. Examples are drawn primarily from economics, education, psychology, sociology, political science, biology and medicine. Topics include introductory design of experiments, data acquisition, graphical exploration and presentation, descriptive statistics, one- and two-sample inferential techniques, simple/multiple regression, goodness of fit and independence and one-way/two-way analysis of variance (ANOVA). Written reports link statistical theory and practice with communication of results. Recommended for students pursuing quantitatively-based careers. Prerequisites: MTH 112, MTH 121, placement exemption or permission of the statistics program coordinator. Cross-listed with STS 212. Offered fall and spring.

**MTH 221. CALCULUS II**  
Students explore applications of the definite integral, differentiation and integration of transcendental functions, techniques of integration, indeterminate forms, improper integrals, infinite sequences and series. A specific graphing calculator is required. Prerequisite: MTH 121. Offered fall and spring.

**MTH 231. MATHEMATICAL REASONING**  
This study of proof techniques and reasoning skills introduces the student to another side of mathematics, namely proof. The student’s preceding courses (e.g., precalculus and calculus) usually focus on calculations. Topics include mathematical logic, sets, mathematical induction, combinatorics, relations and countability arguments. Prerequisite: MTH 121. Offered fall and spring.

**MTH 265. APPLIED MATHEMATICAL MODELING**  
This course is intended to familiarize students with modeling techniques that apply to scientific and industrial situations. Topics discussed may include growth and decay models, the concept of saturable processes, elementary differential equation models, and the use of these models and concepts in various disciplines. Prerequisite: MTH 221. Offered fall.

**MTH 306. APPLIED MATRIX THEORY**  
Students are introduced to solutions to systems of linear equations, linear transformations, determinants, vector spaces, orthogonality, matrix algebra, eigenvalues, matrix norms, least squares, singular values, linear programming and approximation techniques. A specific graphing calculator is required. Prerequisite: MTH 206 or MTH 231. Offered spring.

**MTH 310. MATHEMATICS FOR MIDDLE GRADES AND SECONDARY TEACHERS**  
The course presents students with mathematics problems, open-ended mathematical investigations, challenges to organize and communicate information from these investigations and the use of technology and manipulative tools to accomplish such tasks. Problems consist of applications of mathematics content from the secondary curriculum. The content includes topics such as relations, functions and their graphs; geometric concepts and proofs;
measurement; conics; trigonometry; graph theory; number theory; data analysis and probability. The course also provides a historical context for mathematics problems including the contributions from various cultures. Offered fall of odd-numbered years.

**MTH 311. LINEAR ALGEBRA**

This introductory course in linear algebra includes systems of linear equations, matrices, determinants, vector spaces, eigenvalues, eigenvectors, orthogonality and linear transformations. Proofs of the major theorems and a variety of applications are also covered. Prerequisites: MTH 221, 231. Offered fall and spring.

**MTH 312. ABSTRACT ALGEBRA**

Students who have had an introduction to the rules of logic and proof construction are introduced to abstract algebra, including topics such as functions, groups (cyclic, permutation, normal and quotient), properties of groups, rings, fields, homomorphisms, isomorphisms, real and complex numbers and polynomials. Prerequisites: MTH 231 and 311. Offered spring.

**MTH 321. MULTIVARIABLE CALCULUS AND ANALYTIC GEOMETRY**

This course provides a study of advanced techniques of differential and integral calculus, including plane curves and polar coordinates, three-dimensional analytic geometry including vectors, differentiation and integration of multivariable functions and applications. A specific graphing calculator is required. Prerequisite: MTH 221. Offered fall and spring.

**MTH 331. MODERN GEOMETRY**

This rigorous treatment of axiomatic foundations of Euclidean geometry through Hilbert’s axioms includes the role and independence of the parallel postulate (revealed through models and neutral geometry), straightedge and compass constructions, historical and philosophical implications of the discovery of non-Euclidean geometry with an introduction to both hyperbolic and elliptic geometry. Prerequisite: MTH 231. Offered fall of odd-numbered years.

**MTH/STS 341. PROBABILITY THEORY AND STATISTICS**

Topics include axiomatic probability, counting principles, discrete and continuous random variables and their distributions, sampling distributions, central limit theorem, confidence intervals and hypothesis testing. Prerequisite: MTH 221. Offered fall of even-numbered years. Cross-listed with STS 341.

**MTH 351. THEORY OF COMPUTATION**

Cross-listed with CSC 351. See CSC 351 for description.

**MTH 371. SPECIAL TOPICS**

Topics are selected to meet the needs and interests of students.

**MTH 408. 21st CENTURY TECHNOLOGY IN MATHEMATICS**

This course builds off the solid foundation of information and communication technologies gained in CIS 220 and focuses these familiar technologies on the mathematics classroom. This course also features a thorough understanding of the use of technology in mathematics instruction by examining discipline-specific software as essential tools for 21st century teachers. Topics include numbers and operations, geometry, algebra, data analysis and statistics with a focus on problem solving. Prerequisite: CIS 220. Co-requisites: MTH 331 and 341.

**MTH 415. NUMERICAL ANALYSIS**

This introduction to numerical analysis includes floating point arithmetic, interpolation, approximation, numerical integration and differentiation, nonlinear equations and linear systems of equations. Prerequisites: CSC 130; MTH 306 or MTH 311; 321; or permission of the instructor. Cross-listed with CSC 415. Offered spring of even-numbered years.

**MTH 421. DIFFERENTIAL EQUATIONS**

Topics in this in-depth study of methods of solution and applications of ordinary differential equations include first-order differential equations (linear and nonlinear), linear differential
equations of higher order, mathematical models using second-order equations, systems of
differential equations and numerical techniques including Euler, Improved Euler and the
Runge-Kutta method. Computers or programmable calculators may be used. Prerequisite:
MTH 321. Offered spring.

**MTH 425. ANALYSIS**

This course provides an in-depth study of topics introduced in the three-course calcul-lass sequence, including sequences and series, continuity and differentiation of functions
of a single variable, the Riemann integral and the fundamental theorem of calculus.
Prerequisites: MTH 312 and 321. Offered fall.

**MTH/STS 460. SEMINAR I**

This course prepares mathematics and statistics majors for Seminar II, the capstone seminar,
by instruction and experience in library research and formal oral presentations on advanced
mathematical and statistical topics selected by the instructor and students. Prerequisite:
Junior/senior standing or permission of the department. Offered fall. Cross-listed with
STS 460.

**MTH/STS 461. SEMINAR II**

In this capstone experience for senior mathematics and statistics majors, students conduct
extensive research on a mathematical or statistical topic and formally present their work in
writing and orally. Course requirements may include a satisfactory score on the ETS major
field achievement test depending on major. Prerequisite: MTH/STS 460 and junior/senior
standing or permission of the department. Offered fall. Cross-listed with STS 461.

**MTH 471. SPECIAL TOPICS**

Topics are selected to meet the needs and interests of the students.

**MTH 481. INTERNSHIP IN MATHEMATICS**

The internship provides advanced work experiences in some aspect of mathematical
sciences and is offered on an individual basis when suitable opportunities can be arranged.
Prerequisite: permission of the department.

**MTH 491. INDEPENDENT STUDY**

Prerequisite: Permission of the department. May be repeated with different topics for up to
a total of eight semester hours.

**Media Arts and Entertainment**

Media Arts and Entertainment focuses on creative storytelling through broadcast, cinema
and new media. These art forms can communicate both fact and fiction through words,
sounds, images, actions and music.

(See Communications for additional program requirements and course descriptions)

*A major in Media Arts and Entertainment (broadcast and new media concentration) requires the following courses:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GST</td>
<td>115 Public Speaking</td>
<td>2 sh</td>
</tr>
<tr>
<td>COM</td>
<td>100 Communications in a Global Age</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM</td>
<td>110 Media Writing</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM</td>
<td>220 Digital Media Convergence</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM</td>
<td>234 Broadcasting in the Public Interest</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM</td>
<td>314 Writing for Broadcast and New Media</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM</td>
<td>324 Television Production</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

At least one course selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM</td>
<td>360 Interactive Media</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
COM 361 Media Management and Sales
COM 362 Communication Research
COM 381 Communications Internship 1 or 2 sh
COM 400 Media Law and Ethics 4 sh
COM 454 Producing for Broadcast and New Media 4 sh
COM 495 Great Ideas: Capstone in Communications 2 sh
Choice of additional courses to total at least 52 COM hours

Communications Total 52 sh

OVERALL TOTAL 54 sh

**A major in Media Arts and Entertainment (cinema concentration) requires the following courses:**
GST 115 Public Speaking 2 sh
COM 100 Communications in a Global Age 4 sh
COM 110 Media Writing 4 sh
COM 220 Digital Media Convergence 4 sh
COM 236 Development and Influence of Cinema 4 sh
COM 316 Screenwriting 4 sh
COM 326 Cinema Production 4 sh
At least one course selected from the following: 4 sh
   COM 355 The Documentary
   COM 356 Cinema Aesthetics
COM 381 Communications Internship 1 or 2 sh
COM 400 Media Law and Ethics 4 sh
At least one course selected from the following: 4 sh
   COM 455 Producing the Documentary
   COM 456 Producing Narrative Cinema
COM 495 Great Ideas: Capstone in Communications 2 sh
Choice of additional courses to total at least 52 COM hours

Communications Total 52 sh

OVERALL TOTAL 54 sh

**Middle East Studies**

**Coordinator: Professor Digre**

With its rich religious, historical and cultural diversity, the Middle East has long captured humanity’s imagination. Today the region’s strategic roles in global politics, conflict and economics command the world’s attention, inviting careful study and research. Elon’s Middle East Studies minor offers students an interdisciplinary program, designed to promote a deeper understanding of regional issues and perspectives.
A minor in Middle East Studies requires 20 semester hours selected from the following list of regularly offered courses as well as special topic and general studies classes. Students are strongly encouraged to study a Middle Eastern language and study abroad within the region. Up to 12 semester hours of study abroad courses that emphasize the Middle East may count for the minor, as approved by the program coordinator. No more than 12 semester hours of coursework may be chosen from one discipline. Students interested in pursuing further study of the region should consider an international studies major with a Middle East regional concentration.

A minor in Middle East studies requires the following courses:

Twenty semester hours selected from the following: 20sh

- ARB 121 Elementary Arabic I
- ARB 122 Elementary Arabic II
- ARB 270 Intermediate Arabic I
- ARH 342 Islamic Art: Ornament and Idolatry
- ENG 385 Middle Eastern Literature
- HST 316 The Modern Middle East
- PHL 350 The Spirit of Israel
- POL 365 The Politics of Islamic Fundamentalism in the Middle East
- POL 366 Middle East Politics
- REL 203 Islamic Traditions
- REL 205 Jewish Traditions
- REL 211 Hebrew Bible/Old Testament
- REL 363 Women in Islam: Veneration, Veils and Voices
- REL 364 Approaching the Quran
- REL 365 Jihad in Historical and Global Perspective
- REL 366 Jews and Muslims: Symbiosis, Cooperation and Conflict

Military Science

Elon University, in cooperative agreement with North Carolina A&T State University, offers an Army Reserve Officers’ Training Corps (ROTC) program and Air Force ROTC program. The Air Force ROTC program is offered totally on the North Carolina A&T State University campus. Students must register for the required aerospace science courses through the Greater Greensboro Consortium program in the Elon University Registrar’s Office.

The Army Reserve Officers’ Training Corps program provides a viable elective program for both male and female students. The program is divided into a basic course and an advanced course. These courses are normally completed during a four-year period. However, it is possible for veterans and other students who elect to undergo special training to complete the program in two years.

Programs of Instruction

Programs of instruction for the Army ROTC include a four-year program and a two-year program. The four-year program consists of a two-year basic course, a two-year advanced course and the advanced ROTC Summer Camp. The two-year program encompases a basic ROTC Summer Camp, a two-year advanced course and the advanced ROTC Summer Camp.
**Basic Course**

The basic course is normally taken during the freshman and sophomore years. The purpose of this instruction is to introduce the student to basic military subjects: branches of the Army; familiarization with basic weapons, equipment and techniques; military organization and functions; and the techniques of leadership and command. It is from the students who successfully complete this instruction that the best qualified are selected for the advanced course that leads to an officer’s commission.

Credit for the basic course can be obtained by successfully completing the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC 111</td>
<td>Introduction of Citizen/Soldier</td>
<td>1 sh</td>
</tr>
<tr>
<td>MSC 112</td>
<td>Introduction to U.S. Military Forces</td>
<td>1 sh</td>
</tr>
<tr>
<td>MSC 141, 142</td>
<td>Leadership Laboratory (1 sh/ea)</td>
<td>2 sh</td>
</tr>
<tr>
<td>MSC 211</td>
<td>Development of Professional Military Skills I</td>
<td>1 sh</td>
</tr>
<tr>
<td>MSC 212</td>
<td>Development of Professional Military Skills II</td>
<td>1 sh</td>
</tr>
<tr>
<td>MSC 241, 242</td>
<td>Leadership Laboratory (1 sh/ea)</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

**TOTAL** 8 sh

Successful completion of MSC 251 or prior service in the Armed Forces can be used to obtain appropriate credit for the basic course.

**Advanced Course**

Students who receive appropriate credit for the basic course and meet eligibility standards are admitted to the advanced course on a best-qualified basis. Successful completion of the advanced course qualifies the student for a commission as a Second Lieutenant in one of the branches of the United States Army, Army Reserves or Army National Guard. The following courses are required for completion of the advanced course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSC 311</td>
<td>Leadership Training</td>
<td>2 sh</td>
</tr>
<tr>
<td>MSC 312</td>
<td>Introduction to Military Team Theory</td>
<td>2 sh</td>
</tr>
<tr>
<td>MSC 341, 342</td>
<td>Leadership Laboratory (1 sh/ea)</td>
<td>2 sh</td>
</tr>
<tr>
<td>MSC 351</td>
<td>Army ROTC Advanced Camp</td>
<td>4 sh</td>
</tr>
<tr>
<td>MSC 411</td>
<td>Seminars in Leadership and Professional Development</td>
<td>2 sh</td>
</tr>
<tr>
<td>MSC 412</td>
<td>Leadership, Law and Ethics</td>
<td>2 sh</td>
</tr>
<tr>
<td>MSC 441, 442</td>
<td>Leadership Laboratory (1 sh/ea)</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

**TOTAL** 16 sh

**Two-year Program**

This program is designed for junior college students or sophomores at four-year institutions who have not taken ROTC. A basic six-week summer training period after the sophomore year takes the place of the basic course required of students in the traditional four-year program. When a student with two years of college has successfully completed the basic summer training, he/she is eligible for the advanced ROTC course in his/her junior and senior years. The advanced course, which leads to an officer commission, is the same for students in either the two-year program or the four-year program.
MSC 111. INTRODUCTION OF CITIZEN/SOLDIER  
Introduction to U.S. military forces provides an introduction to and fosters the early development of leadership and soldier skills. Topics of training include leadership, drill and ceremonies, first aid and general military subjects.

MSC 112. INTRODUCTION TO U.S. MILITARY FORCES  
Hands-on, practical training is the focus of the Leadership Laboratory. Students become proficient in basic military skills, drill and ceremonies, first aid and conducting inspections. Attention is also given to individual arms and marksmanship techniques.

MSC 141, 142. LEADERSHIP LABORATORY (each semester)  
This course continues the development of cadet leadership and critical skills. Training is basic in scope and includes leadership, written and oral communications, physical fitness and general military subjects.

MSC 211. DEVELOPMENT OF PROFESSIONAL MILITARY SKILLS I  
Instruction in the second part of this sequence expands the students’ frame of reference to include an understanding of roles and responsibilities and fosters internalization of the Professional Army Ethic. Training is basic in scope and includes written and oral communication, military skills, professional knowledge subjects and physical fitness.

MSC 241, 242. LEADERSHIP LABORATORY (each semester)  
This Leadership Laboratory serves as a learning laboratory for hands-on practical experiences. Training includes instruction on operations, tactics, land navigation, first aid and general military subjects. Key course components emphasize the functions, duties and responsibilities of junior noncommissioned officers. The primary focus is the continued development of leadership potential through practical experience. The APFT is given to assess the state of physical development.

MSC 251. ARMY ROTC BASIC CAMP  
Basic Camp is six weeks of training at Fort Knox, Ky consisting of Army history, role and mission, map reading/land navigation, rifle marksmanship, basic leadership techniques, physical training/marches, individual and unit tactics and communications. This course can be taken by rising juniors to substitute for MSC 111, 112, 141, 142, 211, 212, 241 and 242. Prerequisites: Qualification tests.

MSC 311. LEADERSHIP TRAINING  
Designed to prepare cadets for the full range of responsibilities associated with Advanced Camp, Leadership Training refines the leader development process. Instruction is supplementary in scope and includes leadership, written and oral communications, operations, tactics and general military subjects.

MSC 312. INTRODUCTION TO MILITARY TEAM THEORY  
This course emphasizes the development of intermediate level cadet leader skills in preparation for advanced camp. Training is supplementary in scope and includes leadership, written and oral communications, operations, tactics, land navigation, weapons and general military subjects.

MSC 341, 342. LEADERSHIP LABORATORY (each semester)  
In this learning laboratory for hands-on practical experiences, the focus is on soldier team development at a squad/patrol level; supplementary training includes land navigation and weapons. Emphasis is also placed on the development of intermediate leader skills in a field environment. The APFT is administered to assess physical development.

MSC 351. ARMY ROTC ADVANCED CAMP  
Normally taken the summer following the junior year, the six-week Advanced Camp training/internship is conducted at designated U.S. Army installations. Prerequisite: MSC 312.

MSC 411. SEMINARS IN LEADERSHIP AND PROFESSIONAL DEVELOPMENT  
Cadets develop leadership, technical and tactical skills through performance as a trainer/supervisor. Supplementary training includes leadership, written and oral communications,
operations and tactics, physical fitness, training management and general military subjects. The focus gradually shifts to familiarize the student with future assignments as an officer.

**MSC 412. LEADERSHIP, LAW AND ETHICS**

This course continues the development of critical leadership skills. Training includes leadership, ethics, professionalism, law, written and oral communications, operations, tactics and general military subjects. The course culminates with instruction on making the transition to the Officer Corps.

**MSC 441, 442. LEADERSHIP LABORATORY (each semester)**

Hands-on practical experiences reinforce cadet training, which is designed to solidify the commitment to officership, reinforce individual competencies and afford maximum practical officer leadership experiences. The laboratory emphasizes the functions, duties and responsibilities of junior Army officers with special attention directed to developing advanced leadership skills through active participation in planning and conducting military drills, ceremonies and field training.

**MSC 451. AIRBORNE TRAINING**

Three weeks of intensive airborne training includes physical conditioning, landing techniques, parachute safety, simulated jumps, procedures in and around aircraft and five combat jumps from an Air Force aircraft at 1,250 feet. Selection for this opportunity is highly competitive. Only a few cadets nationwide are accepted.

**Multimedia Authoring**

**Coordinator: Senior Lecturer Kleckner**

As more and more information is disseminated electronically for personal computers and via the Internet, the artistic design and narrative quality of this digital content become increasingly important. The development of effective multimedia content can be especially challenging in traditionally human-centric disciplines such as training, education, entertainment and advertising. The Multimedia Authoring minor provides an interdisciplinary approach to the development of successful and persuasive digital content for all disciplines. These skills are beneficial for graduates in a variety of fields but are especially relevant in publishing (both new electronic media as well as traditional media), business marketing and business consulting.

This minor includes core courses from a variety of majors intended to integrate the study of digital design and writing with a solid technical foundation. The final multimedia authoring project course provides an opportunity for students to apply the skills learned in writing, interface design, digital art and Web development to a significant project that will include both a research and application component. The project will address a multimedia challenge in the student’s field of major study or related field of interest.

A minor in Multimedia Authoring requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 212</td>
<td>Multimedia Rhetorics</td>
<td>4 sh</td>
</tr>
<tr>
<td>ISC 310</td>
<td>Human Computer Interaction</td>
<td>4 sh</td>
</tr>
<tr>
<td>MMA 460</td>
<td>Multimedia Authoring Studio</td>
<td>4 sh</td>
</tr>
<tr>
<td>ART 260</td>
<td>Introduction to Digital Art</td>
<td></td>
</tr>
<tr>
<td>ART 360</td>
<td>Static Imaging</td>
<td></td>
</tr>
<tr>
<td>ART 361</td>
<td>Web Art</td>
<td></td>
</tr>
<tr>
<td>ART 362</td>
<td>Kinetic Imaging</td>
<td></td>
</tr>
<tr>
<td>BUS 304</td>
<td>Introduction to Marketing</td>
<td></td>
</tr>
</tbody>
</table>

(No credit for both BUS 304 and MKT 311)
MMA 460. MULTIMEDIA AUTHORING STUDIO  
4 sh
Students will develop an interactive multimedia project which incorporates text with computer graphics, video and audio. This project will address a multimedia challenge in the student’s major field of study or related field of interest. Students will be involved in developing their final products through each stage of the full project lifecycle, including research, planning, design, implementation and maintenance/ reflection. Prerequisites: ENG 212, ISC 310 and eight hours of MMA electives.

Music
Chair: Assistant Professor Buckmaster
Professors: Erdmann, Fischer Faw
Associate Professors: Coleman, Futrell, Hogan, Metzger
Assistant Professors: Knight, Shimron
Instructor: LaRocco
Professor Emeritus: Artley, Bragg
Senior Lecturer: Butler-Cornelius
Lecturer: Sawyer
Artist-in-Residence: Metzger

The Department of Music offers four music majors. The Bachelor of Science in Music Education is for those students who wish to teach in elementary, middle or high school music programs. The program is a collaborative effort between the Department of Music and the Department of Education. The Bachelor of Arts in Music Performance is for those students who wish to emphasize the study of instrumental or vocal music. Students in this program will be expected to become accomplished performers while developing a solid base in theory and history. The B.S. in Music Technology is for students who wish to pursue a career in the music industry or academia in the field of music technology and synthesis. The A.B. in Music is primarily for those students who do not wish to concentrate on a performance area or who wish to double major in another liberal arts department. Students in this program will have a continuing background in musical performance through participation in ensembles and private lessons.

An audition is required for acceptance into this program.
### A major in Music Education requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 111</td>
<td>The Materials of Music I</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 112</td>
<td>The Materials of Music II</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 113</td>
<td>Aural Skills I</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 114</td>
<td>Aural Skills II</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 211</td>
<td>The Materials of Music III</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 212</td>
<td>The Materials of Music IV</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Aural Skills III</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 214</td>
<td>Aural Skills IV</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 250</td>
<td>Music Education Technology</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 251</td>
<td>Introduction to Music Education</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 313</td>
<td>Form and Analysis</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 315</td>
<td>The Music of Ancient Times Through Baroque</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 316</td>
<td>Classic and Romantic Music</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 360</td>
<td>Choral Methods and Literature</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 361</td>
<td>Instrumental Methods I</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 362</td>
<td>Instrumental Methods II</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 366</td>
<td>Conducting</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 411</td>
<td>Instrumental and Choral Arranging</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 413</td>
<td>20th Century Techniques</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 461</td>
<td>Music Education K-12 Methods</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

In addition, each Music Education major must complete the following:

(a) full applied music lessons each semester of residency for a minimum of 10 sh (at least one semester at the 300-level)  
(b) degree recital accepted by music faculty (MUS 030)  
(c) ensemble from MUS 101, 102, 103, 105 and 109  
(All majors must complete one of these ensembles outside of major instrument/voice)  
(d) Keyboard proficiency  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 010</td>
<td>Departmental Recital each semester of residency as a Music Education major</td>
<td>64 sh</td>
</tr>
</tbody>
</table>

In addition, vocal majors must take MUS 258 Diction for Singers I and MUS 259 Diction for Singers II.

The music education student must also complete the required professional education courses and observe the requirements for the teacher education program as outlined under Education.

An audition is required for acceptance into this program.
The major in Music Performance requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 111</td>
<td>The Materials of Music I</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 112</td>
<td>The Materials of Music II</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 113</td>
<td>Aural Skills I</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 114</td>
<td>Aural Skills II</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 211</td>
<td>The Materials of Music III</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 212</td>
<td>The Materials of Music IV</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Aural Skills III</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 214</td>
<td>Aural Skills IV</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 313</td>
<td>Form and Analysis</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 315</td>
<td>The Music of Ancient Times Through Baroque</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 316</td>
<td>Classic and Romantic Music</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 413</td>
<td>20th Century Techniques</td>
<td>2 sh</td>
</tr>
<tr>
<td>MUS 495</td>
<td>Senior Seminar</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

Choose one of the following: 2 sh
- MUS 366 Conducting
- MUS 367 Vocal Pedagogy
- MUS 368/369 Methods and Materials of Piano Practicum and Pedagogy
- MUS 411 Instrumental and Choral Arranging

In addition, each Music Performance major must complete the following:
- (a) applied music lessons, at least one semester at the 400 level 14 sh
- (b) half solo recital at the 300 level
- (c) full solo recital at the 400 level
- (d) ensemble from MUS 101, 102, 103, 105 and 109 8 sh
  - Vocal majors must choose between MUS 102 and 105
  - Instrumental majors must choose between MUS 101, 103 or 109
  - Piano majors may choose between MUS 101, 102, 103, 105 or 109
- (e) keyboard proficiency

MUS 010 Departmental Recital each semester of residency as a Music Performance major

**TOTAL** 54 sh

In addition, vocal majors must take MUS 258 Diction for Singers I and MUS 259 Diction for Singers II.

An audition and/or portfolio is required for acceptance into this program.

The major in Music Technology requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 102</td>
<td>University Chorale</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 111</td>
<td>The Materials of Music I</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 112</td>
<td>The Materials of Music II</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 113</td>
<td>Aural Skills I</td>
<td>1 sh</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credit Units</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>MUS 114</td>
<td>Aural Skills II (1 sh)</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 211</td>
<td>The Materials of Music III (3 sh)</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Aural Skills III (1 sh)</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 217</td>
<td>World Music</td>
<td></td>
</tr>
<tr>
<td>MUS 316</td>
<td>Classic and Romantic Music</td>
<td></td>
</tr>
<tr>
<td>MUS 317</td>
<td>Music History for the Liberal Arts Student</td>
<td></td>
</tr>
<tr>
<td>MUS 318</td>
<td>History of Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 319</td>
<td>History of American Music</td>
<td></td>
</tr>
</tbody>
</table>

Choose one course from the following: (4 sh)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 217</td>
<td>World Music</td>
</tr>
<tr>
<td>MUS 316</td>
<td>Classic and Romantic Music</td>
</tr>
<tr>
<td>MUS 317</td>
<td>Music History for the Liberal Arts Student</td>
</tr>
<tr>
<td>MUS 318</td>
<td>History of Jazz</td>
</tr>
<tr>
<td>MUS 319</td>
<td>History of American Music</td>
</tr>
</tbody>
</table>

In addition, each Music Technology major must complete:

(a) two semesters of applied music lessons (4 sh) 4 sh
(b) two Music Department ensembles 2 sh

MUS 010 Departmental Recital each semester of residency as a Music Technology major

**Music Core Courses total** 23 sh

**Technology Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 105</td>
<td>The Physics of Sound (4 sh)</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 210</td>
<td>Introduction to Music Technology (4 sh)</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 215</td>
<td>Critical Listening (1 sh)</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 305</td>
<td>Studio Techniques I (4 sh)</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 309</td>
<td>Survey of Music Business (4 sh)</td>
<td></td>
</tr>
<tr>
<td>MUS 356</td>
<td>Music Postproduction (4 sh)</td>
<td></td>
</tr>
<tr>
<td>MUS 495</td>
<td>Music Technology Senior Seminar (2 sh)</td>
<td></td>
</tr>
</tbody>
</table>

**Technology Core Courses total** 23 sh

Choose a **Concentration** (either Recording Arts or Music Production)

**Recording Arts**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 310</td>
<td>Live Sound Production and Recording</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 405</td>
<td>Studio Techniques II</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 481</td>
<td>Music Technology Internship</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following: 4 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 114</td>
<td>Time Arts</td>
</tr>
<tr>
<td>ART 260</td>
<td>Introduction to Digital Arts</td>
</tr>
<tr>
<td>COM 326</td>
<td>Cinema Production*</td>
</tr>
<tr>
<td>COM 365</td>
<td>Editing the Moving Image</td>
</tr>
</tbody>
</table>

**Recording Arts Concentration total** 16 sh

*prerequisite required

**Music Production**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 212</td>
<td>The Materials of Music IV</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 214</td>
<td>Aural Skills IV</td>
<td>1 sh</td>
</tr>
</tbody>
</table>

*prerequisite required
MUS 216 Introduction to Composition and Orchestration 4 sh
MUS 355 The Art of Songcraft 4 sh

In addition, each Music Technology major with a Music Production concentration must complete the following:

(a) Four additional semester hours from applied composition lessons, applied Instrumental or voice lessons, Music Department ensembles 4 sh

(b) Keyboard proficiency

Music Production Concentration total 16 sh

MUSIC TECHNOLOGY TOTAL 62 sh

An audition is required for acceptance into this program.

A major in Music requires the following courses:

MUS 111 The Materials of Music I 3 sh
MUS 112 The Materials of Music II 3 sh
MUS 113 Aural Skills I 1 sh
MUS 114 Aural Skills II 1 sh
MUS 211 The Materials of Music III 3 sh
MUS 212 The Materials of Music IV 3 sh
MUS 213 Aural Skills III 1 sh
MUS 214 Aural Skills IV 1 sh
MUS 154 Piano Class I 1 sh
MUS 155 Piano Class II 1 sh
MUS 315 The Music of Ancient Times Through Baroque 4 sh
MUS 316 Classic and Romantic Music 4 sh
MUS 495 Senior Seminar 2 sh

In addition, each music major must complete the following:

(a) eight semester hours MUS electives at 300-400 level 8 sh
(b) six semesters of applied music lessons 6-10 sh
(c) ensembles 4 sh

MUS 010 Departmental Recital each semester of residency as a Music major (A.B.)

TOTAL 46-50 sh

A minor in Music requires 20 semester hours. Students lacking functional knowledge of the keyboard must accumulate two semester hours in piano either prior to or simultaneously with their enrollment in MUS 111 and 112.

The following courses are required:

MUS 111 The Materials of Music I 3 sh
MUS 112 The Materials of Music II 3 sh
Choose of one of the following:  
MUS 217 World Music  
MUS 315 The Music of Ancient Times Through Baroque  
MUS 316 Classic and Romantic Music  
MUS 317 Music History for the Liberal Arts Student  
MUS 319 History of American Music  
MUS 351/352/353 Methods and Materials of Piano Practicum and Pedagogy

In addition, each Music minor must complete the following:  
(a) one medium of applied music instruction  6 sh  
(b) ensemble from MUS 101, 102, 103, 105 and 109  4 sh

**TOTAL**  20 sh

*A minor in Jazz Studies requires 24 semester hours.*

The following courses are required:  
MUS 111 The Materials of Music I  3 sh  
MUS 112 The Materials of Music II  3 sh  
MUS 113 Aural Skills I  1 sh  
MUS 114 Aural Skills II  1 sh  
MUS 254 Jazz Improvisation I  1 sh  
MUS 255 Jazz Improvisation II  1 sh  
MUS 256 Jazz Harmony  2 sh  
MUS 318 History of Jazz  4 sh

In addition, each jazz studies minor must complete the following:  
(a) one medium of applied music instruction  4 sh  
(b) ensemble from MUS 104, 107 or 219  4 sh

**TOTAL**  24 sh

*A minor in Music Technology requires 23 semester hours.*

The following courses are required:  
MUS 111 The Materials of Music I  3 sh  
MUS 112 The Materials of Music II  3 sh  
MUS 113 Aural Skills I  1 sh  
MUS 114 Aural Skills II  1 sh  
MUS 210 Introduction to Music Technology  4 sh  
MUS 215 Critical Listening  1 sh  
MUS 305 Studio Techniques I  4 sh  
MUS 310 Live Sound Production and Recording  4 sh

Two Music Department ensembles  2 sh

**TOTAL**  23 sh
Applied Music: Individual and Group Instruction

Music majors/minors register for the appropriate level and area of applied music study as determined by audition and consultation with their advisor or the department chair. With permission of the department, enrolled students may register for any course in applied music at the 100 level. Weekly 30-minute lesson: one semester hour credit (Section A). Weekly 60-minute lesson: two semester hours credit (Section B). A special fee is required.

Applied Music: Individual Instruction

Piano: 120, 220, 320, 420  
Organ: 121, 221, 321, 421  
Voice: 122, 222, 322, 422  
Trumpet: 123, 223, 323, 423  
French Horn: 124, 224, 324, 424  
Trombone: 125, 225, 325, 425  
Baritone (Euphonium): 126, 226, 326, 426  
Tuba: 127, 227, 327, 427  
Flute: 128, 228, 328, 428  
Oboe: 129, 229, 329, 429  
Clarinet: 130, 230, 330, 430  
Bassoon: 131, 231, 331, 431  
Violin: 133, 233, 333, 433  
Viola: 134, 234, 334, 434  
Cello: 135, 235, 335, 435  
String Bass: 136, 236, 336, 436  
Guitar: 137, 237, 337, 437  
Electric Bass: 139, 239, 339, 439  
Harp: 140, 240, 340, 440  
Jazz Techniques: 141, 241, 341, 441

Applied Music: Group Instruction

MUS 100. BEGINNING PIANO CLASS  
Beginning group piano study open to all majors. Exploration of fundamental keyboard skills and appropriate musical topics will be studied. Offered fall and spring.

MUS 152,153. VOICE CLASS I and II  
Group voice instruction ranges from beginning to intermediate.

MUS 154. PIANO CLASS I  
Group piano instruction focused on the acquisition of basic skills required to demonstrate keyboard proficiency for the music major. This course is the first in a sequence of four piano classes. Open to music majors only or by permission of instructor.

MUS 155. PIANO CLASS II  
Group piano instruction focused on the acquisition of developing skills required to demonstrate keyboard proficiency for the music major. This course is the second in a sequence of four piano classes. Prerequisite: MUS 154 or by permission of instructor. Offered spring.

MUS 156. PIANO CLASS III  
Group piano instruction focused on the acquisition of intermediate skills required to demonstrate keyboard proficiency for the music major. This course is the third in a sequence of four piano classes. Prerequisite: MUS 155 or by permission of instructor. Offered fall.

MUS 157. PIANO CLASS IV  
Group piano instruction focused on the acquisition of advanced skills required to demonstrate keyboard proficiency for the music major. This course is the fourth in a sequence of four piano classes. Prerequisite: MUS 156 or by permission of instructor. Offered spring.

MUS 158. GUITAR CLASS  
Beginners develop musical skills with the guitar — simple chords, melodies and songs — using elements of classical guitar techniques as a foundation.
MUS 258. DICTION FOR SINGERS I
Students learn the International Phonetic Alphabet as it applies to singing English, Latin, Italian and German vocal literature. Offered fall.

MUS 259. DICTION FOR SINGERS II
Students continue to learn the International Phonetic Alphabet as it applies to singing French literature. Offered spring.

Music Materials, Structures and Techniques

MUS 111, 112. THE MATERIALS OF MUSIC I and II
A study of the fundamentals of music, diatonic harmony and elementary voice-leading and part-writing includes an introduction to harmonic-melodic form, analysis and synthesis of harmonic practices through secondary seventh chords. Prerequisite for MUS 112: MUS 111. Offered fall and spring.

MUS 113, 114. AURAL SKILLS I and II
Study emphasizes melodic-harmonic-rhythmic dictation, sight singing and keyboard study. Prerequisite for MUS 114: MUS 113. Offered fall and spring.

MUS 211, 212. THE MATERIALS OF MUSIC III and IV
A continuation of MUS 112 on an advanced level includes complex chromatic harmonies and emphasizes analysis and composition of standard musical forms. Prerequisite: MUS 112. Prerequisite for 212: MUS 211. Offered fall and spring.

MUS 213, 214. AURAL SKILLS III and IV
These courses provide advanced study in melodic-harmonic-rhythmic dictation, sight singing and keyboard study. Prerequisite: MUS 114. Prerequisite for MUS 214: MUS 213. Offered fall and spring.

MUS 216. INTRODUCTION TO COMPOSITION AND ORCHESTRATION
This course builds on the basics of music theory to explore the fundamentals of music composition utilizing the techniques of contemporary art music and modern orchestration. Topics include innovations in 20th-century harmony, melody, texture, and form; motivic and thematic construction and development; proper notation of musical ideas and preparation of performance materials; and the development of personal style. Writing intensive (music composition) and project based. Prerequisite: MUS 211.

MUS 254, 255. JAZZ IMPROVISATION I and II
Instrumentalists or vocalists develop skills in improvisational jazz performance techniques.

MUS 256. JAZZ HARMONY
This course is a study of jazz harmonic vocabulary and its application to the jazz repertoire. Seventh chords, chord symbols, voicings, guide tones, color tones, voice leading and reharmonizations are examined. All students play the instrument of their choice and piano. Prerequisite: MUS 255.

MUS 311. COUNTERPOINT
Analysis and composition of period works are part of the study of counterpoint from the 16th to 20th centuries with applications to various vocal and instrumental writings. Prerequisite: MUS 212.

MUS 313. FORM AND ANALYSIS
This course acquaints the student with the standard forms of tonal music through the aural and visual study of micro and macro forms of representative works. Prerequisite: MUS 212. Offered fall of alternate years.

MUS 350. OPERA WORKSHOP
This course offers students performance opportunities in operatic literature. Students will musically and dramatically prepare operatic excerpts or one-act operas appropriate for undergraduate singers. A public performance is the culmination of class rehearsals. An audition is required for this class. Offered spring of alternate years.
MUS 355. **THE ART OF SONGCRAFT**  4 sh
This course focuses on the art of songwriting in commercial and popular styles, including the musical elements of harmony, melody, arrangement, hook, groove and form, as well as the study of lyric writing. The course also covers the use of various tools used to create lead sheets, sheet music, and make demo recordings. Writing intensive (music composition and lyrics) and project based. Prerequisite: MUS 112. Offered fall.

MUS 411. **INSTRUMENTAL AND CHORAL ARRANGING**  2 sh
Students explore technical possibilities and limitations of individual instruments and voices. Study also covers arranging and transcribing for various combinations of instruments and voices. Prerequisite: MUS 112.

MUS 413. **20th CENTURY TECHNIQUES**  2 sh
This course is a study of the changes which have taken place in music of the 20th century. Techniques to be studied include atonality, polytonality, serialism, integral serialism, dodecaphony and electronic music. Prerequisite: MUS 112. Offered spring of alternate years.

MUS 265-465. **COMPOSITION**  1 sh/ea
Students write compositions integrating techniques of studied repertoire as they explore musical composition in weekly individual meetings with an instructor. Prerequisite: MUS 112 or permission of instructor.

**Literature and History**

MUS 217. **WORLD MUSIC**  4 sh
Text readings, listening, research, writing and class presentation are part of an introduction to the music of Asia, Eastern Europe, Africa, and Central and South America. Students gain increased awareness of the art and music of other cultures, make connections with their own art and folk traditions and search for shared meanings of all musical licensure.

MUS 315. **THE MUSIC OF ANCIENT TIMES THROUGH BAROQUE**  4 sh
This survey of music through the Baroque period emphasizes Renaissance and Baroque counterpoint through reading, listening, analysis, research and writing. Prerequisite: MUS 112.

MUS 316. **CLASSIC AND ROMANTIC MUSIC**  4 sh
By reading, listening, research and writing, students explore the relationship of 18th- and 19th-century music to the world, as the expression of artists responding to political, social and philosophical environments. The course also emphasizes the progressive study of formal analysis, from smaller forms to the large single and multi-movement genres of the period. Prerequisite: MUS 112.

MUS 317. **MUSIC HISTORY FOR THE LIBERAL ARTS STUDENT**  4 sh
Nonmusic majors gain improved skills to enhance musical enjoyment, basic knowledge of music styles and events, and focus on placing this knowledge in the context of world events and trends. Study covers selected personalities and works in music through substantial reading, listening, research and writing.

MUS 318. **HISTORY OF JAZZ**  4 sh
This overview of jazz music from about 1900 to the present is designed for the liberal arts major. Topics include jazz styles, individual musicians and the development and progress of jazz through the 20th century.

MUS 319. **HISTORY OF AMERICAN MUSIC**  4 sh
Study of American music from 1620 to the present focuses on elements of various musical cultures (e.g., Western and Eastern Europe, Africa, Latin America) that have influenced the American style of music.
MUS 343. AFRICAN-AMERICAN COMPOSERS 4 sh
This course looks at the lives of African-American composers, their music and the social structure within which they lived. The course allows students to investigate the artistic impact of American historical events and trends such as Jim Crow laws, segregation and cabaret cards.

MUS 345. THE MUSIC OF MILES DAVIS 4 sh
Jazz musician, composer, innovator, arranger, trumpeter Miles Davis (1926–1991) is easily arguable as the most significant jazz musician who ever lived. This course will look in-depth at Davis’ music and how it reflected American culture in each of the decades of the last half of the 20th century.

MUS 469. WOMEN IN MUSIC 4 sh
This course will look at the lives and music of women musicians, composers and performers and the social structure within which they live and lived. The course will allow students to investigate the artistic impact of historical events and trends in not only America, but also the world, and how women in different eras were able to interact musically.

Music Education

The following technique courses are required for music majors seeking music teacher licensure.

MUS 030. DEGREE RECITAL 0 sh
This course is designed for music education students who are enrolled in an applied lesson on their primary instrument at the 300 or 400 level in order to perform a degree recital within the semester of the concurrent enrollment. The course, upon its successful completion, will verify that the student has performed a recital that is demonstrative of the candidate’s ability to synthesize and apply in-depth understanding of content knowledge, musical skill, and technical skill to produce a high-quality performance. Corequisite: Applied music study at the 300 or 400 level.

MUS 250. MUSIC EDUCATION TECHNOLOGY 3 sh
This course is designed for music students who are planning to teach in the public schools and provides an examination to the role of music technology in the 21st century music classroom. Opportunities are provided for students to develop basic skills in using music technology and in selecting and applying technology appropriately to enhance teacher productivity and student learning. Offered fall of alternate years. Prerequisite: MUS 112 or permission of the instructor.

MUS 251. INTRODUCTION TO MUSIC EDUCATION 2 sh
This course covers the historical, theoretical and philosophical foundations of music education. Special topics and other essential basic pedagogical knowledge within the field will also be addressed. Offered fall.

MUS 360. CHORAL METHODS AND LITERATURE 2 sh
This course explores the pedagogical methods required to teach large and small vocal ensembles in the public schools. In addition, the course will focus on the selection of practical literature for all levels of a choral curriculum. Special topics will also include the development and maintenance of a choral program. Offered spring. Prerequisite: MUS 251 or permission of instructor.

MUS 361. INSTRUMENTAL METHODS I 2 sh
Emphasizing percussion and string pedagogical methods, this course examines instruction and administration of band and orchestra programs utilizing a pragmatic teaching approach. Appropriate selection of instrumental ensemble literature is also studied. Offered fall. Prerequisite: MUS 251 or permission of instructor.
MUS 362. INSTRUMENTAL METHODS II 2 sh
Emphasizing woodwind and brass pedagogical methods, this course continues an examination of the instruction and administration of band and orchestra programs utilizing a pragmatic teaching approach. Appropriate selection of instrumental ensemble literature is also studied. Offered spring. Prerequisite: MUS 361 or permission of instructor.

MUS 366. CONDUCTING 2 sh
Students develop skill in baton and rehearsal techniques and interpretation in training and leading various ensembles of instruments and voices.

MUS 461. MUSIC EDUCATION K-12 METHODS 4 sh
A study of the methods and materials suitable for teaching at all levels covers the administration of band, orchestra and choral programs in the public schools with additional emphasis on marching band techniques. Prerequisite: MUS 251. Offered fall.

Music Technology

MUS 210. INTRODUCTION TO MUSIC TECHNOLOGY 4 sh
The course explores the effects of changing technology on music and provides an introduction to the basic elements, terminology and concepts of music technology. The course includes a survey of music software and hardware. Topics include computer-aided instruction, music notation, sequencing, basic MIDI, basic audio editing and synthesis.

MUS 215. CRITICAL LISTENING 1 sh
This course covers basic principles of physical acoustics, psychology of sound, aesthetics of sound with a critical listening study of music and sound. The course includes activities and exercises designed to develop the student’s ability to define and evaluate aesthetic elements of live and recorded music. Prerequisites: MUS 111 and 113.

MUS 305. STUDIO TECHNIQUES I 4 sh
This course builds on MUS 210 Introduction to Music Technology. The primary subject matter focuses on studio techniques concerning signal flow, gain structure, microphone selection and technique, tracking, editing, mixing and advanced digital audio workstation software concepts. Related topics covered include direct boxes, preamps, effects plug-ins, monitoring, amplifiers, cable types, audio engineering terminology, session workflow, and mastering. The course also includes a unit on live sound production and mobile recording. Prerequisite: MUS 210. Offered fall.

MUS 310. LIVE SOUND PRODUCTION AND RECORDING 4 sh
This course focuses on sound reinforcement for live musical performances and recording or broadcast of live musical events, both amplified and unamplified. Primary topics include mixing for Front of House, monitor, and recording or broadcast. Supporting topics include speakers, amplifiers, cabling, rigging, power, mic technique, wireless (RF), touring, stage craft, set up, and tear down. This course requires field work. Prerequisite: MUS 215.

MUS 356. MUSIC POSTPRODUCTION 4 sh
This course focuses on musical, aesthetic, and technical principles relating to the integration or synchronization of music with visual media such as motion pictures, television, video games, and multimedia. Topics covered include film scoring, music and sound for video games, surround sound, re-recording mixing, and mastering for various delivery formats. Project based. Prerequisites: MUS 305 or MUS 355 or permission of instructor. Offered fall.

MUS 405. STUDIO TECHNIQUES II 4 sh
This course is a continuation of MUS 305: Studio Techniques I, building on the knowledge and skills acquired in that course. The course focuses on topics such as advanced mixing techniques, fluency in music recording, editing, and mixing, use of specialized DAW plug-ins and outboard gear, recording session management and workflow, producing, and professional interaction with the musical talent. Individual and group work required in various
roles: as engineer, assistant, producer, and musician. Project based. Prerequisite: MUS 305. Offered fall.

MUS 481. MUSIC TECHNOLOGY INTERNSHIP 1-4 sh
Field application of music technology theories and practices in professional music production or music technology related fields. The student can propose two internships at two hours each or propose a single four hour internship. Study abroad opportunities may be considered with the internship. Prerequisite: Consent of music technology coordinator.

Ensembles

MUS 101. WIND ENSEMBLE 1 sh
Open to all students.

MUS 102. ELON CHORALE 1 sh
Open to all students.

MUS 103. ELON CHAMBER ORCHESTRA 1 sh
By audition only.

MUS 104. JAZZ ENSEMBLE 1 sh
By audition only.

MUS 105. ELON CAMERATA 1 sh
By audition only.

MUS 106. CHAMBER ENSEMBLE 1 sh
By audition only.

MUS 107. ÉLAN (vocal jazz ensemble) 1 sh
By audition only.

MUS 108. PERCUSSION ENSEMBLE 1 sh
By audition only.

MUS 109. ELON UNIVERSITY MARCHING BAND 1 sh
This ensemble will furnish halftime entertainment for football games and serve as a model for music education majors in the instruction and development of various styles of marching bands. Offered fall.

MUS 110. ELECTRIC ENSEMBLE 1 sh
By audition only.

MUS 219. JAZZ COMBO 1 sh
Students explore jazz literature for small groups of instruments to gain an understanding of individual roles in a small ensemble. This will include planning, graphing and constructing improvisations within various musical forms.

Other Offerings

MUS 309. SURVEY OF MUSIC BUSINESS 4 sh
This course focuses on business aspects of the music industry, covering topics including copyright, performance rights, business organization, management, contracts, riders, grants, taxation, music production, and freelancing. This course surveys various jobs within the industry such as teaching, promoting, performing, publishing, composing, booking, producing, managing, sales, and training. This course is writing intensive. Open to students in the third or fourth year of study.

MUS 351. METHODS AND MATERIALS OF PIANO PEDAGOGY I 3 sh
Students interested in teaching piano in a private studio explore group and individual instructional materials and methodology for beginning and early elementary students, suitable repertoire, basic keyboard musicianship and pupil psychology. Each student will teach a young piano student under faculty supervision. Corequisite: MUS 353.
MUS 352. METHODS AND MATERIALS OF PIANO PEDAGOGY II 3 sh
Students interested in teaching piano in a private studio explore group and individual instructional materials and methodology for intermediate, adult and transfer students, suitable repertoire, basic keyboard musicianship and the business of conducting a private piano studio. Each student will teach a piano student under faculty supervision. Corequisite: MUS 353.

MUS 353. PIANO PEDAGOGY PRACTICUM 1 sh
The practical application of methods and skills learned in MUS 351 and/or MUS 352. Prerequisite: MUS 351 or MUS 352.

MUS 367. VOCAL PEDAGOGY 2 sh
This upper-level course focuses on the scientific and psychological aspects of singing and how this knowledge is useful to the teacher of voice. It introduces basic anatomy and the physical processes of phonation along with psychological concepts that aid in the training and use of the singing voice. Physiological topics include resonance, breath support, tone production, vowels registration and flexibility. Other topics include pedagogical methods, vocal problems and vocal artistry. Prerequisite: one year of private voice at the MUS 122-B level. Offered fall of alternate years.

MUS 471. SEMINAR: SPECIAL TOPICS 1-4 sh
Small groups study under the guidance of a member of the staff.

MUS 491. INDEPENDENT STUDY 1-4 sh
MUS 495. SENIOR SEMINAR 2 sh
This capstone experience for music includes a comprehensive evaluation of the student’s previous education in the major field, a major project to demonstrate proficiency in the student’s major area of interest or emphasis and preparation of materials necessary for enrollment in graduate school or the profession.

Music Theatre
Chair, Department of Performing Arts: Professor Rubec
Professor: McNeela, Wellford
Associate Professors: Formato, Gang, Kearns, Otos, Sabo, Wahl, Webb
Assistant Professors: Beversluis, Bower, Smith
Instructor: Dollak
Adjuncts: Flannery, Hill, Johnson

The Department of Performing Arts offers a Bachelor of Fine Arts in Music Theatre, a degree geared toward the student who wishes to pursue a career in performance or graduate studies following graduation. Admission to the program requires an audition demonstrating initial talent.

Coursework within this major is designed to train students in the three essential skill areas for music theatre: music, acting and dance. Students take studio dance classes in ballet, jazz, modern and tap, studio voice lessons, music theory and a minimum of four semesters of acting. Further study includes the literature and history of music theatre.

Practical application of all aspects of study are expected through participation in department stage productions, concerts and recitals. Outreach to the professional world occurs throughout the course of study through participation in vocal, dance and theatre festivals, conventions, auditions and competitions. The final result is an artist prepared for entry to the world of professional performance.
A major in Music Theatre requires the following courses (audition required):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTE 301</td>
<td>History of Music Theatre</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTE 302</td>
<td>Music Theatre Literature</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTE 321</td>
<td>Performance in Music Theatre</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTE 495</td>
<td>Senior Seminar</td>
<td>4 sh</td>
</tr>
<tr>
<td>MUS 111</td>
<td>Materials of Music I</td>
<td>3 sh</td>
</tr>
<tr>
<td>MUS 113</td>
<td>Aural Skills I</td>
<td>1 sh</td>
</tr>
<tr>
<td>MUS 154</td>
<td>Piano Class</td>
<td>1 sh</td>
</tr>
<tr>
<td>THE 120</td>
<td>Acting I</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 220</td>
<td>Acting II</td>
<td>4 sh</td>
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<tr>
<td>THE 221</td>
<td>Acting III</td>
<td>4 sh</td>
</tr>
<tr>
<td>DAN 150</td>
<td>Dance for the Musical Stage I</td>
<td>1 sh</td>
</tr>
<tr>
<td>DAN 250</td>
<td>Dance for the Musical Stage II</td>
<td>1 sh</td>
</tr>
<tr>
<td>DAN 350</td>
<td>Dance for the Musical Stage III</td>
<td>1 sh</td>
</tr>
<tr>
<td>DAN 450</td>
<td>Dance for the Musical Stage IV</td>
<td>1 sh</td>
</tr>
</tbody>
</table>

In addition, each major must complete the following:

(a) six semesters of private voice at appropriate level 12 sh
(b) four semesters of studio technique courses in dance with a minimum of one credit in each of the following: ballet, jazz, modern and tap 6 sh
(c) electives selected from music theatre, theatre arts, dance or music 14 sh
(d) one semester hour of singing in an ensemble 1 sh

TOTAL 68 sh

MTE 301. HISTORY OF MUSIC THEATRE 4 sh
This course, open to all students, explores the origins and development of music theatre, its theatrical conventions and major elements from the mid-18th century to the present. Offered fall.

MTE 302. MUSIC THEATRE LITERATURE 4 sh
The purpose of this course is to expose the student to the staples of the music theatre literature, to develop a critical sensitivity to the medium and to enable analysis of music, plots, characters and situations in contemporary music theatre. Prerequisites: MUS 111, 113. Offered spring.

MTE 321. PERFORMANCE IN MUSIC THEATRE 4 sh
This performance-oriented course provides a systematic approach to achieving a high level of singing-acting skills. Students also receive training and practice in selecting, preparing and presenting audition material. Prerequisites: MUS 122 B and THE 120. Offered spring.

MTE 322. MUSIC THEATRE AND OPERA SCENE STUDY 4 sh
This performance-oriented course integrates music and theatre performance skills through the selection, development and presentation of partnered scenes from music theatre and opera repertoire. Prerequisites: Two semesters of MUS 122 B or permission of instructor.

MTE 495. SENIOR SEMINAR 4 sh
This capstone experience for senior majors centers on a practical project which demonstrates proficiency in performance skills and preparation for graduate study or entry into the profession. Prerequisite: Senior majors only. Course is two semesters in length. Students must take both semesters. Offered fall and spring.
Neuroscience

Coordinator: Associate Professor E. Hall

Neuroscience is an interdisciplinary field of study which examines the nervous system and advances the understanding of human thought, emotion and behavior. Objectives of neuroscientists include: describing the human brain and how it functions normally, determining how the nervous system develops, matures and maintains itself throughout the lifespan, and finding ways to prevent, cure or treat symptoms of many debilitating neurological, psychiatric and developmental disorders. Neuroscience may integrate such disciplines as biology, chemistry, psychology, computer science, mathematics, statistics, exercise science and philosophy. This minor will help provide students with the fundamental knowledge and training needed to pursue careers and post-graduate studies in fields related to cognitive science, behavioral medicine, human development and aging, health and disease, rehabilitation, biomedical research, human-machine interactions and many other emerging disciplines. A minimum of 24 semester hours is required.

A minor in Neuroscience requires the following:

Select one of the following courses: 4 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111/113</td>
<td>Introductory Cell Biology and Lab</td>
</tr>
<tr>
<td>BIO 162</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>PSY 243</td>
<td>Behavioral Neuroscience</td>
</tr>
<tr>
<td>NEU 495</td>
<td>Seminar in Neuroscience</td>
</tr>
</tbody>
</table>

Twelve semester hours selected from the following courses and/or other courses as approved by the program coordinator 12 sh

Electives must be 200 level or higher and must come from at least two different disciplines. Up to four independent research credits (499) can be counted toward the accumulation of the 12 credit hours but must be approved by the program coordinator.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 245/246</td>
<td>Principles of Genetics w/ Lab</td>
</tr>
<tr>
<td>BIO 318</td>
<td>Comparative Vertebrate Structure and Function</td>
</tr>
<tr>
<td>BIO 331</td>
<td>The Biology of Animal Behavior</td>
</tr>
<tr>
<td>BIO 422</td>
<td>Molecular and Cellular Biology</td>
</tr>
<tr>
<td>CHM 211</td>
<td>Organic Chemistry I w/ Lab</td>
</tr>
<tr>
<td>CHM 351</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>CHM 473</td>
<td>Medicinal Chemistry</td>
</tr>
<tr>
<td>CSC 410</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>ESS 440</td>
<td>Exercise and the Cell</td>
</tr>
<tr>
<td>ESS 443</td>
<td>Exercise Psychophysiology</td>
</tr>
<tr>
<td>PSY 242</td>
<td>Cognitive Psychology</td>
</tr>
<tr>
<td>PSY 310</td>
<td>Memory and Memory Disorders</td>
</tr>
<tr>
<td>PSY 345</td>
<td>Psychology of Learning</td>
</tr>
<tr>
<td>PSY 350</td>
<td>Principles of Drug Action</td>
</tr>
<tr>
<td>PSY 351</td>
<td>Neuroplasticity</td>
</tr>
<tr>
<td>PSY 352</td>
<td>Criminal Biopsychology</td>
</tr>
<tr>
<td>PSY 353-54</td>
<td>Special Topics in Behavioral Neuroscience</td>
</tr>
<tr>
<td>PSY 355</td>
<td>Sensation and Perception</td>
</tr>
</tbody>
</table>
**NEU 495. SEMINAR IN NEUROSCIENCE**

This course is designed to provide a detailed working knowledge of a variety of topics related to current issues in neuroscience. Discussion and analysis of topics will focus on structural and functional relationships of the brain and body as well as integrating perspectives from each student’s major. At the culmination of this course, students should have an understanding of topics in neuroscience and be able to apply fundamental concepts to their professional path. Prerequisite: PSY 243. Offered spring semester.

**Non-Violence Studies**

**Coordinator:** Assistant Professor Swimelar

In seeking to understand and find solutions to violence and social injustice, the Non-Violence Studies program explores the theory and strategies of non-violent social change. The minor considers violence in its many forms, including poverty, war and physical abuse, and in its many sources — individual, institutional, structural and cultural.

Non-violence studies is interdisciplinary; students are encouraged to integrate the methods and essential questions of different fields as they study violence and social injustice.

A minimum of 20 semester hours are required, including the four-hour capstone course. NVS 171 and 172, as well as an internship, are recommended.

**A minor in Non-Violence Studies requires the following courses:**

NVS 461-469 capstone course  
Sixteen semester hours selected from the following courses or other approved newly offered courses from at least two different departments.  

The following courses are regularly offered and listed by title in the catalog:

- HST 365 Social Movements in Post Civil War America
- HUS 311 Poverty and Social Welfare Policy
- HUS 349 Violence in Families
- PHL 212 Ethical Practice
- POL 141 International Relations
- POL 304 Theorists of Non-Violence
- POL 345 International Terrorism
- POL 348 International Human Rights
- POL 367 Politics of Africa
- POL 368 Latin American Politics
- PSY 357 Criminal Behavior
- REL 201 Buddhist Traditions
- REL 343 Women, Violence and Resistance
- REL 344 Christianity and Social Justice
- REL 348 Environmental Ethics
- SOC 241 Social Issues and Problems
- SOC 245 Non-Violence of the Brave: From Gandhi to King
SOC 341 Ethnic and Race Relations

The following special topics courses are offered at various times, although not listed by title in the catalog:

ENG 110 Writing about Poverty
ENG 337 Asian Literature of Social Change
ENG 372 Literature of Non-Violence
GST 206 Studies in South Africa
GST/PHL 330 Economic Justice
GST 341 Alternatives to Trading Violence in Global Society
GST/HSS 374 Social Reformers in the Labor Movement
GST 416 Wealth and Poverty
HST 133 Civil Rights Movement
HST 463 Local Civil Rights History
NVS 171 Introduction to Mediation
NVS 172 Collaborative Conflict Resolution Skills
REL 464 History of Christian Non-Violence

TOTAL 20 sh

NVS 381. INTERNSHIP IN NON-VIOLENCE STUDIES 1-4 sh

Research, service and occupational internships focusing on issues relating to violence and non-violence. Prerequisites: Two courses in non-violence studies and permission of the coordinator.

NVS 461-69. SEMINARS ON NON-VIOLENCE 4 sh

These seminars combine two or more interdisciplinary approaches to the problem of violence. Each will include exploration of non-violent approaches to conflict situations. Prerequisites: Two courses in non-violence studies.

Periclean Scholars

Director: Professor Arcaro

Periclean Scholars are part of Project Pericles, a national project dedicated to increasing civic engagement and social responsibility. They are dedicated to promoting awareness of global issues and to helping provide solutions to the problems surrounding these issues in culturally sensitive and sustainable ways. Students apply to become Periclean Scholars in the second semester of their first year. Each class of 33 students chooses an issue to address during their sophomore year and then spends the next two years engaged in activities that integrate academic reading, research and writing with service and outcome-oriented experiential learning activities. All Periclean Scholars classes operate as seminars, with heavy emphasis on student ownership and leadership in most aspects of the class. Students from all majors are encouraged to apply. Periclean Scholars are required to take all of the following classes.

GST 225. PERICLEAN SCHOLARS 4 sh

In this foundational course students develop a mission statement for the class and research in depth the issues and topics related to that mission. Emphasis is placed on becoming deeply familiar with the multiplicity of factors that surround the group’s chosen issue and developing individual and group goals (short and long term). They examine the process of
and begin to understand how to be effective agents of social change. Offered fall semester. Civilization or Society.

**PER 351, 352  JUNIOR PERICLEAN SCHOLARS 2 sh/ea**

In the junior year, the Periclean Scholars cohort will continue broadening and deepening their knowledge of the content area(s) in the group’s chosen geographic location and/or issue(s). The mentor will guide and encourage the cohort to begin using the knowledge, conceptual and theoretical frameworks, and skill sets that they are learning in their majors as they engage in activities outlined in their chosen mission statement. PER 351 is offered in fall semester; PER 352 is offered in spring semester.

**PER 451, 452  SENIOR PERICLEAN SCHOLARS 2 sh/ea**

These courses serve as a capstone to the program. The students fully put to use all that they have learned in both their earlier Periclean classes and their majors in service to the projects and goals that they set out to address from the beginning of their experience. The mentor will guide them in both reflecting on what they have accomplished and in planning for how they will begin their lifelong role as Periclean Scholar alumni, sustaining the initiatives they began as undergraduates.

**Philosophy**

**Chair:** Professor Cahill  
**Professors:** Lubling, Weston  
**Associate Professors:** Batchelor, Bloch-Schulman  
**Lecturer:** Fowler

Philosophy lies at the heart of a liberal arts education. Philosophy at Elon has both a wisdom orientation for exploring enduring human concerns and a practical intent to enhance our lives together and our care for the earth.

Philosophical study at Elon focuses on three sets of skills: (1) critical and constructive thinking: aiding students in identifying, analyzing and offering solutions to problems; (2) ethical practice: exploring ways to act wisely and effectively in our life with others; and (3) interpretive understanding: allowing students to bridge the meaning and value systems of diverse individuals, cultures and epochs.

Such skills are valuable for law and leadership, ministry and the helping professions, citizenship and service, and for deepening the quality of our lives. At 40 semester hours, the philosophy major is designed to allow room for a double major or a career-related minor.

**A major in Philosophy requires the following courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHL 110</td>
<td>What Can We Know?</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHL 112</td>
<td>How Should We Live?</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHL 230</td>
<td>Methods of Philosophical Inquiry</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHL 331</td>
<td>Ancient Philosophy</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHL 333</td>
<td>Modern Philosophy</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose four courses from any additional PHL offerings, three of which must be 300-level or above  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHL 461</td>
<td>Integrative Tutorial</td>
<td>4 sh</td>
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</tbody>
</table>

**TOTAL**  

<table>
<thead>
<tr>
<th>Credits</th>
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<tbody>
<tr>
<td>40 sh</td>
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</table>


A minor in Philosophy requires the following courses:

Choose one course from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHL 110</td>
<td>What Can We Know?</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHL 112</td>
<td>How Should We Live?</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one course from the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHL 331</td>
<td>Ancient Philosophy</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHL 333</td>
<td>Modern Philosophy</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose three courses from any additional PHL offerings, two of which must be 300-level or above  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHL 110</td>
<td>What Can We Know?</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

This course introduces students to the amazing diversity of knowledge. Explore questions such as: How does scientific knowledge differ from literary insight, moral intuition and spiritual wisdom? When are doubt and skepticism justified, and when do these cautions keep us from risking to know the world in new ways? When is certainty unquestionable, difficult, undesirable, or simply impossible? Humans have limitations. Does it follow that human knowledge also has limitations besides error and ignorance? Knowledge is growing, but are we growing more knowledgeable or just more full of information? Must real knowledge be universal and/or accessible to everyone or is some knowledge personal and/or private? Join us in thinking philosophically about what we really know about knowledge.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHL 112</td>
<td>How Should We Live?</td>
<td>4 sh</td>
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</tbody>
</table>

This course invites you to think philosophically about the meaning of our working ethical values such as responsibility, respect and compassion, but also to develop a critical perspective on values: what life might be, should be, and ought to be. What is worthwhile and really matters? How does anyone know for sure? We explore the scope and depth of values such as community, beauty, justice, equality and wealth, while testing those values with rational skepticism and shared experience. The goal is to ask better questions about how we live so that we can practice those values that will enable us to bring about what is most worthwhile in action, community and in life.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHL 210</td>
<td>Critical Thinking</td>
<td>4 sh</td>
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This foundation course in critical thinking introduces reading and listening skills, argument analysis and evaluation, and creative problem-solving methods. Such skills are valuable throughout life, from making effective presentations to promoting independent thinking. Offered fall and spring.

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHL 212</td>
<td>Ethical Practice</td>
<td>4 sh</td>
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</table>

Ethical practice is a foundation course exploring ways to act wisely and effectively in our life with others. Drawing on the philosophical tradition and on critical examination of life situations, students engage such topics as personal integrity, sensitivity and fairness to others, and conditions for collaborative and respectful living. Offered fall and spring.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHL 215</td>
<td>Ethics and Decision Making</td>
<td>4 sh</td>
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</table>

This course explores the field of ethics with an emphasis on its application to decision making and leadership. It will explore nested contexts for decision making – environmental, institutional and interpersonal; use criteria for ethical assessment (e.g., what is good for the whole and fair to each participant/part in each context); and provide scope for ethical practice by means of a modest service learning component and case studies. This course is offered in conjunction with the leadership minor. Students may receive credit for both PHL 212 and PHL 215, but may only count one course toward a PHL major or minor. Offered fall.
PHL 230. METHODS OF PHILOSOPHICAL INQUIRY  4 sh
What exactly do philosophers do? What makes a particular way of inquiring philosophical? And what ethical, political and philosophical questions, problems, challenges and advantages do different methods have? This class will critically examine different methods of philosophical inquiry, both orthodox and heterodox, to address such questions. Students will engage with these methods through texts that describe and/or embody them, and through assignments that offer opportunities to enact different methods. This class is required for philosophy majors and recommended for any students interested in taking upper-level philosophy courses.

PHL 320. RECLAIMING DEMOCRACY  4 sh
Reclaiming Democracy brings together students and faculty from many different colleges and universities in Greensboro with others in the greater Greensboro community to examine what we mean by “democracy” and to explore the different traditions that drive public policy, governance and citizen engagement. The course draws on multiple disciplines to examine and model democracy, focusing on democracy in the local community.

PHL 321. CRAFTING A MEANINGFUL LIFE  4 sh
Everyone wants to live a meaningful life. However, not everyone knows how to go about doing so. During this hands-on workshop, students will learn to apply an assortment of philosophical skills that will empower them to develop their own approaches to life’s most basic questions: what counts as a meaningful existence? Is self-satisfaction and authenticity sufficient or are there objective criteria for making such judgments? How does meaningfulness relate to living a good or a happy life? Drawing on the wisdom offered by a variety of philosophical and religious traditions, students will enhance their self-understanding and develop a clear and satisfying personal vision for how to create and sustain meaning in their everyday practices.

PHL 330. ECONOMIC JUSTICE  4 sh
This class will explore the moral dimension of economic policy. Students will participate in a series of active exercises designed to illuminate the fact that economic policy decisions are, in fact, moral. By focusing on contemporary issues of social justice, students will critique economic theory and policy from a practical and a moral point of view.

PHL 331. ANCIENT PHILOSOPHY  4 sh
This study of the origins of Western philosophy concentrates on the Golden Age of Greece, including such topics as Socrates, his predecessors and his great successors, Plato and Aristotle. Students consider what it means to live a human life in a humane and liberating communal context. Offered at least once every two years.

PHL 333. MODERN PHILOSOPHY  4 sh
Discussion centers on crucial intellectual developments in the 17th and 18th centuries when the modern Western worldview arose. Specific attention is given to far-reaching changes in philosophical methods, theory of knowledge, new senses of self and world, and thinkers such as Descartes, Hume and Kant. Offered at least once every two years.

PHL 334. POLITICAL PHILOSOPHY  4 sh
Discussion focuses on the roots of modern political thought, including such key 17th- and 18th-century developments as the case for sovereignty in the modern nation state, the rise of individual rights and the rationale for modern democracy. Major thinkers such as Hobbes, Locke and Rousseau are studied against the background of their turbulent times.

PHL 338. NIETZSCHE AND THE DEATH OF GOD  2 sh
This course examines Friedrich Nietzsche’s critique of traditional thinking, in particular his critique of the institutions and assumptions of Western religions and his challenge to bring forth a new type of human being in the face of the “Death of God.” This is a two-credit, half-term course that readily pairs with PHL 339.
**PHL 339.  MARTIN BUBER AND THE ECLIPSE OF GOD  2 sh**

This course explores Martin Buber’s dialogical philosophy as a response to the modern condition that is both uniquely Jewish and at the same time universal, and as a philosophy of healing in both the individual and the collective sense. This is a two-credit, half-term course that readily pairs with PHL 338.

**PHL 341.  PHILOSOPHY OF LAW  4 sh**

This basic examination of the nature, function and limits of law gives attention to human rights and natural justice, law and morality, theories of punishment and questions of legal responsibility. The course is of particular interest to prelaw, business and political science students.

**PHL 342.  PHILOSOPHY AND SOCIETY  4 sh**

This course pursues a philosophical approach to the relation of individuals and social institutions. Topics considered may include the nature and possibility of the social sciences, philosophy of technology and the nature of community.

**PHL 344.  PHILOSOPHY OF SCIENCE  4 sh**

Course study promotes the intelligent, critical assimilation of scientific information by developing a general framework for analyzing scientific claims. Topics include the structure of scientific reasoning, science in its cultural context, and the logical and other elements shaping scientific change.

**PHL 345.  FEMINIST PHILOSOPHY  4 sh**

This survey and application of feminist philosophies examines central ideas in feminist thought, including the social construction of gender, the exclusion of women from traditional philosophy and the intersection of gender with other social factors such as race and class.

**PHL 346.  PHILOSOPHY OF THE BODY  4 sh**

This course explores philosophical questions surrounding the body and the self. Central to our exploration will be an attempt to understand the various connections between embodiment (the fact that we have bodies and our experiences of those bodies) and subjectivity (the fact that we are persons, capable of action and choices). The course includes contemporary and historical readings, extensive written work and activities based on the course material.

**PHL 348.  ENVIRONMENTAL ETHICS  4 sh**

Students explore the bearing of philosophical and religious ethics upon practical problems regarding the natural environment. This course also considers the possible need for new ethical frameworks to address the environmental crisis we now face. Cross-listed with REL 348.

**PHL 350.  THE SPIRIT OF ISRAEL  4 sh**

The 20th century proved to be one of the most challenging and defining periods in Jewish history; from the emergence of political Zionism and the tragedy of the Holocaust to the creation of the State of Israel. It is from this national entity that future Judaism will have to speak and serve its historical purpose, that is, “the great upbuilding of peace.” This course will examine the philosophical writings of thinkers associated with the spirit of Israel and the latter’s manifestation in Jewish history. A special attention will be given to the expression of such a spirit in the contemporary relationship between Israel and the world.

**PHL 352.  EASTERN PHILOSOPHY  4 sh**

Eastern Philosophy centers first on ancient China, exploring The Book of Changes and the thought of Lao Tzu and Confucius. The course continues with investigation of Buddha’s insight, following Mahayana Buddhism into China where it becomes Zen. Finally, the course examines the spirit of Zen and its influence on Japanese arts and culture.

**PHL 356.  RESTORATIVE JUSTICE  4 sh**

This is a rapidly growing cultural, political and criminal justice framework for doing justice beyond the State’s retribution against offenders. This course presents and applies the philosophy of restorative justice for dealing with violence, whether homicide or genocide,
through “moral repair.” This is the philosophy of justice beyond punishment to include apology, forgiveness, restitution and reconciliation.

**PHL 360. PHILOSOPHY OF EDUCATION 4 sh**

A philosophy of education is an interconnected set of views about what education is, what it is to learn and to teach, what knowledge is and what it is good for. These are fundamental questions to which the possible answers vary dramatically. This course begins by exploring the philosophy of education implicit in American education today and proceeds into a range of increasingly challenging alternatives.

**PHL 361. CONTEMPORARY PHILOSOPHY 4 sh**

Students become acquainted with philosophical trends in the 20th century and develop appropriate skills of inquiry. The course surveys the changing landscape of philosophy in this volatile century and introduces students to key figures who have shaped that landscape.

**PHL 362. AMERICAN PHILOSOPHY 4 sh**

Focusing on the rich heritage of 19th- and 20th-century American thought from such figures as Emerson, Thoreau, Pierce, James, Dewey and others, this course emphasizes the originality of American philosophy and its continuing relevance.

**PHL 366. MARX, DARWIN AND FREUD 4 sh**

These revolutionary makers of the modern mind — Marx, Darwin and Freud — have had enduring influence on subsequent thought in such diverse fields as philosophy and politics, biology and religion, sociology and psychology. This course examines their work in light of more recent attempts to incorporate, reform and extend their insights.

**PHL 371-79. SPECIAL TOPICS 4 sh**

Special topics are variable courses of timely and enduring interest. Past and current offerings include:

- PHL 373 Philosophy and the Holocaust
- PHL 374 Heidegger
- PHL 375 Philosophy and Film
- PHL 377 Theories of Knowledge
- PHL 378 Philosophy of Human Experience

**PHL 461. INTEGRATIVE TUTORIAL 4 sh**

This capstone course integrates the student’s understanding of the history, issues and demands of philosophy via readings, class discussion and individual mentoring projects with philosophy faculty. It culminates with a final project on a topic chosen by the student which requires substantial philosophical research, writing and reflection and is evaluated by all members of the department. Offered fall of senior year.

**PHL 471. SEMINAR: SPECIAL TOPICS 4 sh**

**PHL 481. INTERNSHIP IN PHILOSOPHY 1-4 sh**

The internship provides work experience in a setting that is rich with practical philosophical problems. The goal is to enrich the student’s appreciation of the link between philosophy and life. Offered on an individual basis when suitable opportunities can be arranged. Permission of the department is required.

**PHL 491. INDEPENDENT STUDY 1-4 sh**
The Physical Education and Health curriculum is located within the Department of Health and Human Performance and is designed to prepare prospective K-12 teachers to be active, knowledgeable and effective professionals. Courses prepare teacher candidates to effectively apply scientific knowledge and theory in school settings that impacts the health and wellness of all students.

A major in Physical Education and Health requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DAN 115</td>
<td>Folk, Square and Social Dance Pedagogy</td>
<td>2 sh</td>
</tr>
<tr>
<td>PED 109</td>
<td>Aerobic Conditioning and Weight Training</td>
<td>1 sh</td>
</tr>
<tr>
<td>PEH 125</td>
<td>Skills and Activities for Teaching Lifetime Sports</td>
<td>2 sh</td>
</tr>
<tr>
<td>PEH 126</td>
<td>Skills and Activities for Teaching Team Sports</td>
<td>2 sh</td>
</tr>
<tr>
<td>PEH 211</td>
<td>Foundations of Physical Education and Health</td>
<td>2 sh</td>
</tr>
<tr>
<td>PEH 305</td>
<td>Legal Aspects and Adapted Physical Education</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 310</td>
<td>Motor Learning Theory for Teaching and Coaching</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 324</td>
<td>Nutrition</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 325</td>
<td>Substance Abuse and Human Behavior</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 360</td>
<td>Physical Education Pedagogy (Grades K-5)</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 411</td>
<td>Measurement and Evaluation</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 423</td>
<td>Physical Education Pedagogy (Grades 6-12)</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 427</td>
<td>Health Education Pedagogy (Grades 6-12)</td>
<td>2 sh</td>
</tr>
<tr>
<td>ESS 321</td>
<td>Biomechanics</td>
<td>4 sh</td>
</tr>
<tr>
<td>ESS 422</td>
<td>Physiology of Exercise</td>
<td>4 sh</td>
</tr>
<tr>
<td>BIO 161</td>
<td>Human Anatomy</td>
<td>4 sh</td>
</tr>
<tr>
<td>BIO 162</td>
<td>Human Physiology</td>
<td>4 sh</td>
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<tr>
<td>TOTAL</td>
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<td>55 sh</td>
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</tbody>
</table>

Students must show proof of valid First Aid/CPR certification any time prior to graduation.

Licensure requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 301-03</td>
<td>Explorations Seminar(s)</td>
<td>2 sh</td>
</tr>
<tr>
<td>EDU 355</td>
<td>Teaching in 21st Century Classrooms</td>
<td>4 sh</td>
</tr>
<tr>
<td>EDU 481</td>
<td>Supervised Observation and Student Teaching</td>
<td>10 sh</td>
</tr>
<tr>
<td>CIS 220</td>
<td>Technology in Teaching and Learning</td>
<td>3 sh</td>
</tr>
<tr>
<td>PSY 321</td>
<td>Educational Psychology</td>
<td>4 sh</td>
</tr>
<tr>
<td>SOC 243</td>
<td>Sociology in Education</td>
<td>4 sh</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td>27 sh</td>
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</tbody>
</table>
A minor in Physical Education and Health requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEH 211</td>
<td>Foundations of Physical Education and Health</td>
<td>2 sh</td>
</tr>
<tr>
<td>PEH 310</td>
<td>Motor Learning Theory for Teaching and Coaching</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 325</td>
<td>Substance Abuse and Human Behavior</td>
<td>4 sh</td>
</tr>
<tr>
<td></td>
<td>Eight hours of 300/400 level courses selected</td>
<td>8 sh</td>
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<tr>
<td></td>
<td>from the PEH major requirements</td>
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</table>

**TOTAL**   18 sh

A minor in Coaching requires the following courses:

Choose one course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEH 125</td>
<td>Skills and Activities for Teaching Lifetime Sports</td>
<td>2 sh</td>
</tr>
<tr>
<td>PEH 126</td>
<td>Skills and Activities for Teaching Team Sports</td>
<td>2 sh</td>
</tr>
<tr>
<td>PEH 212</td>
<td>Sports Injuries Care and Prevention</td>
<td>2 sh</td>
</tr>
<tr>
<td>PEH 310</td>
<td>Motor Learning Theory for Teaching and Coaching</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 345</td>
<td>Principles of Coaching</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 423</td>
<td>Physical Education Pedagogy, Grades 6-12</td>
<td>4 sh</td>
</tr>
<tr>
<td>PEH 481</td>
<td>Internship in Coaching</td>
<td>2 sh</td>
</tr>
</tbody>
</table>

(or 1 + 1)

**TOTAL**   18 sh

**Physical Education and Health Courses**

**PEH 125. SKILLS AND ACTIVITIES FOR TEACHING LIFETIME SPORTS**  2 sh

This course provides students with enhanced skill levels, knowledge and strategies to teach various lifetime sports/activities in a physical education setting. Activities may include tennis, golf, racquetball, hiking, skating, yoga, badminton, disc golf, track and field, etc. The course requires significant physical activity in both the participation and presentation of selected lifetime activities. Offered spring.

**PEH 126. SKILLS AND ACTIVITIES FOR TEACHING TEAM SPORTS**  2 sh

This course provides students with enhanced skills, knowledge and strategies to teach various team sports in physical education settings. Activities may include soccer, softball, football, basketball, lacrosse, field hockey, cricket, etc. The course requires significant physical activity in both the participation and presentation of selected team sports. Offered fall.

**PEH 211. FOUNDATIONS OF PHYSICAL EDUCATION AND HEALTH**  2 sh

This course is an introduction to the foundation of the field of physical education in the United States including related areas of health education and sport. The broader discipline of kinesiology is also presented noting trends and interconnections with physical education and health. Offered spring.

**PEH 212. SPORTS INJURIES CARE AND PREVENTION**  2 sh

This course is designed to teach competence as a first responder to sports injuries in perspective of a sport coach. The students will examine methods of recognition, care, prevention and evaluation of athletic injuries. Students also will be provided the opportunity to become American Red Cross certified in Adult CPR/AED and Sport First Aid. Offered spring, second-half.

**PEH 305. LEGAL ASPECTS AND ADAPTED PHYSICAL EDUCATION**  4 sh

This course provides prospective physical education and health teachers knowledge and understanding of current legislation pertaining to the field of physical education. Students
will gain in-depth knowledge of students with special needs and their exceptionalities. Planning, assessment and teaching methods related to enhancing physical skills and fitness to individuals with disabling conditions will be presented through both lecture and practical experience.

**PEH 310. MOTOR LEARNING THEORY FOR TEACHING AND COACHING 4 sh**

This course examines the theories of motor skill acquisition and performance. Students will study the neurobiological subsystems associated with learning motor skills. Synthesis of experimental approaches in motor learning research will provide students with a framework for practical application in educational settings. Prerequisite: Junior/senior standing. Offered fall.

**PEH 324. NUTRITION 4 sh**

This course provides a comprehensive study of nutrient basics. Topics include digestion, metabolism, vitamins, minerals, supplements, steroids, weight management, eating disorders, nutritional deficiencies and imbalances. Practical application of nutrition concepts in exercise settings is emphasized. Prerequisites: Junior/senior standing, BIO 162. Offered fall and spring.

**PEH 325. SUBSTANCE ABUSE AND HUMAN BEHAVIOR 4 sh**

This course provides a comprehensive study of factors influencing alcohol and other drug use including personality, societal and biological factors. Prevention through the curriculum, identifying the high-risk student and appropriate referrals in the school system and community is emphasized. Students will gain experience using technology as a strategic resource related to this topic. Offered spring or winter term.

**PEH 345. PRINCIPLES OF COACHING 4 sh**

This class provides a thorough study of the role of coaches in the school and community. Topics to be examined include coaching philosophies, ethics, motivational theories, physical preparation of the athlete and administrative management of a sport team. Prerequisite: PEH 125 or PEH 126. Offered spring.

**PEH 360. PHYSICAL EDUCATION PEDAGOGY, GRADES K-5 4 sh**

This class is designed to prepare students to teach physical education in grades K-5. This preparation includes knowledge of movement education, motor skills, skill analysis and pedagogy. Clinical hours in public schools are required. Prerequisite: PEH 211. Offered spring.

**PEH 362. HEALTHFUL LIVING IN THE ELEMENTARY SCHOOL 2 sh**

This course is designed for the elementary classroom teacher to better understand the health, safety and physical education needs of the K–5th student. The focus of this course is content knowledge and methodology related to Physical Education, Safety and Health. Clinical hours in public schools are required. Prerequisite: SOC 243 or permission of instructor. Offered fall and spring.

**PEH 411. MEASUREMENT AND EVALUATION 4 sh**

This course includes the study, administration and interpretation of psychomotor, cognitive and affective tests for use in K–12 settings. Application of testing skills and concepts to assess state and national physical education and health standards will be a foundational component of the course. Prospective physical education and health teachers will be provided with the knowledge, skills and experience necessary to prepare for the assessment component of North Carolina teacher licensure. Prerequisite: PEH 211; should be taken concurrently with PEH 423 and PEH 427. Offered fall.

**PEH 421. CHRONIC AND ACUTE DISEASES 4 sh**

Students study the interdependency of body systems and diseases and conditions that affect human health and well-being. Topics include the historical foundation of health professions, immunology, pathophysiology of prominent acute and chronic diseases, sociocultural factors that influence health, and consequences and prevention of major health risk behav-
iors. Methods of health appraisal and screening are also investigated. Prerequisites: BIO 161 and 162. Offered fall.

**PEH 423. PHYSICAL EDUCATION PEDAGOGY, GRADES 6-12**  
This course is designed to prepare the student to effectively teach physical education in a middle or high school setting. Content focuses on curriculum design and implementation using a variety of curricular models, enhanced instructional delivery and classroom management specific to Physical Education. Clinical hours in public schools are required. Prerequisite: Junior/senior standing and PEH 211. For coaching minors, permission of instructor. Should be taken concurrently with PEH 427. Offered fall.

**PEH 427. HEALTH EDUCATION PEDAGOGY, GRADES 6-12**  
Students in this course develop skills and strategies for secondary health education curriculum planning and assessment. A variety of approaches for teaching middle and high school health are explored. Clinical hours in public schools are required. Prerequisites: PEH 211 and junior/senior standing; should be taken concurrently with PEH 423. Offered fall.

**PEH 481. INTERNSHIP IN COACHING**  
This course provides students with 80 hours of experiential opportunities in coaching and addresses the sports pedagogy domain of the National Association of Sport and Physical Education (NASPE) National Coaching Standards. Students may choose one 80-hour experience or two 40-hour experiences. Students must make arrangements with their professor the semester prior to registering for the internship. The internship may take place in any approved setting at the middle, high school or college level. Prerequisites: Completion of 10 hours in the coaching minor and 2.0 overall GPA. Offered fall, winter, spring and summer.

**PEH 491. INDEPENDENT STUDY**  

**PEH 499. RESEARCH IN PHYSICAL EDUCATION AND HEALTH**  
Independent research project supervised by faculty mentor.

**Health Education Courses**

**HED 111. CONTEMPORARY WELLNESS ISSUES**  
Students will study selected topics in personal wellness. Students will examine current issues pertaining to personal choices and well-being. Topics may include nutrition and weight management, exercise for health and wellness, psychosocial aspects of health and wellness and the effects of alcohol and other drugs. Each spring semester, three (3) themed wellness courses are offered: Health of the Human Spirit; Mindfulness: Stress and Well-being; Health Related Fitness. This course meets half-semester and satisfies first-year core requirements. Offered fall and spring.

**Physical Education Courses**

The Physical Education (PED) activity program is designed to promote the acquisition and application of psychomotor, cognitive and affective skills in a variety of recreational and sport settings. Emphasis is placed on individual skill development. Students will have the opportunity to test their proficiencies; demonstrate knowledge of rules and etiquette; and experience the ways in which physical activity contributes to the physical, psychological and emotional states of well being.

**PED 100. TENNIS I**  
Students learn basic rules, skills and strategies of tennis. Special fee: $25. Offered fall and spring.

**PED 101. RACQUETBALL I**  
Students learn basic rules, skills and strategies of racquetball. Special fee: $25. Offered fall and spring.

**PED 105. GOLF I**  
Students learn basic rules, skills and strategies of golf. Offered fall and spring. Special fee: $40.
PED 107. LIFEGUARD TRAINING  3 sh
Students gain knowledge and skills for aquatic safety and nonsurf lifeguarding, first aid, professional rescuer CPR and head lifeguarding. Students will receive Red Cross certification upon successful completion. Prerequisites: strong swimming skills. Special fee: $30. Spring only.

PED 109. AEROBIC CONDITIONING AND WEIGHT TRAINING  1 sh
Progressive development of physiological fitness designed to meet the needs of the individual student, including weight and cardio-respiratory training. Students will learn how to design and implement a weight program based on their individual needs. Offered fall and spring.

PED 115. BASIC CANOE AND CANOE CAMPING  1 sh
This is an introductory course in the basics of canoeing and canoe camping. It is intended for beginners as well as experienced paddlers. The course stresses technique, safety and enjoyment. Instruction is designed to provide both an understanding of the principles of river canoeing and an opportunity to develop skill through practice. You will learn about equipment, strokes, maneuvering in current, paddling in Class II Whitewater, river reading, safety skills, rescue techniques and knot tying. There will be plenty of opportunity to paddle both solo and in tandem. You will also learn how to plan and conduct a multi-day canoe camping adventure that stresses “Leave No Trace” principles. Offered fall. Special fee: $225.

PED 116. OUTWARD BOUND EXPERIENCE  1-3 sh
This is a course in wilderness survival, including physical survival skills, fitness, cognitive and emotional skills and study of the natural world. Offered as personnel are available or independent study. Special fee applies.

PED 120. WHITEWATER CANOEING  1 sh
This is an introductory course in whitewater canoeing. It stresses technique, safety and enjoyment. Instruction is designed to give participants a solid foundation in Class II Whitewater and includes choosing the correct equipment, balance, bracing, paddling strokes, whitewater maneuvers (upstream and downstream ferries, eddy turns and peel-outs), river reading, safety, and assisted and self-rescue techniques. If during the course students reach proficiency in Class II Whitewater, the class may then advance to paddling Class III Whitewater before it concludes. Offered spring. Special fee: $225.

PED 121. TENNIS II  1 sh
Students practice and apply the skills and strategies of singles and doubles tennis through drills and games. Students should have intermediate level tennis skills including consistent ground strokes and serving, experience with net play, and knowledge of game rules and etiquette prior to registration. Prerequisite: PED 100 or permission of instructor. Special fee: $25. Offered fall and spring.

Physics

Chair: Associate Professor Crider
Professor: P. Das
Associate Professors: Agnew, Altmann, D’Amato, Kamela
Assistant Professors: B. Evans, D. Evans, Hargrove-Leak
Lecturer: Moreau
Science Lab Manager: Gilliam

Students at Elon University learn physics by doing physics. Our department, along with the engineering program, offers three distinct physics degrees: a Bachelor of Science in Physics for students interested in becoming professional physicists, a Bachelor of Science in Engineering Physics for students interested in becoming engineers, and a Bachelor of Arts in Physics for those that wish to explore the intersection between physics and our society.
Our department also offers minors in both Astronomy and Physics for students with a casual interest in these fields.

All first-year physics majors are encouraged to begin working with a professor to develop their research skills. Freshmen also learn the basics of mechanics and electricity in an integrated lecture/lab classroom. During their second year, majors apply these new skills to problems in astrophysics, optics and special relativity. Junior physics majors cultivate a more scholarly approach to research, working in teams in our lab/seminar course. Building on this base, we offer courses in the advanced theory of electromagnetic phenomena, the mysterious world of quantum mechanics and a wide range of other topical courses, including classical mechanics, mathematical physics, circuit design, thermodynamics, field theory, statistical mechanics, etc. Before graduating, students planning a career in physics conduct an independent research project.

The Bachelor of Science in Physics degree is appropriate for students interested in graduate school or in pursuing careers in physics or other technical fields. The A.B. in Physics, the minor in Astronomy and the physics minor are suitable for students with interests in other fields who wish to develop strong critical thinking skills and a solid understanding of the most foundational science. The engineering physics major is designed to function with Elon’s 3–2 engineering program. If you are fascinated by the mysteries of the universe and excited by observation, problem solving and creative thought, then the Department of Physics is the place for you.

A Bachelor of Arts degree in Physics requires the following courses:

This degree requires a full minor or second major in another discipline (not including astronomy or engineering).

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY at 100-level or higher</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>PHY 221</td>
<td>University Physics I</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 222</td>
<td>University Physics II</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY at 300-level or higher</td>
<td>12 sh</td>
<td></td>
</tr>
<tr>
<td>PHY at 400-level or higher</td>
<td>8 sh</td>
<td></td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 221</td>
<td>Calculus II</td>
<td>4 sh</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>40 sh</strong></td>
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</tbody>
</table>

A Bachelor of Science degree in Physics requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 221</td>
<td>University Physics I</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 222</td>
<td>University Physics II</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 314</td>
<td>Modern Physics</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 397</td>
<td>Research Methods I</td>
<td>2 sh</td>
</tr>
<tr>
<td>PHY 398</td>
<td>Research Methods II</td>
<td>2 sh</td>
</tr>
<tr>
<td>PHY 401</td>
<td>Classical Mechanics</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 403</td>
<td>Electrodynamics I</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 404</td>
<td>Electrodynamics II</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 411</td>
<td>Quantum Mechanics</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 221</td>
<td>Calculus II</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

264
MTH 321  Multivariable Calculus and Analytic Geometry  4 sh
MTH 421  Differential Equations  4 sh
CSC 130  Computer Science I  4 sh
Eight semester hours of PHY at 300 level or higher  8 sh
PHY 499  Research  1 sh

Demonstrate competence in physics during the junior/senior assessment, as determined by the physics department.

TOTAL  61 sh

A Bachelor of Science degree in Engineering Physics: See requirements listed under Engineering.

A minor in Physics requires the following courses:

PHY 221  University Physics I  4 sh
PHY 222  University Physics II  4 sh
PHY 314  Modern Physics  4 sh
Eight semester hours of PHY at 300 level or higher  8 sh

TOTAL  20 sh

A minor in Astronomy requires the following courses:

PHY 102  Introduction to Astronomy  4 sh
PHY 205  Galactic Astronomy  4 sh
Select one course from the following:  4 sh
  PHY 201  General Physics I
  PHY 221  University Physics I
Select one course from the following:  4 sh
  PHY 202  General Physics II
  PHY 222  University Physics II
PHY 313  Modern Astrophysics  4 sh
Four hours of related material as selected in advance in consultation with astronomy advisor and approved in advance by physics department chair. Appropriate courses should support the specific direction of the student’s minor and may include advanced physics, interdisciplinary or related scientific studies, eg.  4 sh

TOTAL  24 sh

PHY 101.  CONCEPTUAL PHYSICS  4 sh
This course provides an introduction to the major ideas in both classical and modern physics. Students will be introduced to experiments of the ancient Greeks, Renaissance scholars and classical natural philosophers. The formulation of gravitational and mechanical theories, thermodynamics, the particle nature of matter and aspects of elementary electromagnetism will be included. Twentieth-century perspectives including the theory of relativity, quantum mechanics and chaos will be studied. Laboratory included. Offered fall and spring.
PHY 102.  INTRODUCTION TO ASTRONOMY  
Astronomy examines the nature of light, astronomical instruments and our attempts to understand the origin of our solar system and its constituents: the sun, planets, asteroids, comets and meteors. Laboratory included. Offered fall and spring.

PHY 103.  INTRODUCTION TO GEOLOGY  
This geology course includes a study of the nature and origin of rocks and minerals, evolution of the landscape, plate tectonics, coastal dynamics and geologic time. Laboratory included. Offered fall and spring.

PHY 105.  THE PHYSICS OF SOUND  
This course provides an introduction to oscillations and waves with applications to sound. It examines the scientific basis for “musical sound” the production of sound in musical instruments, recording studios’ use of the properties of sound and the acoustics of concert halls. Laboratory included. Offered fall and spring.

PHY 110.  ENERGY AND THE ENVIRONMENT  
This course provides an introduction to energy concepts and the basic modes of energy production and use, focusing on environmental problems that are a consequence of such activities. Laboratory included. Offered fall and spring.

PHY 201, 202.  GENERAL PHYSICS I AND II  
Designed for students majoring in the biological and/or health-related sciences, this survey of classical and modern physics includes mechanics, waves, heat, electricity, magnetism, optics, and atomic and nuclear physics. Labs included. Prerequisite: MTH 100 or placement exemption. Prerequisite for PHY 202: PHY 201. PHY 201 offered fall; PHY 202 offered spring.

PHY 205.  GALACTIC ASTRONOMY  
Galactic astronomy involves study of the universe beyond the solar system, including stars, clusters, stellar evolution, variable stars, the Milky Way and other galaxies, quasars and cosmological models. Satisfies non-laboratory General Studies requirement. Prerequisite: MTH 100 or higher.

PHY 221, 222.  UNIVERSITY PHYSICS I AND II  
This survey of topics in classical physics is designed for students majoring in math, physics or planning to transfer into an engineering program. Topics include kinematics, dynamics, thermodynamics, electrostatics, electrodynamics and waves. Labs included. Corequisite for PHY 221: MTH 121. Prerequisite for PHY 222: PHY 221. PHY 221 offered fall; PHY 222 offered spring.

PHY 310.  ENGINEERING THERMODYNAMICS  
This course is an introduction to the concept of energy and the laws governing the transfers and transformations of energy. Emphasis is on thermodynamic properties and First and Second Law analysis of systems and control volumes. Integration of these concepts into the analysis of basic power cycles is introduced. Prerequisites: MTH 321 and PHY 222.

PHY 313.  MODERN ASTROPHYSICS  
Astrophysics is the modern science of taking what has been learned about the universe from physics experiments and using it to explain what astronomers see in space. Students in this class will learn how we know about the nature of the stars, the age of the universe, the mystery of dark energy, and the possibility of life on other planets. This course serves as a bridge between University Physics and upper-level physics classes. Pre-requisites: PHY 201 or PHY 221. Offered fall.

PHY 314.  MODERN PHYSICS  
A continuation of PHY 221 and PHY 222, this course provides further study of wave dynamics, special relativity, early quantum mechanics, wave mechanics and an introduction to solid state and nuclear physics. Laboratory included. Prerequisite: MTH 221. Offered fall.
PHY 321.  CIRCUIT ANALYSIS 3 sh
This course is an introduction to the theory, analysis and design of electric circuits. Studies include circuit parameters and elements: voltage, current, power, energy, resistance, capacitance and inductance. Also included is the application of Kirchhoff’s laws to simple and complex circuits and the study of the steady-state and transient response of circuits to pulse, step and periodic inputs. This course is cross-listed as EGR 211. Prerequisites: MTH 221 and PHY 222. Corequisite: PHY 322.

PHY 322.  CIRCUIT ANALYSIS LAB 1 sh
This course involves laboratory application of concepts and principles discussed in PHY 321. PHY 322 is cross-listed as EGR 212. Corequisite: PHY 321.

PHY 397, 398.  RESEARCH METHODS I AND II 2 sh/ea
The junior research methods lab/seminar is a two-semester course in laboratory techniques at an advanced level designed for physics and engineering physics majors. It will include instruction in the use of research equipment such as AFM, STM, NMR, high vacuum, LEED, Auger spectrometer, UV/VIS spectrophotometer, cryogenics and lock-in amplifiers. Introduction to journal research, a focused research project and a seminar presentation of results will be required. Offered fall and spring.

PHY 401.  CLASSICAL MECHANICS 4 sh
In this introduction to Lagrangian and Hamiltonian treatments of classical mechanics, students explore variational principles, conservation laws, contemporary approaches to dynamical systems and topics in chaos theory. Laboratory included. Prerequisite: PHY 222. Offered fall of alternate years.

PHY 402.  STATISTICAL MECHANICS 4 sh
This study covers statistical methods, the concept of the ensemble and statistical averages, and explores thermodynamics using a theoretical progression from statistical analysis to thermodynamic variables. In-depth studies include conservation laws and thermodynamical variables such as entropy and free energy. Laboratory included. Prerequisite: PHY 401.

PHY 403.  ELECTRODYNAMICS I 4 sh
Classical electrodynamics involves the study of electrostatics (including image methods and electric fields in the presence of dielectric media), vector analysis, continuity conditions for field quantities at interfaces, and magnetism and magnetostatics. Laboratory included. Prerequisite: PHY 314. Offered fall of alternate years.

PHY 404.  ELECTRODYNAMICS II 4 sh
This course includes Maxwell’s equations and continuation of electrodynamics and explores the natural connection of field theory and electrodynamics and basic mathematical tools, including tensor analysis. By experiments and numerical simulation, students investigate electromagnetic radiation and fields. Laboratory included. Prerequisite: PHY 403. Offered spring of alternate years.

PHY 411.  QUANTUM MECHANICS 4 sh
Study of quantum mechanics includes basic mathematical underpinnings of quantum formalisms and treats several basic problems including Hydrogen-like atoms and lasers in depth. Laboratory included. Prerequisite: PHY 401. Offered spring of alternate years.

PHY 412.  RELATIVITY AND COSMOLOGY 4 sh
This course begins by examining fundamentally electrodynamical problems out of which special relativity was born. Students read Einstein’s original paper and study the classical paradoxes in depth. Discussion of cosmological problems includes black holes, galactic red shift and early universe theory. Some aspects of the general theory of relativity are also introduced. Prerequisites: PHY 403 and 404.

PHY 471.  SPECIAL TOPICS IN PHYSICS 4 sh
These contemporary topics include, but are not limited to, chaos theory and nonlinear dynamics, solid state and condensed matter physics, optics, advanced quantum mechanics and particle physics. Prerequisite: Permission of the instructor.
This semester-long supervised research project involves experimental, numerical or theoretical investigation of a single problem, culminating in a detailed report describing the methods, results and analysis performed including a publication-style abstract of the research.

**Political Science**

*Chair, Department of Political Science and Public Administration: Associate Professor Spray*

*Professors: C. Brumbaugh, Roselle, Taylor, Zarzar*

*Associate Professors: R. Anderson, Bacot, Morgan*

*Assistant Professors: Farganis, Giovanello, Kirk, Kromer, Sorensen, Swimelar*

*Lecturer: Short*

*Adjuncts: Colbert, Harman*

Political Science seeks to understand the ideas, individuals and institutions engaged in making public policies that influence the lives of people in communities ranging from local to global. Courses investigate current issues and opinions, the process by which voters or leaders make decisions, the behavior of organized groups and governmental agencies, the relationships between nations and classic questions of how societies balance freedom, social justice, order and efficiency.

Students in this discipline are encouraged to develop critical reading, writing and research skills (often using computer programs); participate in role-playing simulations of local governments, legislatures, the United Nations and international relations; work as interns at the local and state level in government agencies, election campaigns and law firms; and spend a semester in Washington, D.C., working in executive and judicial agencies, the U.S. Congress, interest groups and international organizations.

The department offers majors in Political Science and Public Administration as well as minors in these fields. Students can concentrate their coursework in one or more subfields: American government, international relations, comparative politics, public administration, law and political theory. These programs help prepare students to enter graduate and law school, and pursue a wide range of careers in legislative, executive and judicial agencies; business; teaching; journalism; interest group advocacy; campaign management and international public service.

*A major in Political Science requires the following courses:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 111</td>
<td>American Government</td>
<td>4</td>
</tr>
<tr>
<td>POL 161</td>
<td>Comparative Politics</td>
<td>4</td>
</tr>
<tr>
<td>POL 220</td>
<td>Research Methods in Political Science</td>
<td>4</td>
</tr>
<tr>
<td>POL 461</td>
<td>Senior Seminar in Political Science</td>
<td>4</td>
</tr>
</tbody>
</table>

One course selected from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 300</td>
<td>Introduction to Political Thought</td>
</tr>
<tr>
<td>POL 303</td>
<td>Democratic Theory</td>
</tr>
<tr>
<td>POL 304</td>
<td>Theorists of Non-Violence</td>
</tr>
</tbody>
</table>

Twenty-four additional hours in POL       24 sh

**TOTAL** 44 sh
It is strongly recommended that Political Science majors, in consultation with their advisors, select a subfield or topical concentration of at least 12 semester hours at the 300-level and above. Subfield and concentration courses will be chosen from among the 24 elective hours. With the approval of the student’s advisor, up to four hours from outside the political science and public administration department may be applied toward the concentration. No more than eight internship hours may be applied to the major.

A minor in Political Science requires the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 111</td>
<td>American Government</td>
<td>4 sh</td>
</tr>
<tr>
<td></td>
<td>Sixteen semester hours in POL</td>
<td>16 sh</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td>20 sh</td>
</tr>
</tbody>
</table>

**POL 111. AMERICAN GOVERNMENT**

This course serves as an introduction to the national political system including the legislative, executive and judicial branches, the Constitution, political parties, interest groups, public opinion and public policy issues. Offered fall and spring.

**POL 112. NORTH CAROLINA STUDENT LEGISLATURE**

This is an experiential course which promotes active participation in the NCSL, debate of public issues and organizational involvement at the university and state-wide level. Offered fall and spring.

**POL 114. MODEL UNITED NATIONS**

Through experiential learning activities, students gain insight into the issues of the United Nations, diplomacy and international politics. Offered fall and spring.

**POL 116. LOCAL GOVERNMENT SIMULATION**

This course examines the structure and functioning of local governments and applies that understanding in a simulation of local government issues in which students assume the roles of city council members, planning commission members, organizational leaders, business owners, citizen groups and the media. Offered winter.

**POL 141. INTERNATIONAL RELATIONS**

This course gives students a basic appreciation for our world and examines political issues such as the role of power and international law in the international system and economic, social and cultural features of the world. Offered fall and spring.

**POL 161. COMPARATIVE POLITICS**

This introduction to the central concepts of comparative politics and to the major types of contemporary political systems may include Britain, Germany, Japan, Nigeria, China, Mexico and the post-Soviet independent states of Eurasia. Offered fall and spring.

**POL 220. RESEARCH METHODS IN POLITICAL SCIENCE**

This course introduces methodologies used in political science research. It focuses on concept formation, research design for problem solving and the measurement of data and data analysis. Political science and public administration majors should take this course in their sophomore year. Offered fall and spring.

**POL 222. STATE AND LOCAL GOVERNMENT AND POLITICS**

This course focuses on the structure and functioning of the state and local government and their roles within the American federal system. Offered fall and spring.

**POL 224. ENVIRONMENTAL POLICY AND LAW**

This course focuses on the policy processes and institutional settings for environmental policy formation and governmental action. It deals with the role of the courts, Congress and federal agencies in the development, implementation and evaluation of environmental policy. Offered fall.
POL 300.  INTRODUCTION TO POLITICAL THOUGHT  
In a critical introduction to the great political thinkers, discussion spans from Plato to Rousseau. Offered spring.

POL 303.  DEMOCRATIC THEORY  
This course examines conceptions, models and themes of democracy around the world using a comparative approach with special emphasis on models of democracy as they developed in the U.S. Offered fall.

POL 304.  THEORISTS OF NON-VIOLENCE  
Non-violent alternatives to violence in resolving interpersonal and intergroup conflicts will be explored in light of the various Eastern and Western moral and religious traditions. The thought of such thinkers as Mahatma Gandhi, Martin Luther King, Jr. and others are included.

POL 311.  CRIMINAL LAW  
This course studies criminal procedure, elements of criminal law and standards of evidence. In addition to various infractions such as homicide, assault, robbery, property and drug crimes, it examines the right to an attorney, reasonable cause to stop and probable cause to arrest, criminal defenses, witness identification and wrongful convictions. Offered fall.

POL 312.  POLITICAL ENGAGEMENT  
Using a theoretical and experiential approach, this course capitalizes on the excitement surrounding electoral campaigns to focus on the concept of political engagement. Readings about political values and civic activities complement fieldwork in civic areas, including voter registration and political debates. Offered fall of even-numbered years.

POL 313.  AMERICAN POLITICS THROUGH FILM  
This course uses documentaries and fictional films to probe the politics of different historical eras and political topics, emphasizing analytical papers and class discussions. Offered summer.

POL 316.  GENDER AND AMERICAN POLITICS  
This course focuses on the role that gender plays in shaping American politics. Topics include gendered differences in political socialization and learning, as well as behavioral differences in men and women when running for and serving in political office. Offered every other year.

POL 317.  CAMPAIGN MANAGEMENT  
This course provides a practical study of how to run an election campaign with attention to setting up, staffing and financing a campaign office, organizing events, media relations, campaign technology, polling, advertising and getting out the vote. Students spend significant time as an intern for a candidate of their choice and reflect on their experience. Offered fall of even-numbered years.

POL 318.  CAMPAIGNS AND ELECTIONS  
An examination of election systems and how campaigns function, what prompts candidates to run for office, the role of the media, and why voters choose certain candidates over others. Normative questions will be addressed, such as the extent to which elections permit citizens to have a meaningful voice in the American political process. Offered fall of even-numbered years.

POL 319.  PARTIES AND INTEREST GROUPS  
An examination of the role that parties and interest groups have played and are playing in American politics, how they advocate public policy preferences, and how they organize legislatures and carry out electoral and policy-oriented efforts to impact legislation. Offered every other year.

POL 320.  STATE LEGISLATURES  
This course examines the dynamics of state legislatures, which often produce innovative policy initiatives within the American political system. Topics include how state lawmakers
interact with governors, interest groups, party leaders and constituents when running for and serving in elected office. While the differences between the 99 state legislative chambers will be studied, a special effort will be made to meet members of the North Carolina General Assembly in Raleigh. Offered spring of odd-numbered years.

POL 321. PUBLIC OPINION POLLING 4 sh
The goal of this course is for students to learn how to supervise a public opinion poll and apply survey research theory to the Elon Poll. Students participate as interviewers in several polls and learn survey design, computer programming, analysis of poll data and how to write about survey results. Offered fall.

POL 322. STATE ENVIRONMENTAL POLICY AND ADMINISTRATION 4 sh
This course introduces students to environmental policy and administration in the United States with a focus on subnational policymaking and administration. With the current norm of devolving policy responsibilities away from the federal level, emphasis will be on the capacity and performance of states and their local governments in managing environmental policies from an intergovernmental perspective.

POL 323. CONSTITUTIONAL LAW 4 sh
This course introduces students to American constitutional law and the U.S. Supreme Court. Students will learn about the court’s history, the decision-making process, the justices, constitutional interpretation and how to read cases. The course then uses a case study approach to examine the Court’s decisions in areas such as federalism, presidential power and property rights. Special emphasis is placed on current debates and controversies. Offered fall.

POL 324. CIVIL LIBERTIES 4 sh
This course examines how the U.S. Supreme Court handles cases involving individual freedom and liberty. Students will learn about the Court’s history, the decision-making process, the justices, constitutional interpretation and how to read cases. The course then uses a case study approach to examine the Court’s decisions in three areas: free speech, religious rights and privacy. Special emphasis is placed on current debates and controversies. Offered spring.

POL 325. THE PRESIDENCY 4 sh
A study of the contemporary presidency emphasizing the organization of the office, its relationship to other structures in American politics and its role in the policy-making process. Offered fall every other year.

POL 326. THE CONGRESS 4 sh
Topics of study cover congressional elections, the policy-making process in Congress, party leadership and the committee system, the relationship between the Congress and the presidency, interest groups and the executive branch. Offered fall every other year.

POL 327. JUDICIAL PROCESS 4 sh
The study of the U.S. Supreme Court, the federal court system, state courts and how judicial decisions are made. An examination of legal procedures is accompanied by case studies, such as the O.J. Simpson and Duke Lacrosse Team cases. Offered spring.

POL 329. POLITICAL BEHAVIOR 4 sh
This course focuses on political life from a micro-perspective by examining how political attitudes and behaviors are learned and how they affect our political choices, especially in regard to political socialization and electoral behavior. Offered fall.

POL 341. INTERNATIONAL ORGANIZATIONS 4 sh
This course focuses on the creation, enforcement, and political implications of a variety of international organizations ranging from the United Nations to regional organizations and NGOs. Offered every other year.
POL 342. U.S. FOREIGN POLICY
4 sh
This course covers the foreign relations, foreign policy process and international politics of the United States. Offered every other year.

POL 343. INTERNATIONAL LAW
4 sh
This course focuses on the interaction between international law and international political patterns. It examines topics such as international criminal, trade, war crimes and environmental law as well as institutions, including The World Court. Offered every other year.

POL 344. INTERNATIONAL ENVIRONMENTAL POLICY
4 sh
This course addresses environmental issues that cross national boundaries, such as global warming, natural resource scarcity, waste disposal and issues of international trade and the environment. It is useful for students of international studies and environmental studies as well as political science.

POL 345. INTERNATIONAL TERRORISM
4 sh
This course examines the genesis, typology and impact of international terrorism on nation states and the international community. It also explores the variety of approaches used, especially by the United States, to deal with international terrorism.

POL 346. INTERNATIONAL SECURITY
4 sh
This course examines the patterns of military and political interstate relationships from the Cold War to the present, with attention to the major institutions involved in decision making, military alliances and issues such as nuclear proliferation. It focuses on the causes, effects and various strategies for approaching problems related to war and peace that impact millions of people around the world. Offered fall.

POL 348. INTERNATIONAL HUMAN RIGHTS
4 sh
This course explores the philosophical background of human rights and the contemporary practice of promoting human rights across the globe. It examines international law and war crimes tribunals, looks at different institutions and NGOs that address human rights abuses, and assesses the criteria for judging humanitarian intervention. Case studies utilized may include poverty, global warming, torture, female mutilation and genocide. Offered every other year.

POL 358. MEDIA AND WAR
4 sh
A comparative examination of the relationship between governments and media organizations during wartime periods in a variety of international contexts, such as the U.S. during the Vietnam war and the Soviet Union and its war in Afghanistan. Topics such as media ownership, government efforts to influence media content, government rhetoric and propaganda, and the impact of media reports on public opinion are explored. Offered every other year.

POL 359. POLITICAL COMMUNICATIONS
4 sh
This examination of political communications processes uses a comparative perspective and emphasizes the role of media in the U.S., Europe, Eurasia and developing countries.

POL 362. INDIA AND PAKISTAN
4 sh
This course analyzes political development and international relations in South Asia, with a focus on India and Pakistan, from the late colonial period to the present. It seeks to understand the foundations and evolution of democracy in India, the challenges that democracy has confronted in Pakistan, and the roots of the longstanding rivalry between India and Pakistan over Kashmir. Other topics include inter-regional relationships with Afghanistan, Bangladesh, Nepal and Sri Lanka. Offered spring.

POL 363. POLITICS OF ASIA
4 sh
This exploration of the politics of Asia after World War II analyzes political and economic processes in the cases of Japan, China, India and newly industrializing countries.

POL 364. POLITICS OF EUROPE
4 sh
This course explores the politics of Eastern and Western Europe since World War I.
POL 365. **THE POLITICS OF ISLAMIC FUNDAMENTALISM IN THE MIDDLE EAST** 4 sh
This course will critically examine and analyze the resurgence of political Islam, or what some refer to as Islamic fundamentalism, since the 1970s. Topics of study include, but are not limited to, Islamic fundamentalist attitudes towards modernity, democracy, human rights, civil society, gender equality and political ethics. Emphasis will be placed on political actors, groups and movements primarily within the Arab Middle East. No prerequisites.

POL 366. **MIDDLE EAST POLITICS** 4 sh
This course studies Middle Eastern political dynamics and institutions, contemporary issues and problems of selected Middle Eastern and North African countries.

POL 367. **POLITICS OF AFRICA** 4 sh
This course focuses on nation building and major factors influencing contemporary politics in selected African states. It emphasizes the legacy of colonialism/independence struggles, traditional loyalties, the political/social/economic origins of conflict/coalitions/coups, political participation, institutionalization/control, the destabilizing influences of class/ethnic/elitist/racial differences and African states in the world order.

POL 368. **LATIN AMERICAN POLITICS** 4 sh
This course studies the political dynamics, governmental structures and contemporary issues of selected countries of Latin America.

POL 369. **US-LATIN AMERICAN RELATIONS** 4 sh
This course starts with an examination of the relations between the U.S. and Latin America from an historical perspective during the last two centuries. It emphasizes U.S. interventions during the contentious Cold War period, and contemporary issues such as migration conflicts, drug wars, human rights and the rise of alternative sources of power in the regional system. Offered every other year.

POL 376. **WASHINGTON CENTER SEMINAR** 1-4 sh
Students learn first-hand from speakers, on-site visits and other experiential opportunities in Washington, D.C., and other locations through the Washington Center. Course requirements include readings, writing assignments and collaborative work dealing with a wide variety of topics. Prerequisite: Permission of department. Offered every semester.

POL 392. **TOPICS IN POLITICAL SCIENCE** 4 sh

POL 461. **SENIOR SEMINAR IN POLITICAL SCIENCE** 4 sh
The capstone experience for senior Political Science majors involves close review of the discipline’s conceptual approaches to the study of political issues, discussion and development of research strategies. Students must also prepare a work of original scholarship. Prerequisite: Senior majors only. Offered fall and spring.

POL 481. **INTERNSHIP IN POLITICAL SCIENCE** 1-16 sh
Work experience in a partisan, nonprofit, business, governmental or legal setting requires students to establish experiential goals and to reflect on the learning experience. Offered on an individual basis when suitable opportunities can be arranged.

POL 485. **WASHINGTON INTERNSHIP IN POLITICAL SCIENCE** 1-12 sh
Work experience in a partisan, nonprofit, business, governmental or legal setting in the Washington, D.C., area, requires students to establish experiential goals and reflect on the learning experience. Offered on an individual basis when suitable opportunities can be arranged.

POL 491. **INDEPENDENT STUDY** 1-4 sh

POL 492. **TOPICS IN POLITICAL SCIENCE** 4 sh

POL 499. **RESEARCH** 1-4 sh
This course is an opportunity for students to undertake an empirical or theoretical study of a topic in political science in collaboration with a departmental faculty member. Research projects may include a review of research literature, developing a research design,
data collection and analysis, and a presentation or report when the study is completed. Prerequisite: Permission of instructor. A research proposal form completed by the student in conjunction with the faculty member is required for registration. Students may register for one-four hours of credit per semester and may register for more than one semester of research for a total of eight hours of research credit toward the major. Students must have a minimum 2.5 GPA and have completed 28 semester hours of undergraduate work.

Professional Writing Studies

Coordinator: Assistant Professor Pope-Ruark

Professional Writing Studies is an interdisciplinary minor designed for students across the disciplines who would like to add to their majors focused study and practice in applied writing. This minor is intended not only to strengthen the writing instruction offered to students across the disciplines, but also to responsibly prepare students for the steadily increasing numbers of specialized professional, technical and medical writing positions in government agencies, industry and nonprofit organizations.

The minor is broad and flexible enough that students can formulate course sequences appealing to their specific interests. It is also structured tightly enough to effectively guide students’ curricular decisions.

A required introductory course prepares students to see writing broadly as a complex, highly situated form of social action and production. Three required practice courses engage students in hands-on projects where they learn to apply advanced practical writing skills within specific contexts. Finally, a variety of internship experiences are possible in which students have a chance to practice what they have learned in actual disciplinary or professional contexts.

The minor requires a minimum of 20 semester hours. Practice/applied courses must be chosen from at least two disciplines.

A minor in Professional Writing Studies requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 215</td>
<td>Introduction to Professional Writing and Rhetoric</td>
<td>4 sh*</td>
</tr>
<tr>
<td>ART 260</td>
<td>Introduction to Digital Art I</td>
<td></td>
</tr>
<tr>
<td>ART 360</td>
<td>Static Imaging</td>
<td></td>
</tr>
<tr>
<td>ART 361</td>
<td>Web Art</td>
<td></td>
</tr>
<tr>
<td>ART 362</td>
<td>Kinetic Imaging</td>
<td></td>
</tr>
<tr>
<td>BUS 202</td>
<td>Business Communications</td>
<td></td>
</tr>
<tr>
<td>COM 232</td>
<td>Public Relations and Civic Responsibility</td>
<td></td>
</tr>
<tr>
<td>COM 314</td>
<td>Writing for Broadcast and New Media</td>
<td></td>
</tr>
<tr>
<td>COM 322</td>
<td>Corporate Publishing</td>
<td></td>
</tr>
<tr>
<td>COM 350</td>
<td>Web Publishing</td>
<td></td>
</tr>
<tr>
<td>COM 368</td>
<td>Magazine Publishing</td>
<td></td>
</tr>
<tr>
<td>ENG 211</td>
<td>Style and Editing</td>
<td></td>
</tr>
<tr>
<td>ENG 212</td>
<td>Multimedia Rhetorics</td>
<td></td>
</tr>
<tr>
<td>ENG 219</td>
<td>Writing Studies Survey</td>
<td></td>
</tr>
<tr>
<td>ENG 304</td>
<td>Understanding Rhetoric</td>
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</tr>
</tbody>
</table>
Four semester hours of one disciplinary internship course

The course must be carefully designed as a professional writing internship and approved by the program coordinator. Most ENG 381 or 481 courses can be designed for this purpose and approved.

TOTAL 20 sh

*Note: With approval of the coordinator, ENG 304, Understanding Rhetoric, may be substituted for ENG 215.

Psychology

Chair: Professor G. Smith

Professors: Fromson, Green, Levesque, Vandermaas-Peeler

Associate Professors: Darby, Gendle, King, Leupold, McClearn, Wilmshurst

Assistant Professors: Allison, Epting, Longmire-Avital, Overman, Scott

The psychology major at Elon presents the principles, methods and research findings of the field of psychology. Students in the major learn and practice sound research methods and are given many opportunities for exploring the breadth of the content areas in psychology. In each psychology course, students are involved in writing and speaking in the discipline. Interested students may engage in a variety of applied internship experiences and/or collaborative research with departmental faculty.

Students with a bachelor's degree in psychology have many career options. Some students enter fields such as law enforcement, court counseling, daycare, group home counseling, business and entry level positions in mental health. Others go on to graduate school in a variety of programs including clinical, counseling or school psychology, social work, special education, law and many others. Psychology majors receive both a liberal arts education and practice in the skills of research, professional writing and speaking, and are therefore prepared for a variety of careers.

A major in Psychology requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 111</td>
<td>Introduction to Psychology</td>
<td>4 sh</td>
</tr>
<tr>
<td>PSY 240</td>
<td>Lifespan Development</td>
<td>4 sh</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Social Psychology</td>
<td>4 sh</td>
</tr>
<tr>
<td>PSY 242</td>
<td>Cognitive Psychology</td>
<td>4 sh</td>
</tr>
<tr>
<td>PSY 243</td>
<td>Behavioral Neuroscience</td>
<td>4 sh</td>
</tr>
<tr>
<td>PSY 302</td>
<td>Experimental Research Methods and Statistics</td>
<td>4 sh</td>
</tr>
<tr>
<td>PSY 303</td>
<td>Non-experimental Research Methods and Statistics</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Two courses selected from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 331</td>
<td>Psychological Testing</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
PSY 333 Abnormal Psychology  
PSY 343 Personality Psychology  
PSY 345 Psychology of Learning  
PSY 350-54 Special Topics in Behavioral Neuroscience  
PSY 355 Sensation and Perception  
PSY 356 Health Psychology  
PSY 382 Child Psychopathology  
Any PSY course numbered 383-390  

One course selected from the following:  
- PSY 460 Empirical Research Seminar  
- PSY 461 Senior Seminar  

Eight additional semester hours from PSY courses  

**TOTAL**  
48 sh

**Double Major.** The psychology department waives four hours of electives (from the 8 additional semester hours in psychology) for any student completing a double major. For example, a student double-majoring in psychology and exercise science would need a total of 44 PSY hours instead of the normal 48.

**A minor in Psychology requires the following courses:**  
- PSY 111 Introduction to Psychology  

One course selected from the following:  
- PSY 210 Psychology in the Schools  
PSY 314 Psychology and Law  
PSY 321 Educational Psychology  
PSY 331 Psychological Testing  
PSY 333 Abnormal Psychology  
PSY 356 Health Psychology  
PSY 363 Industrial and Organizational Psychology  

Eight semester hours from PSY courses  

**TOTAL**  
20 sh

**PSY 111. INTRODUCTION TO PSYCHOLOGY**  
General psychology surveys central topics in the field, including research methodology, learning and memory processes, social psychology, psychological disorders and personality. Offered fall and spring.
PSY 210.  PSYCHOLOGY IN THE SCHOOLS  4 sh
This course will appeal to a wide variety of future practitioners (mental health counselors, teachers, school psychologists) who are eager to work with children in a school setting and who want to learn how to apply psychological principles to assist in the identification of underlying problems and the development of intervention plans.

PSY 215.  THE PSYCHOLOGY OF PERSONAL RELATIONSHIPS  4 sh
The purpose of this course is to investigate personal relationships from various viewpoints of psychology (e.g., social, cognitive and biopsychological). Interactions with family members and friends will be discussed, but the emphasis will be placed on the initiation, maintenance and termination of romantic relationships.

PSY 225.  MENTAL ILLNESS AND FILM  4 sh
Hollywood depictions of mental illness have contributed significantly to the ideas and images many individuals hold about mental illness. Students will look at some of the major types of mental illnesses (e.g., depression, sexual disorders, schizophrenia, antisocial personality disorder) and examine how they have been portrayed, for better and worse, in popular films.

PSY 240.  LIFESPAN DEVELOPMENT  4 sh
An exploration of human development across the entire lifespan includes consideration of cognitive, social and emotional development as a complex interaction between individuals and their social and cultural environments. Prerequisite: PSY 111. Offered fall and spring.

PSY 241.  SOCIAL PSYCHOLOGY  4 sh
Topics in social psychology explore how people think about, influence and relate to one another. Specific topics include affiliation, aggression, altruism, attitude formation and change, attribution, compliance, conformity and persuasion. Prerequisite: PSY 111. Offered fall and spring.

PSY 242.  COGNITIVE PSYCHOLOGY  4 sh
Cognitive psychology studies how humans represent and process information about the environment in their role as thinkers, planners, language users and problem solvers. Students learn the fundamentals of cognitive processes, including attention, perception, imagery, long term and working memory, language, and reasoning and decision making. Prerequisites: PSY 111. Offered fall and spring.

PSY 243.  BEHAVIORAL NEUROSCIENCE  4 sh
This course provides fundamental information in the areas of neurophysiology, neuro-chemistry, neuroanatomy, cognitive neuroscience, clinical neuroscience and behavioral genetics. The course explores the biological foundations of psychological processes such as cognitive development, learning and memory, movement and sleep. Prerequisite: PSY 111, BIO 111 or BIO 162. Offered fall and spring.

PSY 245.  EARLY CHILDHOOD DEVELOPMENT  4 sh
Recent research has led to a new appreciation of the importance of early life experiences on child development. This course examines the power of the inseparable and highly interactive influences of genetics and environment on the complex emotions, cognitive abilities and essential social skills that develop during the early years of life. The implications of this new understanding of early childhood for families, communities, policy makers and service providers who strive to increase the odds of favorable development are explored.

PSY 302.  EXPERIMENTAL RESEARCH METHODS AND STATISTICS  4 sh
Students learn how to design, review and analyze experimental psychological research. The course focuses on developing research questions, answering them using experimental research designs and complementary data analysis techniques, and the basics of writing research reports. Prerequisites: PSY 111; MTH 112 or MTH/STS 212. Prerequisites or Corequisites: PSY 240, 241, 242 or 243; psychology major status. Offered fall and spring.
PSY 303. NONEXPERIMENTAL RESEARCH METHODS AND STATISTICS 4 sh
Students learn how to design, review and analyze nonexperimental psychological research. The course focuses on developing research questions, answering them using nonexperimental research designs and complementary data analysis techniques, and the basics of writing research reports. Prerequisites: PSY 111; MTH 112. Prerequisites or Corequisites: PSY 240, 241, 242 or 243; psychology major status. Offered fall and spring.

PSY 310. MEMORY AND MEMORY DISORDERS 4 sh
This course is about the human ability, or inability, to acquire and retain information, to recall it when needed, and to recognize it when it is seen or heard again (i.e., encoding, storage, retrieval). The course is presented from the perspectives of cognitive neuroscience and clinical neuropsychology and will examine theories and research techniques involved in the study of memory. Topics to be covered include amnesia, false memory, emotional memory, individual differences in memory and memory disorders related to brain damage, aging, diseases and psychiatric disorders. Prerequisite: PSY 111.

PSY 311. PSYCHOLOGY OF LANGUAGE 4 sh
Students learn some of the basic principles and issues in psycholinguistics and the psychology of language. Different psychological approaches (cognitive, psycholinguistic, behavioral) are considered in understanding factors involved in acquisition, production, comprehension and maintenance of language. How language functions for individuals and cultures, and the broader relationship between language, thought and reality are also explored. Prerequisite: PSY 111.

PSY 314. PSYCHOLOGY AND LAW 4 sh
This course explores psychological research on eyewitness testimony evidence, interviews and interrogations, and jury procedures with particular emphasis on memory, judgments and decision making. Prerequisite: PSY 111.

PSY 315. PSYCHOLOGY OF SEX AND GENDER 4 sh
This course focuses on the psychology of sex and gender from a feminist perspective and is organized around four themes: gender as a social construction, the importance of language and the power to name, class and cultural diversity, and knowledge as a source of social change.

PSY 321. EDUCATIONAL PSYCHOLOGY 4 sh
Students gain an overview of research and theory in educational psychology and explore their applications in teaching and learning. Prerequisite: PSY 111 or EDU 211 or SOC 243. Offered fall and spring.

PSY 331. PSYCHOLOGICAL TESTING 4 sh
This course addresses the reliable and valid measurement of psychological constructs such as intelligence, personality and vocational interest. In addition to exploring basic assessment principles, first-hand experience with several psychological tests will be provided, and the ways in which such test information is used and misused in making decisions will be examined. Prerequisites: PSY 111 and one of the following statistics-based courses: PSY 302, 303, ECO 203, MTH 112, MTH/STS 212, ESS 295, HSS 285, POL 220 or SOC 216.

PSY 333. ABNORMAL PSYCHOLOGY 4 sh
In this overview of major psychological disturbances (anxiety, mood, personality, sexual and schizophrenic disorders), students examine the role of different theories, diagnostic tests and procedures in understanding illness and learn the basics of therapeutic interventions. Prerequisites: PSY 111 and PSY 240, 241, 242 or 243.

PSY 343. PERSONALITY PSYCHOLOGY 4 sh
This course covers major modern perspectives in personality psychology including dispositional, biological, psychodynamic, self and social-cognitive theories. Students are also introduced to issues and techniques of personality testing and assessment. Prerequisites: PSY 111 and one of the following: PSY 302, 303, ESS 295, HSS 285, POL 220, SOC 216. Offered fall or spring.
PSY 345. PSYCHOLOGY OF LEARNING 4 sh
This course focuses on the fundamental principles of behavior and learning. Topics considered may include reinforcement, punishment, extinction, generalization and discrimination, schedules of reinforcement, concept formation, and classical conditioning. Prerequisites: PSY 111 and one of the following: PSY 302, PSY 303, ESS 295, HSS 285, POL 220 or SOC 216. Offered fall and spring.

PSY 350-54. SPECIAL TOPICS IN BEHAVIORAL NEUROSCIENCE 4 sh
This advanced-level class provides an in-depth exploration and discussion of specific topic areas in behavioral neuroscience. Course topics will vary based on instructor, and will typically be in one of the following general areas: neuropharmacology and drug action, learning and neural plasticity, clinical neuroscience or the neurobiology of criminal behavior. Prerequisite: PSY 243 or BIO 162.

PSY 355. SENSATION AND PERCEPTION 4 sh
Study in human perception includes research and theory on the structural and functional characteristics of various perceptual systems, on perceptual phenomena such as depth and color perception and on other related topics. Prerequisite: PSY 302 or 303.

PSY 356. HEALTH PSYCHOLOGY 4 sh
This course focuses upon the role of psychology in a variety of medical issues: health-enhancing and health-compromising behaviors, stress and illness, patient-practitioner relationships, pain and other chronic conditions. The growing field of health psychology is explored as both an area of research and a clinical profession. Prerequisite: PSY 111 and one of the following: PSY 302, 303, ESS 295, HSS 285, POL 220 or SOC 216.

PSY 357. CRIMINAL BEHAVIOR 4 sh
This course focuses primarily on the causes of crime, the criminal mind and the resulting social and personal costs of crime. Also addressed are various aspects of the criminal justice system, including the relevance of psychology to courtroom proceedings. Although many types of crime are explored, emphasis is placed on violent crime.

PSY 361. ANIMAL BEHAVIOR 4 sh
An investigation of animal behavior takes into account physiology, development, evolution and adaptation. Studies emphasize specialized structures and abilities which may or may not be present in humans and which confer selective advantages upon their possessors. Prerequisite: PSY 111.

PSY 363. INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY 4 sh
Psychological applications in the workplace are the focus of this course. Topics include personnel selection, leadership and motivation, job satisfaction and work performance. Prerequisite: PSY 111.

PSY 366. PSYCHOLOGY IN CULTURAL CONTEXT 4 sh
Issues in the related fields of cultural and cross-cultural psychology are considered in depth as students investigate basic psychological processes (e.g., motivation, cognition and emotion) in the context of how cultural world views and implicit value assumptions influence the development and functioning of human behavior and social interaction. Prerequisite: PSY 111.

PSY 367. PSYCHOLOGY PERSPECTIVES ON HUMAN SEXUALITY 4 sh
This course involves the application of psychological theories and research to the area of sexual behavior. Emphasis will be placed on research techniques used to study sexuality, theories of attraction and love, sexuality across the lifespan, and variations in sexual response, attitudes, orientations and practices. Counts toward the women’s/gender studies minor. Prerequisite: PSY 111.

PSY 368. THE PSYCHOLOGY OF LEADERSHIP 4 sh
This course focuses on the major theories behind leadership behaviors and how they relate to organizational functioning and performance. More specifically, the course primarily covers the organizational level of leadership, where leaders’ behaviors are directed at a
larger group of individuals as a means of helping them achieve organizational, team and personal goals. In addition to theoretical background, empirical studies related to leadership concepts will be covered, as will be their practical application. Complementing these organizational-level topics is a deep focus on students' own personal leadership styles and intentions so that insight might be gained as to how to develop as optimally effective leaders. Prerequisite: LED 210, PSY 111, BUS 303 or MGT 323.

**PSY 371. SPECIAL TOPICS IN PSYCHOLOGY 4 sh**

**PSY 382. CHILD PSYCHOPATHOLOGY 4 sh**

This course examines abnormal behavior from a developmental perspective. Students will learn about contemporary issues in the diagnosis, assessment and treatment of a wide variety of problems and disorders evident in children and youth, such as anxiety, depression, attention, learning and conduct/behavior. Prerequisites: PSY 240.

**PSY 460. EMPIRICAL RESEARCH SEMINAR 4 sh**

In this capstone course, students read primary sources to identify and critically evaluate the major theoretical and empirical foundations of one topic area in the field of psychology. With faculty supervision, students devise, conduct and report an original empirical investigation of a question related to the selected area of concern. Students present their work orally as well as in a well developed, integrated APA-style manuscript. Prerequisites: PSY 302, 303 and senior status in the major. Offered fall and spring.

**PSY 461. SENIOR SEMINAR 4 sh**

In this capstone course, students will read primary sources and identify and critically evaluate theoretical issues and empirical findings of one topic area in the field of psychology. With faculty supervision, students will develop and present (in both written and oral formats) a thesis-level integrative literature review manuscript. Prerequisites: PSY 302, 303 and senior status in the major. Offered fall and spring.

**PSY 481. INTERNSHIP IN PSYCHOLOGY 1-4 sh**

Upper-level majors apply psychological theories and techniques to actual experiences in the field. Maximum four semester hours toward major. Prerequisite: Majors with faculty approval.

**PSY 491. INDEPENDENT STUDY 1-4 sh**

Prerequisites: Junior/senior status and permission of the instructor.

**PSY 499. RESEARCH 1-4 sh**

In collaboration with a psychology faculty member, students undertake an empirical or theoretical study of a topic in psychology. Research projects may include a review of the relevant research literature, data collection and analysis, and a presentation or report when the study is completed. Prerequisites: PSY 111 and permission of instructor. A research proposal form completed by the student in conjunction with the faculty member is required for registration. Students may register for one to four hours of credit per semester and may register for more than one semester of research for a total of eight hours of research credit toward the major. Offered fall, winter and spring.

**Public Administration**

Chair, Department of Political Science and Public Administration: Associate Professor Spray
Professor: Taylor
Associate Professors: Bacot, Morgan
Lecturer: Short
Adjuncts: Colbert, Harman

The Public Administration major prepares students interested in pursuing graduate education and careers in governmental or nonprofit service agencies. Courses in the major include the study of the management functions in public agencies, governmental structures and
processes, techniques used in the evaluation process and a variety of public policies. Field experiences including internships and course-linked service learning are emphasized within the major. Students develop technical competencies and theoretical understandings from courses relevant to public administration and from other disciplines as well.

A major in Public Administration requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUB 231</td>
<td>Public Administration</td>
<td>4 sh</td>
</tr>
<tr>
<td>PUB 328</td>
<td>Public Policy</td>
<td>4 sh</td>
</tr>
<tr>
<td>PUB 335</td>
<td>Ethics in the Public Sector</td>
<td>4 sh</td>
</tr>
<tr>
<td>PUB 431</td>
<td>Policy Analysis and Program Evaluation</td>
<td>4 sh</td>
</tr>
<tr>
<td>PUB 461</td>
<td>Seminar in Public Administration</td>
<td>4 sh</td>
</tr>
<tr>
<td>POL 220</td>
<td>Research Methods in Political Science</td>
<td>4 sh</td>
</tr>
<tr>
<td>POL 222</td>
<td>State and Local Government and Politics</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Twelve hours selected from the following courses: 12 sh

- ACC 201 Principles of Financial Accounting
- BUS 303 Introduction to Managing
- ECO 111 Principles of Economics
- POL 325 The Presidency
- POL 326 The Congress
- PUB 332 Comparative Public Policy
- PUB 334 GIS Applications for Administration and Planning
- PUB 433 Urban Politics

Any PUB course 4 sh  

TOTAL 44 sh

It is strongly recommended that public administration majors, in consultation with their advisors, select a topical concentration of at least 12 semester hours at the 300-level and above. Concentration courses will be chosen from among the 16 elective hours. No more than eight internship hours may be applied to the major. Students considering graduate school in public administration should take additional courses in accounting, economics and business administration.

A minor in Public Administration requires the following courses:

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</tr>
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<td>PUB 335</td>
<td>Ethics in Public Sector</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Eight semester hours selected from the elective list of the major.
No more than four hours may be selected from POL courses. 8 sh

TOTAL 20 sh

PUB 231. PUBLIC ADMINISTRATION 4 sh

This course introduces the student to the complexities of administering government activities and emphasizes the basic principles of organizations, decision making, fiscal management, personnel management and other forms of action in the public sector. Offered fall and spring.
This study of public policy making emphasizes policy content and focuses on the stages and options in the process, especially the complex relationships between the branches and levels of government within the structure of federalism. Students trace the development of selected public policy positions and focus on options available to contemporary decision makers. Offered fall and spring.

Focusing primarily on various countries in Europe and Eurasia with comparisons to the United States, this course examines the differences in the formation and implementation of a variety of public policies. It also explores differences in political culture, economic structure, political institutions and national approaches to domestic social policies, and how those differences impact the policy process and policy content.

Advanced study in areas of the urban politics field centers on varying topics to be decided by the instructor. Selections might include urban management, urban public policy, urban problems, etc.

Geographic information systems (GIS) is an indispensable tool in public policy research, analysis and implementation. Students will develop expertise in the use of GIS software through the use of case studies, specific research projects and practical applications of this new technology in both the public and nonprofit sectors. Offered every other year.

The course seeks to develop awareness of the responsibilities associated with discretionary power; to develop an understanding of the ethical standards, values and virtues associated with civil service; and to build skills in using moral imagination and ethical reasoning to assess and deal effectively with ethical dilemmas that arise in public service.

This course explores the theoretical legal foundations, law enforcement practices, court systems, sentencing practices and innovative methods of punishment in variety of settings, such as Europe, Asia, the transitional legal systems of the former Soviet Union states, Islamic Systems and the American legal system. Comparison between these systems will focus on the sources of law, procedures for resolving legal disputes and the principles of civil and criminal justice in each system. Offered every other year.

Two aspects of the public policy process are covered in this course. Policy analysis focuses on the formulation stage of the policy process and attempts to isolate both the intended and many unintended effects of public policy. Program evaluation determines the degree to which a program is meeting its objectives and considers problems and side effects. Prerequisite: POL 220 or permission of instructor. Offered spring.

The capstone experience for senior public administration majors involves review of the discipline’s conceptual approaches and discussion and development of research strategies. Students must present a work of original scholarship. Prerequisite: Senior majors only. Offered fall.

Work experience in a nonprofit, business, governmental or legal setting requires students to establish experiential goals and to reflect on the learning experience. Offered on an individual basis when suitable opportunities can be arranged.

Work experience in a partisan, nonprofit, business, governmental or legal setting in the Washington, D.C., area requires students to establish experiential goals and reflect on the
learning experience. Offered on an individual basis when suitable opportunities can be arranged.

PUB 491. INDEPENDENT STUDY 1-4 sh

PUB 499. RESEARCH 1-4 sh

This course is an opportunity for students to undertake an empirical or theoretical study of a topic in public administration in collaboration with a departmental faculty member. Research projects may include a review of research literature, developing a research design, data collection and analysis, and a presentation or report when the study is completed. Prerequisite: Permission of instructor. A research proposal form completed by the student in conjunction with the faculty member is required for registration. Students may register for one to four hours of credit per semester and may register for more than one semester of research for a total of eight hours of research credit toward the major. Students must have a minimum 2.5 GPA and have completed 28 semester hours of undergraduate work.

Public Health Studies

Coordinator: Assistant Professor Sullivan

The Public Health Studies major prepares students with the knowledge and skills to address the public health challenges of the 21st century. Students apply interdisciplinary approaches and the population health framework to the analysis of the determinants of health and disease and to interventions to eliminate or control diseases and other health impairing conditions. The pursuit of health equity at the local, national, and global levels is emphasized. Students are prepared to enter the workplace in public health settings and/or continue their education in the field of public health or related fields.

A major in Public Health Studies requires the following courses:

CORE courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHS 201</td>
<td>Introduction to Public Health</td>
</tr>
<tr>
<td>STS 212</td>
<td>Statistics in Application</td>
</tr>
<tr>
<td>PHS 202</td>
<td>Research Methods in Public Health</td>
</tr>
<tr>
<td>PHS 301</td>
<td>Introduction to Epidemiology</td>
</tr>
<tr>
<td>PHS 302</td>
<td>Global Health</td>
</tr>
<tr>
<td>PHS 381</td>
<td>Practicum</td>
</tr>
<tr>
<td>PHS 461</td>
<td>Senior Seminar</td>
</tr>
</tbody>
</table>

CORE TOTAL 28 sh

FOCAL AREAS. Choose 16 hours from one of the following focal areas: 16 sh

Socio-cultural context of health and illness

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 324</td>
<td>Culture and Sex</td>
</tr>
<tr>
<td>ANT 325</td>
<td>Culture, Health and Illness</td>
</tr>
<tr>
<td>ESS 333</td>
<td>Exercise Psychology</td>
</tr>
<tr>
<td>GEO/ENS 250</td>
<td>Introduction to Geographical Information Systems</td>
</tr>
<tr>
<td>GEO 360</td>
<td>Advanced Geographical Information Systems</td>
</tr>
<tr>
<td>GEO 346</td>
<td>Natural Disasters</td>
</tr>
<tr>
<td>HSS 213</td>
<td>Working with Groups and Communities</td>
</tr>
</tbody>
</table>
HSS  311  Policy and Social Inequality
HSS  350  Global Violence against Women
HSS  351  International Human Services
HSS  411  Designing and Assessing Programs
PSY  356  Health Psychology
PUB  231  Public Administration
PUB  431  Policy Analysis and Program Evaluation
PUB  335  Ethics in the Public Sector

**Biological aspects of health and illness**

Choose one course from the following list:

BIO 112/114  Introduction to Population Biology with Lab
BIO 162  Human Physiology with Lab

Choose three courses from the following list:

BIO 111/113  Introduction to Cell Biology with Lab
BIO 161  Human Anatomy
BIO 245/246  Principles of Genetics with Lab
BIO 262  Experimental Design
BIO 324  Toxicology
ENS 111/113  Introduction of Environmental Science with Lab
ENS 220  Organic Gardening and Sustainable Food Production
ESS 322  Epidemiology of Physical Activity
ESS 422  Physiology of Exercise
ESS 424  Applied Exercise Physiology
CHM 305  Environmental Chemistry with Lab

**Electives**

Choose one course from the following list: 4 sh

ECO 317  Gender and Development
ECO 361  Health Economics
ECO 440  Urban Economics and Planning
COM 331  Environmental Communications
GST 308  Healthcare Strategies in the 21st Century
GST 325  Substance Abuse and Human Behavior
GST 346  Childbirth
GST 376  Global Health Disparities
GST 406  Perspectives on Women’s Health
PEH 324  Nutrition
PHL 330  Economic Justice

Other courses approved by the coordinator

**TOTAL** 48 sh
A minor in Public Health Studies requires the following courses:

PHS 201 Introduction to Public Health 4 sh
PHS 301 Introduction to Epidemiology 4 sh

Choose twelve hours from the focal areas, the list of electives or the following courses. Electives must come from at least two different disciplines. 12 sh

PHS 302 Global Health
PHS 381 Public Health Practicum

TOTAL 20 sh

PHS 201. INTRODUCTION TO PUBLIC HEALTH 4 sh
This course is an introductory survey of public health issues and opportunities. Students will gain a thorough understanding of public health, its influence on the health of the world, environmental and behavioral influences on the health of the public in the United States, and the broad scope of career options for professionals in the field of public health. This course includes a historical context for a discussion of current trends, emerging health issues and global practices. Prerequisite: Sophomore standing. Offered fall and spring.

PHS 202. RESEARCH METHODS IN PUBLIC HEALTH 4 sh
This course examines the methods used to conduct basic public health research. Emphasis is placed on the use of research in practice-related settings indicative of public health professionals. The course acquaints students with a basic theoretical understanding of research, practical aspects of conducting research, and ethical and diversity considerations inherent in the proper implementation of research. Additional emphasis is placed on research to facilitate social change. Prerequisite PHS 201. Offered spring.

PHS 301. INTRODUCTION TO EPIDEMIOLOGY 4 sh
Epidemiology is known as the science of public health. This course explores the basic principles and methods of the epidemiological approach in the appraisal of population health. Emphasis is placed on understanding the ways in which variation in disease occurrence is documented and how that variation is studied to understand causes of disease and the development of appropriate interventions. Prerequisites: PHS 201 and MTH 112 or 212. Offered spring.

PHS 302. GLOBAL HEALTH 4 sh
The course will introduce students to key global health issues. Students will gain an understanding of contemporary global health problems, their determinants, distribution and prevention/response strategies. Particular attention will be paid to the links between global health and social and economic development. This course focuses on developing countries and on the health of the poor. Offered spring.

PHS 381. PRACTICUM 4 sh
Three weeks of direct practice and observation in a public health organization provide the opportunity for students to apply and conceptualize various aspects of health care delivery using this approach. Student learning will be guided and enhanced through weekly seminars, written assignments, and faculty site visits. Prerequisites: PHS 201, status as a declared Public Health Studies major or minor, and submission and approval of the application for practicum. Offered winter or first summer session.

PHS 461. SENIOR SEMINAR IN PUBLIC HEALTH 4 sh
In this capstone course, students will explore a current community public health issue. The class will take part on a community-based research experience designed to allow the application of research skills in a community context. Students will also research, write and present a scholarly paper. Prerequisite PHS 201 and PHS 202 and senior standing as a PHS major. Offered fall.
Religious Studies

Chair: Associate Professor Peters
Professor: Pugh
Associate Professor: Huber
Assistant Professors: Allocco, Pregill, Winfield
Lecturer: L. D. Russell

The study of religion invites students to think critically and deeply about how and why religion has been one of the most basic and universal aspects of human existence. Religious Studies students will recognize and comprehend the complexity and plurality of various world religions while also developing the critical and analytical skills necessary for assessing the functions and effects of religion in the world, becoming informed and effective global citizens.

The study of religion encompasses both developing an understanding of the belief systems of various world traditions as well as examining the ways in which religious traditions and practices are embedded within cultural, political, social and economic systems.

Religious Studies majors learn how to examine and engage religious phenomena, including issues of ethical and social responsibility, from a perspective of critical inquiry. This includes complicating and nuancing categories within the study of religion itself. Having developed strong research, analytic and writing skills, our majors are well-positioned to pursue careers in a wide variety of settings.

A major in Religious Studies requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 110</td>
<td>Religion in a Global Context</td>
<td>4 sh</td>
</tr>
<tr>
<td></td>
<td>Choose one course from the following: 4 sh</td>
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<tr>
<td>REL 201</td>
<td>Buddhist Traditions</td>
<td></td>
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<tr>
<td>REL 202</td>
<td>Hindu Traditions</td>
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<tr>
<td>REL 203</td>
<td>Islamic Traditions</td>
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<tr>
<td>REL 204</td>
<td>Christian Traditions</td>
<td></td>
</tr>
<tr>
<td>REL 205</td>
<td>Jewish Traditions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Hebrew Bible/Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>New Testament and Early Christian Literature</td>
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<tr>
<td>REL 292</td>
<td>Approaches to the Study of Religion</td>
<td>4 sh</td>
</tr>
<tr>
<td>REL 492</td>
<td>Senior Seminar</td>
<td>4 sh</td>
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<tr>
<td></td>
<td>An additional five courses, at least one 400 level topic seminar and not more than one additional 200-level course</td>
<td>20 sh</td>
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**TOTAL** 40 sh

A minor in Religious Studies requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 110</td>
<td>Religion in a Global Context</td>
<td>4 sh</td>
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<tr>
<td></td>
<td>Choose 16 hours REL electives with 12 hours at the 300-400 level</td>
<td>16 sh</td>
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</table>

**TOTAL** 20 sh
REL 110. RELIGION IN A GLOBAL CONTEXT 4 sh
This course introduces students to the study of religion in its cultural and historical contexts and aims to familiarize students with the multi-faceted role of religion in the world including examination of social, economic, historical, political and ethical factors.

REL 201. BUDDHIST TRADITIONS 4 sh
This course surveys the religious philosophy, practices and cultural developments of Buddhism from sixth century BCE India to present-day America. In the course of this study we examine Buddhist ideas about the nature of the self, existence, the basis of knowledge, the nature and path to salvation, psychology, ethics, aesthetics, gender, mind-body theory and non-violence issues.

REL 202. HINDU TRADITIONS 4 sh
This course introduces students to Hindu religious traditions and traces their development from Vedic times to the present day. Special emphasis will be placed on the diversity of theological orientations that characterize classical and contemporary Hinduism and are articulated across a broad spectrum of textual traditions, ritual expressions and social practices.

REL 203. ISLAMIC TRADITIONS 4 sh
This course introduces students to the scripture, doctrines and practices of Islam in the context of Islam’s spread from the Middle East to every region of the modern world. Particular attention will be paid to such issues as communal authority, the Islamic world’s relations with the West and the emergence of new Muslim communities in America and Europe in the 20th and 21st centuries.

REL 204. CHRISTIAN TRADITIONS 4 sh
This course will examine the life and thought of Christianity from its beginnings to the present day. Particular attention will be paid to the development of historical consciousness as well as to the impact that individuals can have on society and on history.

REL 205. JEWISH TRADITIONS 4 sh
This course traces the history of the Jewish community from its origins in the Israelite kingdom of antiquity to the present day, considering the evolution of its major doctrines and practices as well as the diversity of Jewish cultures throughout the world. Particular emphasis is placed on issues such as ethnicity, authority and relations with other communities.

REL 211. HEBREW BIBLE/OLD TESTAMENT 4 sh
This course introduces students to the critical study of the Hebrew scriptures. We examine the wider context of the ancient Near East in which the Bible developed; consider the impact of Israelite and early Jewish history on the emergence of the biblical canon; and explore the later reinterpretation of the Israelites’ religious legacy by Jews, Christians, Muslims and others.

REL 212. INTRODUCTION TO THE NEW TESTAMENT AND EARLY CHRISTIAN LITERATURE 4 sh
In this course students approach the writings of early Christianity as literary and rhetorical responses to ancient social, political and religious concerns. Students are introduced to the multi-faceted worlds surrounding the emerging Christian communities, as well as some of the realities created by these writings. In so doing, this course equips students with the tools for reading complex and ancient texts from a critical perspective.

REL 235. THE FUTURE OF HUMAN-ANIMAL RELATIONS 4 sh
This course examines the complex interrelationships between humans and animals, particularly as they are governed by religious and ethical concerns. We will consider the imaginative role animals play in the construction and expression of value systems, alongside more practical and concrete issues such as animal rights, the environment and the place of animals in human economies. Offered Winter Term.

REL 236. RELIGION AND RACING 4 sh
This course investigates the role of religion in the cultural origins, history and current state of stock car racing in American society. Topics include the relationship of religion and
culture, political ideologies of the NASCAR subculture, the role of women and minorities, the practices of religious ministries, and the religious implications of racing fans’ fascination with speed, danger and death. Offered Winter Term and summer.

**REL 237.**  
**RELIGION AND ROCK’N’ROLL**  
4 sh  
This course explores the history of rock music in the U.S., its cultural roots and current ramifications, and its implicit ideologies of utopia, revolution and anesthesia. Students will be expected to gain a basic understanding of the relationship of religion and culture, to be conversant with the role of popular music as a form of cultural self-identity and communication, and to understand key moments and movements in the evolution of rock music in the context of recent American history. Offered Winter Term and summer.

**REL 238.**  
**RELIGION AND FILM**  
4 sh  
This course looks at the importance of religious thought in world cinema. It considers a wide variety of films – from independent and foreign films to mainstream Hollywood blockbusters – that are either overtly religious or that have religious themes at their core. Background readings on film theory and select world religions will help students critically assess the form and content of each film. Offered Winter Term and summer.

**REL 292.**  
**APPROACHES TO THE STUDY OF RELIGION**  
4 sh  
This course is designed to orient students interested in religious studies to the broader landscape of the field. In the process, students will be challenged to examine and compare a variety of methodological approaches to the study of religion. This course will also train students in advanced research and writing in the field. Prerequisite: REL 110. Offered fall.

**REL 324.**  
**THEODICY: THE PROBLEM OF EVIL IN ANCIENT JEWISH AND CHRISTIAN LITERATURE**  
4 sh  
This course examines the ways in which ancient Jewish and Christian communities describe, explain and struggle with the issue of evil or “why bad things happen to good people.” Attention is given to different types of literary responses (prophetic, wisdom, historical, apocalyptic and martyrdom accounts). The course also attends to modern appropriations of these ancient traditions.

**REL 325.**  
**THE APOCALYPTIC IMAGINATION, ANCIENT AND MODERN**  
4 sh  
This course examines the enduring and widespread fascination with “apocalypse,” studying the ancient genre of apocalyptic literature (Jewish and Christian) as a response to specific historical and social concerns and modern interpretations of the ancient. While a variety of ancient and modern texts will be read within this course, special attention will be given to the Book of Revelation as a political-religious response to the Roman Empire.

**REL 326.**  
**SEX LIVES OF SAINTS: SEX, GENDER AND FAMILY IN EARLY CHRISTIANITY**  
4 sh  
Early Christian writings and traditions have exercised enormous influence upon modern views of gender (masculinity and femininity), sex and family. In this course we explore how these ideas are shaped in relation to the Jewish and Roman contexts of early Christianity. Students will engage a variety of ancient primary sources, including select New Testament writings (e.g. the letters of Paul, Revelation) and early Christian saints’ lives.

**REL 327.**  
**MESSIAHS, MARTYRS AND MEMORY**  
4 sh  
This course examines ancient Jewish and Christian messianic movements and the ways these traditions inspire the practice and idealization of martyrdom. In addition to exploring the ancient practice of memorializing through death, this course addresses some of the ways messianic figures and martyrs are remembered and memorialized in modern contexts.

**REL 332.**  
**RELIGION AND SCIENCE**  
4 sh  
This course exposes students to one of the perennial controversies of the Enlightenment - how do we create knowledge? Moving from antiquity to contemporary times this class will critically explore how both religion and science develop their models of understanding and why this has been such a contested area.

**REL 337.**  
**INTERROGATING GOD: HUMANITY’S SEARCH FOR MEANING**  
4 sh  
This course examines the extensive discussions that are taking place in the global community concerning humankind’s relationship to the sacred. From the rise of religious violence to fundamentalism and issues such as language, theodicy, postmodernity and the social
construction of religion, students will explore the field of theology and the human search for meaning.

**REL 339. GOD AND POLITICS**

This class explores the connection between political and religious communities. Some of the topics covered are the role of fundamentalism and its contemporary impact, the nature of historical consciousness and the mythic narratives it creates, and the separation of church and state. While rooted in American culture, this class will take a global perspective in order to understand such things as religious violence and the absolutist claims of some religious communities.

**REL 343. WOMEN, VIOLENCE AND RESISTANCE**

This course takes a serious look at a wide variety of forms of violence against women. Topics include domestic violence, prostitution, gang rape, economic violence, military violence, cultural violence and incest. Particular attention will be paid to religious justifications for violence against women and the role that faith communities have played in both condoning and resisting violence.

**REL 344. CHRISTIANITY AND SOCIAL JUSTICE**

This course will focus on the religious foundations for social justice within the Christian tradition. Emphasis will be placed on employing a structural analysis of social problems that includes the role of religion and religious communities in both perpetrating and healing social injustice.

**REL 348. ENVIRONMENTAL ETHICS**

In an exploration of the moral dimensions of the environmental crisis, students examine the roles religious and philosophical ethics play in providing frameworks for understanding environmental issues and developing guidelines for addressing specific contemporary problems. Cross-listed with PHL 348.

**REL 356. CHINESE “RELIGIONS” FROM CONFUCIUS TO MAO**

Chinese “religious” thought and practice can include philosophy, political science, ethics, aesthetics, physical education, medicine and mysticism. This course broadens the category of “religion” as we investigate traditions such as Confucianism, Daoism, Buddhism, Neo-Confucianism, Islam, Christianity and/or popular religion in China. Less familiar ideologies and a critical assessment of Communist texts, images and state rituals will also be considered.

**REL 357. SAGES AND SAMURAI: RELIGION IN THE JAPANESE EXPERIENCE**

This course explores the historical and contemporary role of religion in Japan. It pays particular attention to primary texts in translation and to the visual and ritual expressions of Shintoism, Buddhism, Neo-Confucianism, Christianity and folk religion. In addition, it emphasizes these as vibrant, lived traditions in Japan whose continued relevance can be discerned today.

**REL 358. SITES AND RITES: SACRED SPACE AND RITUAL IN WORLD RELIGIONS**

This course explores how real and ideal spaces reflect and shape our perceptions of the sacred. It investigates how geometric principles, utopian ideals, local culture, ritual activities and political agendas reconstruct cosmic order and complicate meaning at some of the world’s most awe-inspiring - and historically contested - places. A final segment on pilgrimage completes the course.

**REL 360. HINDU GODDESSES: FROM MYTHS TO MOVIES**

This course introduces several of the most important Hindu goddesses and considers how they are represented, characterized and embodied in textual, performance and ritual traditions. Students in this course will analyze the theologies, mythologies and poetry connected with particular goddesses and will explore how individual goddesses are approached in Hindu worship, ritual practice and festival celebrations.
REL 361. WOMEN, RELIGION AND ETHNOGRAPHY 4 sh
This course introduces students to contemporary women’s religious lives, ritual performances and bodily practices across several traditions. Because they foreground the everyday, lived religious experiences of women offer us access to women’s own voices and perspectives. Our primary sources will be ethnographic studies.

REL 362. HINDU TEXTUAL TRADITIONS: SACRIFICE, DUTY AND DEVOTION 4 sh
This course examines a selection of written, oral and performed texts associated with Hindu traditions in their various social, historical and religious contexts. In addition to primary texts drawn from sources such as the Vedas, Upanishads, Puranas, Hindu epics and the corpus of Hindu devotional poetry, we will analyze ritual, dance and artistic performance traditions as well as modern oral narratives.

REL 363. WOMEN IN ISLAM: VENERATION, VEILS AND VOICES 4 sh
This course explores Muslim women’s religious roles, participation and practices throughout the history of Islam and across a variety of cultural contexts. Attention will be paid to the diversity of interpretations concerning textual prescriptions about women in Islam and to women’s own articulations about their religious identities, and to how the ways that women have negotiated their everyday religious lives are intimately related to social location, economic considerations and political developments.

REL 364. WAR, WOMEN, AND INFIDELS: THE QURAN AND ISLAMIC TRADITION 4 sh
This course is an introduction to the Quran and its reception in Muslim thought, culture and religiosity. Students become familiar with the traditional Muslim account of the Quran’s origins; the scripture’s major concepts and concerns, dominant trends in its historical and modern interpretation; and various scholarly debates over and approaches to the work.

REL 365. JIHAD IN HISTORICAL AND GLOBAL PERSPECTIVE 4 sh
This course examines the origins of jihad in early Islamic history, debates over its significance and legitimacy in classical Islamic culture, its resurgence in early modern revivalist and anti-colonial struggles, and its role as a significant and evolving aspect of contemporary global politics.

REL 366. JEWS AND MUSLIMS: SYMBIOSIS, COOPERATION AND CONFLICT 4 sh
This course examines the so-called “symbiosis” between Jews and Muslims in the Middle East in Late Antiquity and the Middle Ages, focusing on questions of identity, community, and cross-cultural exchange and communication. These questions are then explored in their continuing relevance from the early modern period to the present day along with their implications for contemporary Jewish-Muslim relations.

REL 367. RELIGION AND EMPIRE IN LATE ANTIQUITY 4 sh
This course examines the complex interrelationships between empire and religion in Late Antiquity. We explore how Judaism, Christianity and Islam developed in this era, taking on their definitive shapes and becoming “world religions.” We focus on the intertwined themes of belief, authority, community and identity as we proceed through the eras of Greek, Roman, Persian and Arab-Islamic dominion in the Near East and Mediterranean.

REL 460-69. SPECIAL TOPICS 4 sh
These courses allow individual faculty members to teach courses on timely topics that are of special interest to students or on topics that are related to faculty research projects that may be of interest to students. Recent offerings include: Christianity, Globalization and Empire; Reading the Bible from the Margins; Comparative Mysticism; and Theology from the Margins.

REL 491. INDEPENDENT STUDY 1-4 sh
Upper-class majors (or others by instructor consent) may complete individual study in an area of special interest with the guidance of a member of the department. Maximum six semester hours credit.
REL 492. **SENIOR SEMINAR** 4 sh
In this capstone course, the student and the department evaluate performance over the student’s past years of study. Prerequisite: REL 292. Required of all majors during senior year.

REL 499. **RESEARCH** 1-4 sh
This course offers the individual student an opportunity to pursue a research project with a selected faculty mentor. Prerequisite: Permission of instructor.

**Science**
Coordinator: Assistant Professor Gammon
Professors: Dillashaw, Grimley
Associate Professor: Coker
Assistant Professors: Hargrove-Leak, Train

Science courses integrate the natural sciences, providing the opportunity to see the interrelatedness of the different science disciplines. Students experience the processes of science and relate the natural sciences to areas outside the classroom and laboratory.

SCI 121. **SCIENCE WITHOUT BORDERS** 4 sh
This course will challenge every student to think critically about the biggest ideas produced by the natural sciences. Students will learn how to think like a scientist as they explore the development of, evidence supporting and applications for these ideas, which span atoms, the universe and everything in between. Also, student groups will use the scientific method to approach complex “real-world” problems that intersect with the natural sciences. Students are strongly encouraged to take this course during their freshman or sophomore year. This course does not carry lab credit.

**Science Education**
Coordinator: Professor Dillashaw

The Departments of Biology, Chemistry and Physics, in cooperation with the School of Education, offer programs leading to the Bachelor of Arts in Science Education with Secondary Science Comprehensive Licensure and with Secondary Science Licensure in the areas of biology, chemistry and physics.

**The Bachelor of Arts degree with Secondary Science Comprehensive Licensure requires the following courses:**

- Professional studies courses in education, psychology and information systems 40 sh
- All courses in one of the concentrations listed below 52-64 sh

**TOTAL** 92-104 sh

**Concentrations**

**Biology:**

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<thead>
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<th>Course</th>
<th>Title</th>
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<td>BIO 111</td>
<td>Introductory Cell Biology</td>
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<tr>
<td>BIO 112</td>
<td>Introductory Population Biology</td>
<td>3 sh</td>
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<tr>
<td>BIO 113</td>
<td>Cell Biology Lab</td>
<td>1 sh</td>
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<tr>
<td>BIO 114</td>
<td>Population Biology Lab</td>
<td>1 sh</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>BIO 231</td>
<td>Biodiversity</td>
<td>4 sh</td>
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<tr>
<td>BIO 245</td>
<td>Principles of Genetics</td>
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</tr>
<tr>
<td>BIO 246</td>
<td>Genetics Lab</td>
<td>1 sh</td>
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Choose one course from the molecular/cellular biology category 4 sh

<table>
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<th>Course Title</th>
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<tr>
<td>BIO 325</td>
<td>Human Histology</td>
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<tr>
<td>BIO 348</td>
<td>Biotechnology</td>
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<tr>
<td>BIO 422</td>
<td>Molecular/Cellular Biology</td>
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<tr>
<td>BIO 445</td>
<td>Advanced Genetics</td>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CHM 111</td>
<td>General Chemistry I</td>
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<tr>
<td>CHM 112</td>
<td>General Chemistry II</td>
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<tr>
<td>CHM 211</td>
<td>Organic Chemistry I</td>
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<td>PHY 102</td>
<td>Astronomy</td>
<td>4 sh</td>
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<td>PHY 103</td>
<td>Geology</td>
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<tr>
<td>PHY 221</td>
<td>University Physics I</td>
<td>4 sh</td>
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<tr>
<td>PHY 222</td>
<td>University Physics II</td>
<td>4 sh</td>
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(PHY 201 and 202 may be substituted for PHY 221 and 222)

Choose one course from the following: 4 sh

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MTH 112</td>
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<tr>
<td>MTH 212</td>
<td>Statistics in Application</td>
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Choose one biology lab course 300-level or higher 4 sh

Choose one course from the following: 4 sh

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>CHM 332</td>
<td>Physical Chemistry I</td>
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<tr>
<td>CHM 341</td>
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**TOTAL** 60 sh

**Chemistry:**

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</thead>
<tbody>
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<td>General Chemistry I</td>
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<tr>
<td>CHM 112</td>
<td>General Chemistry II</td>
<td>4 sh</td>
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<tr>
<td>CHM 211</td>
<td>Organic Chemistry I</td>
<td>4 sh</td>
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<tr>
<td>CHM 212</td>
<td>Organic Chemistry II</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 332</td>
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</tr>
<tr>
<td>BIO 113</td>
<td>Introductory Cell Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>BIO 114</td>
<td>Population Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>PHY 221</td>
<td>University Physics I</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 222</td>
<td>University Physics II</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

(PHY 201 and 202 may be substituted for PHY 221 and 222)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 121</td>
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</tr>
<tr>
<td>PHY 102</td>
<td>Astronomy</td>
<td>4 sh</td>
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</table>
Choose one course from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 311</td>
<td>Quantitative Analysis</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 341</td>
<td>Inorganic Chemistry</td>
<td>4 sh</td>
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</table>

**TOTAL** 52 sh

**Physics:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PHY 102</td>
<td>Astronomy</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 103</td>
<td>Geology</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 221</td>
<td>University Physics I</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 222</td>
<td>University Physics II</td>
<td>4 sh</td>
</tr>
<tr>
<td>PHY 314</td>
<td>Modern Physics</td>
<td>4 sh</td>
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Choose one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 401</td>
<td>Classical Mechanics and Dynamical Systems (4 sh)</td>
<td>4 sh</td>
</tr>
<tr>
<td>EGR 206</td>
<td>Engineering Mechanics (3 sh)</td>
<td>3 sh</td>
</tr>
<tr>
<td>PHY 311</td>
<td>Classical Electrodynamics</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 221</td>
<td>Calculus II</td>
<td>4 sh</td>
</tr>
<tr>
<td>MTH 321</td>
<td>Multivariable Calculus and Analytic Geometry</td>
<td>4 sh</td>
</tr>
<tr>
<td>BIO 111</td>
<td>Introductory Cell Biology</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO 112</td>
<td>Introductory Population Biology</td>
<td>3 sh</td>
</tr>
<tr>
<td>BIO 113</td>
<td>Cell Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>BIO 114</td>
<td>Population Biology Lab</td>
<td>1 sh</td>
</tr>
<tr>
<td>CHM 111</td>
<td>General Chemistry I</td>
<td>4 sh</td>
</tr>
<tr>
<td>CHM 112</td>
<td>General Chemistry II</td>
<td>4 sh</td>
</tr>
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</table>

**TOTAL** 63-64 sh

**Sociology**

**Chair, Department of Sociology and Anthropology:** Professor Basirico  
**Coordinator, Anthropology Program:** Professor Bolin  
**Professors:** Arcaro, T. Henricks  
**Associate Professors:** Franzese, Lewellyn Jones, Mould, Palmquist  
**Assistant Professors:** Curry, Peeks, Peloquin, Trachman

Sociology courses develop what is sometimes called the “sociological imagination,” the ability to see clearly the relationship between the most intimate, seemingly private matters and the great patterns and issues that shape the character of the wider society. On the one hand, this means learning a range of theoretical, methodological and problem-solving skills that are central to this field. But it also means developing a set of ethical sensitivities that help one to understand sympathetically the widely differing circumstances of people and to support the development of respectful, compassionate communities. Fundamentally, sociology studies the patterning, problems and prospects of human relationships.
At Elon, professors and students are committed to understanding societies at many different levels. Sociologists wish to know how individuals develop visions of self, how they build and inhabit interpersonal relationships, and how they negotiate the meanings attached to social situations. But they also study the ways in which larger groups and organizations are constructed and operate. They consider the character of social communities like towns and cities as well as important social institutions like family patterns, religion, education, health care, media, economics, politics and the legal system. Beyond this, they analyze and compare the characteristics of entire societies and study the emerging patterns of global communication and organization. A special focus of the program is the organization of social difference and inequality. Sociology courses discuss how socially constructed differences of gender, class, race/ethnicity, age and sexual orientation are produced and reproduced in human behavior.

With its wide scope and applicability, sociology is a valuable complement to all the university’s programs. At Elon, sociology is closely linked to anthropology, and students are encouraged to take anthropology courses as well. Both disciplines emphasize that solutions to interpersonal, community, national and international problems demand an understanding of society and culture. The socio-cultural perspective developed through sociology and anthropology courses is an asset to anyone considering a career in business, politics, social services, law, counseling, health care, social services, urban planning, non-governmental organizations and many other fields. Whatever occupational and life goals you may have, they will be enriched by a knowledge of sociology.

A major in Sociology requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 111</td>
<td>Introductory Sociology</td>
<td>4 sh</td>
</tr>
<tr>
<td>SOC 215</td>
<td>Qualitative Research Methods</td>
<td>4 sh</td>
</tr>
<tr>
<td>SOC 216</td>
<td>Quantitative Research Methods</td>
<td>4 sh</td>
</tr>
<tr>
<td>SOC 261</td>
<td>Classical Sociological Theory</td>
<td>4 sh</td>
</tr>
<tr>
<td>SOC 262</td>
<td>Contemporary Social Theory</td>
<td>4 sh</td>
</tr>
<tr>
<td>SOC 461</td>
<td>Senior Seminar in Sociology</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Twenty semester hours of electives in SOC courses at or above the 200 level; up to 8 hours may be selected from ANT courses 20 sh

TOTAL 44 sh

All graduating sociology majors are required to complete a senior portfolio of their work. This portfolio will include a compilation of their work across their four years of sociological study at Elon; therefore, students should be mindful of this requirement as they complete work for all their courses and be sure to retain electronic copies of work that they may want to include in their portfolio in their senior year.

A minor in Sociology requires the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 111</td>
<td>Introductory Sociology</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Choose one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 215</td>
<td>Qualitative Research Methods</td>
<td>4 sh</td>
</tr>
<tr>
<td>SOC 216</td>
<td>Quantitative Research Methods</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Twelve semester hours selected from SOC courses at or above the 200 level; up to four hours may be selected from ANT courses 12 sh

TOTAL 20 sh
SOC 111. INTRODUCTORY SOCIOLOGY
This course provides an introduction to basic theoretical principles and research methods of modern sociology, including such issues as the relationship between culture, personality and society; the fundamental forms of social structure; social institutions such as religion and the family; and social processes such as deviance and social change. Offered fall and spring.

SOC 131. SOCIOLOGY THROUGH FILM
This course explores sociological principles, concepts, theories, ideas, themes and issues as they may be illustrated in cinema, television and commercials. Relevant sociological readings are assigned to accompany the specific sociological content being illustrated in each session. Offered winter.

SOC 215. QUALITATIVE RESEARCH METHODS
This course examines the ways qualitative analyses (non-numerical data) help social scientists explore questions of meaning within specific social and cultural contexts, and historical moments. Specific topics include: participant observation, focus groups, open-ended interviewing, thematic coding, archival research and data analysis with a qualitative computer software program. The complementary relationship between qualitative and quantitative research methods will be considered, with a sustained focus on the particular strengths and weaknesses of qualitative research design. Prerequisite: SOC 111 or ANT 112. Cross-listed with ANT 215.

SOC 216. QUANTITATIVE RESEARCH METHODS
This course examines the ways quantitative analyses (numerical data) help social scientists investigate issues, problems and relationships within social and cultural contexts. Specific topics include: discussion of the scientific method, survey methodology, sampling techniques, hypothesis testing, aggregate level analyses and issues of reliability, validity and generalizability, as well as data analysis with SPSS. The complementary relationship between quantitative and qualitative research designs will be considered, with a focus on the strengths and weaknesses of quantitative research design. Prerequisite: SOC 111 or ANT 112. Offered spring semester. Cross-listed with ANT 216.

SOC 220. SOCIAL ISSUES AND PROBLEMS IN THE LOCAL COMMUNITY
Students investigate social issues and problems in our local community (i.e., the Elon/Burlington area, Alamance County and even North Carolina as a whole) and use an interdisciplinary framework, heavily grounded in sociological theory and analysis, to discover the interconnections between local, national and global problems. Study focuses on causes, consequences and policies concerning such problems as poverty and racism and issues pertaining to institutions such as family, economy, government, medicine, religion and others. This course is a service learning course. This is the entry course for the Civic Engagement Scholars program, and is also open to other interested students as well.

SOC 243. SOCIOLOGY OF EDUCATION
Throughout the world, education has become a vast and complex social institution that prepares citizens for the roles demanded by other social institutions, such as the family, government and the economy. Through the different theoretical perspectives, education is analyzed as a key social institution that influences and is influenced by the larger society. This course is designed for students to explore topics such as learning and social class, teacher and parental expectations, learning and gender, ethnicity, the role of education in the acculturation and assimilation process, and the relation between learning and family rearing practices. Therefore, the sociological and cultural aspects relating to public schools will be emphasized. In addition, students will experience firsthand some of the materials covered in class through a required field experience. Offered fall and spring.

SOC 245. NONVIOLENCE OF THE BRAVE: FROM GANDHI TO KING
Students are exposed to the ideas and personalities of political philosophers and leaders who have influenced major nonviolent social and political movements in the 20th century. Common themes appearing in the philosophies and action plans of Thoreau, Gandhi, King
and others are explored and compared to the philosophies and action plans of leaders such as Mao Tse-tung, Malcolm X and others. The course includes readings, feature films and documentaries.

**SOC 253. INDIGENOUS AUSTRALIA**

Students experience western Australia through anthropological and sociological perspectives. The influence of Aboriginal, European and Pacific migrants on Australian culture is examined. A predominant focus of the course is an exploration of Aboriginal peoples in relation to Euro-Australian interests. Students are exposed to a rich cultural milieu through orientation prior to departure, participant-observation, focused observations, field trips, lectures and directed self learning. Offered Winter Term.

**SOC 261. CLASSICAL SOCIOLOGICAL THEORY**

In sociological theory, students explore conceptualization and model-building in modern sociology and consider the emergence of sociological traditions or perspectives. Topics include underlying assumptions, historical and intellectual background and the logical consequences of these positions. This course is a writing intensive course, meaning at least 70 percent of the grade comes from writing assignments during the course. Prerequisite: SOC 111.

**SOC 262. CONTEMPORARY SOCIAL THEORY**

This course explores how current social conditions and new social movements have prompted a rich, lively process of critical re-engagement and even rejection of the “classics” of sociological theory. Students will consider how contemporary politics of identity and difference, as well as scientific challenges to the nature-culture dichotomy, catalyze deep reflection on the perennial issues of social theory: the possibility of social order, the dynamics of social change and the relationship between the individual and society. Consequently, limitations of the classics to explain contemporary social realities will be uncovered. Furthermore, course materials will challenge students to identify the alternative axes of theoretical dispute in sociology as well as to question the contributions and consequences of social scientific knowledge. This course is writing and reading intensive. Prerequisite: SOC 111.

**SOC 311. SOCIOLOGY OF FAMILIES**

This course provides an investigation of the family as an institution in societies, focusing on the development and current patterns of the American family. Specific topics include social class differences, racial and ethnic variations, premarital patterns, marital interaction, family problems and the future prospects for the family. Prerequisite: SOC 111.

**SOC 312. SOCIOLOGY OF INTERPERSONAL VIOLENCE AND RELATIONSHIP HEALTH**

Personal health behavior and relationship health, like all other behavior, is a product of social norms and cultural traditions. How people care for their interpersonal relationships, how they perceive and react to violence, how they communicate in relationships – none of these occur independently of social forces. A sociological lens is an effective perspective through which to view the prevention of interpersonal violence and the promotion of healthy relationships. Offered Winter Term.

**SOC 314. SOCIOLOGY OF SPORT**

This course focuses on sport as a major social institution in American society. Topics include the social organization of sport, the relationship of sport to other aspects of American life such as politics and education, the experiences of African-Americans, women and youth in sport, and the effects of sport on culture, personality and society. Prerequisite: SOC 111.

**SOC 315. DRUGS AND SOCIETY**

The objective of this course is to provide a comprehensive survey of the development of sociological theories and analyses of drug use, focusing on images of drug use and the drug user as social constructs rather than as an intrinsically pathological behavior or identity. An additional objective of this course is to survey the current information and research on selected categories of drugs and the socially constructed reality that surrounds their use in contemporary society. Offered spring of alternate years.
SOC 316. Sociology of Religion  
The goal of this course is to examine the critical importance and functions of religion in human societies. Also, it explores the social characteristics of world religions and religious organizations. In addition, this course will investigate religious behaviors such as beliefs, rituals and experiences.

SOC 331. The Self and Society  
Self and society involves the ways individuals are influenced by social interaction with others, with attention to the interaction processes of socialization, developing an identity and individual identities affecting interactions. Other topics include the impact of social change, increased technological developments in everyday life and postmodernism on the self, and the sociological perspectives of symbolic interactionism and dramaturgy. Prerequisite: SOC 111.

SOC 333. Social Stratification  
This study of societal patterns of inequality includes consideration of differences in wealth, power, prestige and knowledge. Students examine the access levels groups have to these resources and the subsequent effects of their access level on educational opportunity, housing, health care, justice before the law, self-esteem and life satisfaction. The stratification systems of different societies are studied but the primary focus is on institutionalized inequality in the U.S. Prerequisite: SOC 111.

SOC 334. Environmental Sociology  
This course examines how social systems interact with ecosystems. Within this examination, the course will explore how environmental sociologists describe and explain the patterns that emerge from this interaction; explore what has led to the social disruption of ecosystems; explore the consequences of environmental disruption; and examine ways society has responded to human-induced environmental disruption.

SOC 341. Ethnic and Race Relations  
Students examine the meaning of minority group status in terms of the general patterns and problems confronting all minorities as well as the specific issues facing individual minority groups such as African-Americans, Jews, European-Americans and Asian-Americans. Discussion emphasizes the nature of prejudice and discrimination, the structure of minority-majority relations and strategies toward social equality. Prerequisite: SOC 111.

SOC 342. Social Deviance  
This course considers deviance and social control in societal context. Emphasis is placed on the ways deviance is defined cross-culturally and on the different ways deviants are labeled and treated. The course focuses on sociocultural explanations of deviance within such areas as mental and physical health, drug use, sexual expression, aggression and personal identity. The relationship between deviance and social stratification is examined. Prerequisite: SOC 111.

SOC 343. Social and Cultural Change  
Concern for the nature and direction of modernization provides a foundation in this course as students analyze patterns of social and cultural change (especially in technologically advanced societies such as the U.S.). Topics include innovation, diffusion, evolution, revolution, collective behavior and social movements with emphasis on the causes of patterns and their effects on individual and public life. Prerequisite: SOC 111.

SOC 345. Sociocultural Perspectives on Gender  
Students use sociological and anthropological perspectives, theories and concepts to analyze the meaning of being female and male in American society. Discussion emphasizes the inequities based upon gender, particularly the problems faced by women. Prerequisite: SOC 111 or ANT 112.

SOC 351. Sociology of Popular Culture  
This course studies the nature and significance of culture as this is presented to the public through movies, magazines, newspapers, television, music, radio, popular fiction, spectator
events and mass-produced consumer goods. The course will focus on patterns of production, distribution and consumption of popular culture, thematic issues and effects on behavior. A special concern will be the relationship of popular culture images to “visions of the good life” in the modern U.S. Prerequisite: SOC 111.

**SOC 355. CRIMINOLOGY**

This course provides a sociological explanation of crime with a focus on the relationship between social structure and criminal behavior. Included in this approach are studies of individual criminal behavior. Both classic and contemporary theories of crime are explored; emphasis is placed upon the U.S. context.

**SOC 370-79. SPECIAL TOPICS IN SOCIOLOGY**

This is a series of courses reflecting new contributions in sociology or sociological issues. Prerequisite: To be determined by instructor.

**SOC 461. SENIOR SEMINAR IN SOCIOLOGY**

This capstone course reviews major areas of sociology and provides further opportunity to share research on these topics. Students conduct research ranging from how sociological knowledge can be applied occupationally and politically to more basic, academic topics. Students compile a senior intellectual portfolio that includes examples of their academic achievements across their years of sociological study; therefore, students should be mindful of this requirement and retain electronic copies of work that they may want to include in this portfolio. Prerequisites: Senior sociology major, SOC 215, 216 and either SOC 261 or 262.

**SOC 471. SEMINAR: SPECIAL TOPICS**

**SOC 481. INTERNSHIP IN SOCIOLOGY**

Teaching, research, service and occupational internships are offered. Limited to four semester hours credit applicable to sociology major or minor. Prerequisites: Department permission and at least sophomore standing.

**SOC 491. INDEPENDENT STUDY**

**SOC 499. INDEPENDENT RESEARCH IN SOCIOLOGY**

The student develops an individual project of original research under the guidance of a professor within the department. Prerequisites: At least sophomore standing, Sociology major or minor; satisfactory completion of SOC 215 or SOC 216, and permission of the sponsoring professor. Students are also required to complete the department’s independent research form, a process that includes a description of the proposed research and a student-professor plan for completing the course.

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**Sport and Event Management**

Chair: Associate Professor Walker  
Associate Professor: Drummond  
Assistant Professor: Weaver  
Instructors: Cryan, Darwart, Owen, Roupas

The Sport and Event Management major prepares students to manage sport and recreation organizations, events, facilities, and activities in public, private and commercial settings. Students will develop a service sensitivity with skills applicable to sport and leisure settings within this diverse industry.

**REQUIRED MINOR OR OTHER OPTIONS.** To promote academic depth, all students must complete a minor, double major or complete a semester abroad (totaling 12 credit hours or more) in an Elon-approved program.

**A major in Sport and Event Management requires the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEM 212</td>
<td>Introduction to Sport and Event Management</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
A minor in Sport and Event Management requires the following courses:

- SEM 212 Introduction to Sport and Event Management 4 sh
- SEM 226 Facility Planning and Maintenance Management 4 sh
- SEM 227 Programming and Event Management 4 sh

Eight semester hours selected from the following: 8 sh

- SEM 305 Legal Aspects of Sport and Event Management
- SEM 351 Marketing in Sport and Event Management
- SEM 412 Financial Operations of Sport and Event Management

TOTAL 20 sh

SEM 161. MANAGING A PROFESSIONAL SPORT FRANCHISE 4 sh
This elective course provides an overview of the general management of a professional sport team including marketing, sponsorship and ticket sales, media, facility and personnel management, legal and liability issues.

SEM 212. INTRODUCTION TO SPORT AND EVENT MANAGEMENT 4 sh
Students study terminology, philosophies, history, management principles and the evolution of sport and event management. Internal and external recreation motivations for participation and relevant contemporary issues will be addressed.

SEM 226. FACILITY PLANNING AND MAINTENANCE MANAGEMENT 4 sh
This study focuses on area and facility planning and maintenance principles. This includes development of a master plan and analyzing the relationship of maintenance and planning to risk management, visitor control, vandalism and law enforcement.

SEM 227. PROGRAMMING AND EVENT MANAGEMENT 4 sh
Students study the principles of organization, planning and group dynamics as they apply to special event management in sport and recreation. Students also learn to identify, develop and apply component skills such as needs assessment, inventory and evaluation. Students will plan and administer an actual event.
SEM 305. **LEGAL ASPECTS OF SPORT AND EVENT MANAGEMENT**  
4 sh  
The United States is the most litigious nation in the world. Consequently, as a major sector of the economy, managers of sport and recreation industries must be aware of component legal issues in order to operate safely and efficiently. This course will allow students to examine pertinent legal issues such as contracts, personal and product liability, risk management, gender discrimination, human resources and drug testing. Prerequisite: SEM 212.

SEM 332. **RESEARCH METHODS IN SPORT AND EVENT MANAGEMENT**  
4 sh  
An examination of research methods in sport and event management settings, including research techniques, defining research problems, hypotheses development, reviewing and interpreting literature, organization, and analyzing and presenting data. Prerequisites: SEM 212 and BUS 202.

SEM 351. **MARKETING IN SPORT AND EVENT MANAGEMENT**  
4 sh  
This course examines the theory and pragmatic aspects of service marketing, promotions and public relations and their application to the sport and event industry. Prerequisites: SEM 212 and BUS 202.

SEM 412. **FINANCIAL OPERATIONS OF SPORT AND EVENT MANAGEMENT**  
4 sh  
This course presents an overview of financial and economic issues within the sport and event management industry. Topics include economic impact analysis, public and private sector resources, facility funding, sponsorship, fundraising for profit and nonprofit agencies, commercial and public recreation, collegiate and professional sport organizations. Prerequisites: SEM 212 and ACC 201.

SEM 426. **GOVERNANCE AND POLICY DEVELOPMENT**  
4 sh  
An analysis of policy development within public and private sport and recreation settings including: professional sport, interscholastic sport, and national and international sport organizations. This course will include analyses of the implications of cultural and social issues in these varied settings. Prerequisites: SEM 212 and senior standing or permission of instructor.

SEM 461. **SENIOR SEMINAR**  
4 sh  
Students eclectically review academic work to date and demonstrate ability to analyze contemporary issues/problems in sport and event management. Prerequisites: SEM 212 and senior standing.

SEM 481. **INTERNSHIP IN SPORT AND EVENT MANAGEMENT**  
6 sh  
This course provides students with 400 supervised hours (agency and university) of experiential exposure in the area of their vocational interest. Students demonstrate knowledge, skills, abilities and competencies in the areas of organization and administration, leadership techniques, program planning and implementation, fiscal administration, personnel development and supervision, public and political relations and area/facility planning, development and maintenance. Students will submit the following to the academic supervisor: learning objectives, weekly reports and an agency survey showing comprehensive knowledge of the agency. Arrangements with a professor must be made prior to the semester in which the internship is taken. Prerequisite: SEM major, must have junior standing and 2.0 GPA in major. Offered fall, spring and summer.

SEM 490. **INDEPENDENT STUDY IN SPORT AND EVENT MANAGEMENT**  
1-4 sh

SEM 499. **INDEPENDENT RESEARCH IN SPORT AND EVENT MANAGEMENT**  
1-4 sh
Statistics

Coordinator: Associate Professor Delpish
Assistant Professors: Doehler, Taylor
Lecturer: Chadraa

The Statistics program is designed to provide strong interdisciplinary knowledge of the application and theory of statistics to students. Indeed, every discipline which gathers and interprets data uses statistical concepts and procedures to understand the information implicit in their data base. The program is designed to emphasize statistics both as a science unto itself, and as a powerful service field offering applications-based tools for disciplines such as mathematics, biology, environmental science, psychology and other social sciences.

Students will be exposed to concepts and tools for working with data and will gain hands-on experience and critical thinking skills by designing, collecting and analyzing real data that go beyond the content of a first course in statistics. Invariably, these experiences involve solving problems in a group environment thereby increasing the students’ interpersonal skills as well. These additional skills will significantly enhance the students’ ability to do independent research and will boost their marketability in an increasingly competitive business environment.

Recognizing the interdisciplinary nature of statistics, the program allows students to concentrate in areas that highlight the use of statistics in other fields while pursuing a Bachelor of Science, Bachelor of Arts or minor in statistics. The B.S. is designed to support students who are interested in the major as a stand-alone degree or who intend to purse research or graduate studies in related fields such as epidemiology/public health, while the A.B. is designed to facilitate students interested in double-majoring or going directly into industry in a supporting role upon graduation. The statistics minor is designed for students who are majors in other disciplines and will provide a focus and cohesion of general statistical ideas.

The Bachelor of Arts in Statistics requires the following courses:

Statistics foundations

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH/STS 212</td>
<td>Statistics in Application</td>
<td>4 sh</td>
</tr>
<tr>
<td>STS 213</td>
<td>Survey Sampling Methods</td>
<td>4 sh</td>
</tr>
<tr>
<td>STS 232</td>
<td>Statistical Modeling</td>
<td>4 sh</td>
</tr>
<tr>
<td>STS 325</td>
<td>Design and Analysis of Experiments</td>
<td>4 sh</td>
</tr>
</tbody>
</table>

Mathematical foundations

Choose one course from the following: 4 sh

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MTH 116</td>
<td>Applied Calculus</td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
</tr>
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</table>

Choose one course from the following: 4 sh

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STS 256</td>
<td>Applied Nonparametric Statistics</td>
</tr>
<tr>
<td>STS 327</td>
<td>Statistical Computing</td>
</tr>
<tr>
<td>MTH/STS 341</td>
<td>Probability Theory and Statistics</td>
</tr>
<tr>
<td>STS 342</td>
<td>Statistical Theory</td>
</tr>
</tbody>
</table>
Capstone

A related experiential/capstone experience approved by the department. Approved options included: 2-4 sh

MTH/STS 460 Seminar I
MTH/STS 461 Seminar II
STS 481 Internship in Statistics
STS 499 Independent Research in Statistics

Total foundation courses 26-28 sh

Concentrations

Select one of the following concentrations:

Environmental statistics

ENS 111/113 Introduction to Environmental Science w/ Lab 4 sh
ENS 215 Diversity of Life 4 sh

Choose two courses from the following 8 sh

ENS 250 Introduction to Geographic Information Systems
GEO 345 Global Environmental Change
ECO 335 Environmental Economics
BIO 342 Aquatic Biology
BIO 350 General Ecology

Total environmental statistics 16 sh

Statistical methods in social science

Select four courses from the following list where at least two of the areas of Economics (ECO), Psychology (PSY), Sociology/Anthropology (SOC/ANT), and Political Science (POL) are represented and not more than one course at the 100 level is counted. 16 sh

ANT 113 Human Evolution and Adaptation
ANT 364 Inequality and Development in Latin America
ECO 111 Principles of Economic
ECO 310 Intermediate Macroeconomics
ECO 311 Intermediate Microeconomics
ECO 347 Introduction to Econometrics
POL 111 American Government
POL 321 Public Opinion Polling
POL 328 Public Policy
POL 329 Political Behavior
POL 431 Policy Analysis and Program Evaluation
PSY 111 Introduction to Psychology
PSY 321 Educational Psychology
PSY 331 Psychological Testing
PSY 333 Abnormal Psychology
PSY 356 Health Psychology
PSY 363  Industrial and Organizational Psychology
SOC 111  Introductory Sociology
SOC 215  Qualitative Research Methods
SOC 355  Criminology

Total statistical methods in social science 16 sh

Bio-statistics

BIO 111/113  Cell Biology and Lab 4 sh
BIO 112/114  Population Biology and Lab 4 sh
Choose one course from the following: 4 sh
  BIO 231  Biodiversity
  BIO 245/246  Genetics and Lab

Choose one course from the following: 4 sh
  PHS 301  Introduction to Epidemiology*
  BIO 318  Comparative Vertebrate Structure and Function
  BIO 325  Human Histology
  BIO 331  The Biology of Animal Behavior
  BIO 332  Zoology
  BIO 335  Field Biology
  BIO 341  Botany
  BIO 344  Evolution
  BIO 348  Biotechnology
  BIO 350  General Ecology

Total bio-statistics 16 sh

TOTAL 42-44 sh

*The PHS 201 prerequisite for PHS 301 will be waived for declared statistics majors with the permission of the Public Health Studies Coordinator.

The Bachelor of Science in Statistics requires the following courses:

Statistics foundations

MTH/STS 212  Statistics in Application 4 sh
STS 232  Statistical Modeling 4 sh
STS 325  Design and Analysis of Experiments 4 sh
MTH/STS 341  Probability Theory and Statistics 4 sh

Mathematical foundations

MTH 121  Calculus I 4 sh
MTH 221  Calculus II 4 sh
Choose two courses selected from the following: 8 sh
  STS 213  Survey Sampling Methods
  STS 256  Applied Nonparametric Statistics
Capstone

A related experiential/capstone experience approved by the department.

Approved options include:

- MTH/STS 460 Seminar I
- MTH/STS 461 Seminar II
- STS 481 Internship in Statistics
- STS 499 Independent Research in Statistics

Total foundation courses: 36 sh

Concentrations

Select one of the following concentrations:

Actuarial science

- ECO 111 Principles of Economics 4 sh
- ACC 201 Principles of Accounting 4 sh
- FIN 343 Principles of Finance 4 sh
- FIN 416 Fundamentals of Insurance 4 sh
- FIN 433 Derivatives 4 sh

Total Actuarial science: 20 sh

Mathematical statistics

- MTH 321 Multivariable Calculus and Analytic Geometry 4 sh
- MTH 231 Mathematical Reasoning 4 sh
- STS 342 Statistical Theory 4 sh

Choose one course from the following: 4 sh

- MTH 306 Applied Matrix Theory
- MTH 311 Linear Algebra

Choose one course from the following: 4 sh

- MTH 206 Discrete Structures
- MTH 265 Mathematical Modeling
- MTH 312 Abstract Algebra
- MTH 425 Analysis

Total mathematical statistics: 20 sh

Bio-statistics

- BIO 111/113 Cell Biology and Lab 4 sh
- BIO 112/114 Population Biology and Lab 4 sh

Choose one course from the following: 4 sh

- BIO 231 Biodiversity
Choose one course from the following:  

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PHS 301</td>
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<td>Botany</td>
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<td>Evolution</td>
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<tr>
<td>BIO 348</td>
<td>Biotechnology</td>
</tr>
<tr>
<td>BIO 350</td>
<td>General Ecology</td>
</tr>
</tbody>
</table>

**Total bio-statistics**  

**TOTAL**  

52-56 sh

*The PHS 201 prerequisite for PHS 301 will be waived for declared statistics majors with the permission of the Public Health Studies Coordinator.

All graduating statistics majors are required to complete a senior portfolio of their work. This portfolio will include a compilation of their work across their four years of statistical study at Elon; therefore, students should be mindful of this requirement as they complete work for all their courses and be sure to retain electronic copies of work that they may want to include in their portfolio in their senior year.

**A minor in Statistics requires the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>MTH/STS 212</td>
<td>Statistics in Application</td>
</tr>
</tbody>
</table>

Four courses selected from the following:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 112</td>
<td>General Statistics</td>
</tr>
<tr>
<td>STS 213</td>
<td>Survey Sampling Methods</td>
</tr>
<tr>
<td>STS 232</td>
<td>Statistical Modeling</td>
</tr>
<tr>
<td>STS 256</td>
<td>Applied Nonparametric Statistics</td>
</tr>
<tr>
<td>STS 325</td>
<td>Design and Analysis of Experiments</td>
</tr>
<tr>
<td>MTH/STS 341</td>
<td>Probability Theory and Statistics</td>
</tr>
</tbody>
</table>

One course approved by the mathematics department from an allied field

**TOTAL**  

20 sh

**MTH/STS 212. STATISTICS IN APPLICATION**  

An introduction to concepts in statistics at a deeper quantitative level than that offered in MTH 112. This course emphasizes rationales, applications and interpretations using advanced statistical software. Examples are drawn primarily from economics, education, psychology, sociology, political science, biology and medicine. Topics include introductory design of experiments, data acquisition, graphical exploration and presentation, descriptive statistics, one- and two-sample inferential techniques, simple/multiple regression, goodness of fit and independence, one-way/two-way analysis of variance (ANOVA). Written reports link statistical theory and practice with communication of results. Recommended for students pursuing quantitatively-based careers. Prerequisites: MTH 112, MTH 121, placement exemption or permission of the statistics program coordinator. Offered fall and spring.
STS 213.  **SURVEY SAMPLING METHODS**  
An introduction to the concepts and methods of statistical reasoning associated with sample surveys. This course emphasizes rationales, applications and interpretations of sampling strategies used for estimation. Advanced statistical software such as SAS or SPlus may be used. Case studies of survey methods are drawn primarily from the social sciences while field sampling applications to ecological and environmental research may be used. Topics include survey design issues, simple random sampling, stratified sampling, single and two-stage cluster sampling, systematic sampling, parameter estimation and sample size calculation. Written reports link statistical theory and practice with communication of results. Prerequisite: MTH 112, MTH/STS 212 or permission of the statistics program coordinator. Offered fall of odd-numbered years.

STS 232.  **STATISTICAL MODELING**  
This course emphasizes rationales, applications and interpretations of regression methods using a case study approach. Advanced statistical software such as SAS or SPlus may be used. Topics include simple linear regression, multiple linear regression, indicator variables, robustness, influence diagnostics, model selection, logistic regression for dichotomous response variables and binomial counts and non-linear regression models. Written reports link statistical theory and practice with communication of results. Prerequisite: MTH/STS 212 or permission of the statistics program coordinator. Offered spring of even-numbered years.

STS 256.  **APPLIED NONPARAMETRIC STATISTICS**  
This course focuses on data-oriented approaches to statistical estimation and inference using techniques that do not depend on the distribution of the variable(s) being assessed. Topics include classical rank-based methods, as well as modern tools such as permutation tests and bootstrap methods. Advanced statistical software such as SAS or SPlus may be used, and written reports will link statistical theory and practice with communication of results. Prerequisite: MTH/STS 212 or permission of the statistics program coordinator. Offered spring of odd-numbered years.

STS 325.  **DESIGN AND ANALYSIS OF EXPERIMENTS**  
This course explores methods of designing and analyzing scientific experiments to address research questions. Emphasis is placed on statistical thinking and applications using real data, as well as on the underlying mathematical structures and theory. Topics include completely randomized designs, randomized block designs, factorial treatment designs, hierarchical designs, split-plot designs and analysis of covariance. Advanced statistical software such as SAS or SPlus may be used, and written reports will link statistical theory and practice with communication of results. Prerequisite: MTH/STS 212 or permission of the statistics program coordinator. Offered fall of even-numbered years.

STS 327.  **STATISTICAL COMPUTING**  
An intermediary course in statistical computing using both R and SAS software. This course introduces the software R with an emphasis on utilizing its powerful graphics and simulation capabilities. This course also emphasizes issues with messy data entry, management, macro writing and analysis using SAS software. Topics include using computer software for data entry, sub-setting data, merging data sets, graphical descriptive statistics, numerical descriptive statistics, macros, standard statistical analysis using SAS and R, creating functions in R and simulations in R. Prerequisite: MTH/STS 212, or permission of the statistics program coordinator. Offered Winter Term.

MTH/STS 341.  **PROBABILITY THEORY AND STATISTICS**  
Topics include axiomatic probability, counting principles, discrete and continuous random variables and their distributions, sampling distributions, central limit theorem, confidence intervals and hypothesis testing. Prerequisite: MTH 221. Offered fall of even-numbered years.
STS 342. **STATISTICAL THEORY**  
This course offers an introduction to theoretical concepts in mathematical statistics. Topics include introduction to the limit theorems and the theory of point estimation, interval estimation, tests of hypotheses and likelihood ratio tests. Although this is primarily a proofs-based course, advanced statistical software such as SAS or R may be used. Prerequisites: STS/MTH 212, MTH 221, and MTH/STS 341 or permission of the statistics program coordinator. Offered spring of odd-numbered years.

**MTH/STS 460. SEMINAR I**  
This course prepares mathematics and statistics majors for Seminar II, the capstone seminar, by instruction and experience in library research and formal oral presentations on advanced mathematical and statistical topics selected by the instructor and students. Prerequisite: Junior/senior standing or permission of the department. Offered spring.

**MTH/STS 461. SEMINAR II**  
In this capstone experience for senior mathematics and statistics majors, students conduct extensive research on a mathematical or statistical topic and formally present their work in writing and orally. Course requirements may include a satisfactory score on the ETS major field achievement test depending on major. Prerequisite: MTH/STS 361 and junior/senior standing or permission of the department. Offered fall.

**STS 481. INTERNSHIP IN STATISTICS**  
The internship provides advanced work experiences in some aspect of statistical science and is offered on an individual basis when suitable opportunities can be arranged. Prerequisite: permission of the statistics program coordinator.

**STS 491. INDEPENDENT STUDY**

**STS 499. INDEPENDENT RESEARCH IN STATISTICS**
Students engage in independent research or consulting related to the field of statistics. Research is conducted under supervision of statistics faculty. Prerequisite: Permission of the statistics program coordinator.

**Strategic Communications**

Strategic Communications explores the process and techniques for how an organization communicates with its many publics. The organization may be corporate, nonprofit or governmental, and the forms of communication include public relations and advertising.  
(See Communications for additional program requirements and course descriptions)

A major in Strategic Communications requires the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GST 115</td>
<td>Public Speaking</td>
<td>2 sh</td>
</tr>
<tr>
<td>COM 100</td>
<td>Communications in a Global Age</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 110</td>
<td>Media Writing</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 220</td>
<td>Digital Media Convergence</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 232</td>
<td>Public Relations and Civic Responsibility</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 312</td>
<td>Strategic Writing</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 322</td>
<td>Corporate Publishing</td>
<td>4 sh</td>
</tr>
<tr>
<td>COM 323</td>
<td>Corporate Video</td>
<td></td>
</tr>
<tr>
<td>COM 350</td>
<td>Web Publishing</td>
<td></td>
</tr>
<tr>
<td>COM 362</td>
<td>Communication Research</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
Communications

COM 381 Communications Internship 1 or 2 sh
COM 400 Media Law and Ethics 4 sh
COM 452 Strategic Campaigns 4 sh
COM 495 Great Ideas: Capstone in Communications 2 sh

Choice of additional courses to total at least 52 COM hours

In addition, at least one School of Business course selected from the following:

- ECO 111 Principles of Economics 4 sh
- BUS 303 Introduction to Management
- BUS 304 Introduction to Marketing
- ACC 201 Principles of Financial Accounting
- FIN 303 Introduction to Finance

Communications Total 52 sh

OVERALL TOTAL 58 sh

Theatre Arts

Chair, Department of Performing Arts: Professor Rubeck
Professor: McNeela
Associate Professors: Gang, Otos, Sabo, J. Smith, Wahl, Webb
Assistant Professors: K. Green, M. Smith, Taylor-Hart
Adjuncts: Flannery, Hill, Johnson, Patterson, Sommers, Szabo, West

The study of theatre arts can be a vital part of a liberal arts education. Creativity, collaboration, problem solving, communication skills and critical thinking are all enhanced by this study, regardless of the student’s eventual career goals.

The Department of Performing Arts offers a Bachelor of Fine Arts (B.F.A.) degree in Theatre Arts with an acting emphasis, a Bachelor of Arts (A.B.) degree in Theatrical Design and Production and a Bachelor of Arts (A.B.) degree in Theatre Studies. A minor is also available. The B.F.A. degree in acting is intended for the student who wishes to pursue a professional career in theatre. Students who complete this degree may also pursue further graduate training. The A.B. degree in theatrical design and production is intended for the student who wishes to pursue a career in professional theatrical production or design. Students who complete this degree may also pursue further graduate training. The A.B. in theatre studies is a liberal arts degree from which students may pursue various career options, including possible graduate study.

Please note that an audition is required for entry to the B.F.A. acting program and an interview/portfolio showing is required for entry to the A.B. theatrical design and production program. The A.B. in theatre studies is open-enrollment — no interview or audition is required.

The course of study within all three degrees emphasizes a thorough grounding in fundamental areas of the theatre (acting, design and production, and theatre history and literature.) The B.F.A. degree in acting then explores script analysis, directing and intense training in acting. The A.B. degree in theatrical design and production explores script analysis, directing and a full range of courses in design and production. The A.B. degree in theatre studies is completed with a series of electives selected by the student, reflecting their primary interests in the art form. To provide practical application of coursework, students are expected to participate actively in department productions. For those interested in a career in theatre,
regular opportunities exist for contact with the professional world through master classes, guest artists and participation in regional and national conferences, conventions, auditions and competitions.

The minor in Theatre Arts is designed for the general theatre enthusiast. Students complete a study of the base-level skills in performance, production and theory, followed by advanced study in a selected area. The purpose of this study is to create more informed audience members and avocational participants.

**A major in Theatre Arts (B.F.A. degree, acting emphasis) requires the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE 120</td>
<td>Acting I</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 210</td>
<td>Technical Production in Theatre</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 220</td>
<td>Acting II</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 221</td>
<td>Acting III</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 222</td>
<td>Fundamentals of Make-up Design and Application</td>
<td>2 sh</td>
</tr>
<tr>
<td>THE 225</td>
<td>The Dynamic Instrument</td>
<td>1 sh</td>
</tr>
<tr>
<td>THE 226</td>
<td>Vocal Production II</td>
<td>2 sh</td>
</tr>
<tr>
<td>THE 227</td>
<td>Movement II</td>
<td>1 sh</td>
</tr>
<tr>
<td>THE 301</td>
<td>Theatre History and Literature I</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 302</td>
<td>Theatre History and Literature II</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 325</td>
<td>Vocal Production III</td>
<td>1 sh</td>
</tr>
<tr>
<td>THE 326</td>
<td>Vocal Production IV</td>
<td>1 sh</td>
</tr>
<tr>
<td>THE 327</td>
<td>Movement III</td>
<td>1 sh</td>
</tr>
<tr>
<td>THE 328</td>
<td>Movement IV</td>
<td>2 sh</td>
</tr>
<tr>
<td>THE 331</td>
<td>Playscript Analysis</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 332</td>
<td>Play Direction</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 420</td>
<td>Acting V: Shakespeare</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 495</td>
<td>Senior Seminar I</td>
<td>2 sh</td>
</tr>
<tr>
<td>THE 496</td>
<td>Senior Seminar II</td>
<td>2 sh</td>
</tr>
<tr>
<td>Selections from any 300-400 level acting classes (including special topics)</td>
<td>8 sh</td>
<td></td>
</tr>
<tr>
<td>Any 300-400 level design course</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>Four semester hours of electives selected from the following:</td>
<td>4 sh</td>
<td></td>
</tr>
<tr>
<td>Private voice or studio dance (up to four credit hours total)</td>
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<tr>
<td>Additional hours of THE 320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winterstock theatre (up to four credit hours total)</td>
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</tr>
<tr>
<td>Theatre, dance or voice ensemble (up to four credit hours total)</td>
<td></td>
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</tr>
<tr>
<td>English or foreign language courses with a focus on dramatic literature (up to four credit hours total)</td>
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</tbody>
</table>

**TOTAL** | **68 sh**

**A major in Theatrical Design and Production (A.B. degree) requires the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE 115</td>
<td>B.A. Acting I</td>
<td>4 sh</td>
</tr>
<tr>
<td>THE 210</td>
<td>Technical Production in Theatre</td>
<td>4 sh</td>
</tr>
</tbody>
</table>
THE 101 Introduction to Theatre 4 sh
THE 115 B.A. Acting I 4 sh
THE 210 Technical Production in Theatre 4 sh
THE 215 B.A. Acting II 4 sh
THE 301 Theatre History and Literature I 4 sh
THE 302 Theatre History and Literature II 4 sh
THE 495 Senior Seminar 4 sh
Any 300-400 level design course 4 sh
Sixteen semester hours (at least eight semester hours at 300-400 level) selected from the following: 16 sh
Electives in THE courses
Any course in ENG or foreign language with a focus on dramatic literature.

TOTAL 48 sh

A minor in Theatre Arts requires the following courses:

THE 101 Introduction to Theatre 4 sh
THE 125 Acting for Nonmajors 4 sh
THE 210 Technical Production in Theatre 4 sh

Eight hours THE electives at the 300-400 level 8 sh

TOTAL 20 sh

THE 101. INTRODUCTION TO THEATRE 4 sh

Students explore the nature of theatre, how it is created and how it functions in society. Primary study covers the diversity of the art form, basic terminology and the event/audi-
ence relationship. Performance reaction papers, creative projects and lab hours are required. Offered fall and spring.

THE 110. THEATRE WORKSHOP 2-4 sh
Students work with a professor to earn credit for hands-on experiences in theatrical production. Maximum four semester hours credit. Offered fall, winter and spring.

THE 115. B.A. ACTING I 4 sh
This course is specifically designed to meet the needs of the A.B. theatre studies and theatrical design and production majors. Students will explore topics related to acting and establish a foundation of acting skills through work on scenes and monologues from realistic plays. Students will also develop critical and other observational skills by writing reaction papers on plays they attend. Prerequisite: A.B. theatre studies or theatrical design and production majors or permission of instructor. Offered spring.

THE 120. ACTING I 4 sh
Students are introduced to and practice the Meisner technique, starting with basic repetition, continuing through and including the final improvisation. The semester ends with scene work incorporating the moment to moment listening skills acquired from the Meisner exercises. Prerequisite: B.F.A. theatre arts/music theatre majors or permission of instructor. Offered fall.

THE 125. ACTING FOR NONMAJORS 4 sh
This course is designed to meet the interests of the nonmajor. With this course’s dual focus, students gain experience in acting and examine topics such as the art of acting, leading to a more informed audience respondent. Performance reaction papers are required. Offered fall and spring.

THE 210. TECHNICAL PRODUCTION IN THEATRE 4 sh
Students learn the basics of theatrical production in scenery and lighting, including fundamental drafting skills. An intensive hands-on lab is required. Offered fall.

THE 215. B.A. ACTING II 4 sh
This course is specifically designed to meet the needs of the A.B. theatre studies majors. Students will increase their skills and understanding of the work of the actor through continued work on scenes and monologues from plays with a wide variety of styles. Students will further develop their critical and observational skills by writing reaction papers on plays they attend. Prerequisite: THE 115. Offered fall.

THE 220. ACTING II 4 sh
Students prepare scenework exercises to continue developing acting skills with focus on realistic drama approached through a Stanislavski-based methodology. Performance reaction papers are required. Prerequisite: THE 120. Offered fall.

THE 221. ACTING III 4 sh
This is an advanced course in performance skill for B.F.A. music theatre and B.F.A. theatre arts students only. Students are introduced to advanced Meisner exercises that teach the art of the impediment and cause-and-effect listening and responding through the physical instrument, text specificity using standard nursery rhymes and the building of character through point of view exercises utilizing Master’s Spoon River Anthology. The semester ends with scene work designed to incorporate the various skills taught in exercise. Prerequisite: THE 220. Offered spring.

THE 222. FUNDAMENTALS OF MAKE-UP DESIGN AND APPLICATION 2 sh
Students learn the basic art of two- and three-dimensional stage make-up design and application, including corrective, age, fantasy and prosthetics. Students must purchase a make-up kit. Offered fall and spring.

THE 223. THEATRE ENSEMBLE 1 sh
Students earn credit for performing in department productions. This course is repeatable. Prerequisite: Admission by audition only. Offered fall and spring.
THE 225. THE DYNAMIC INSTRUMENT 1 sh
This course is an experiential investigation of the vocal/physical instrument, designed to increase the actor’s awareness and expressive use of the instrument. Focus will be on the release of tensions and behaviors that diminish the efficiency of communication, as well as warm-up techniques for rehearsal and performance. Prerequisite: B.F.A. acting majors or permission of instructor only. Offered fall.

THE 226. VOCAL PRODUCTION II 2 sh
This course is designed to increase the actor’s understanding of their vocal instrument, and the range of choices they can consciously employ as a dynamic communicator and an impersonator of human behavior. Students will examine the physical actions that produce identifiable sounds of human speech, with special emphasis on the sounds of American English. Study will include the manner in which these speech actions are rendered in print by use of the symbols of the International Phonetic Alphabet. Prerequisite: THE 225, B.F.A. acting majors or permission of instructor only. Offered each spring.

THE 227. MOVEMENT II 1 sh
This course is designed to expand the actor’s developing awareness of their physical instrument and the flexible and expressive use of the instrument through a process of experiential investigation. Offered spring.

THE 301. THEATRE HISTORY AND LITERATURE I 4 sh
Students explore the origins of the art form and its development through the 17th century, emphasizing understanding the historical context of the text and its performance conditions and methods by studying representative plays of each period. A major research assignment is required. Offered fall.

THE 302. THEATRE HISTORY AND LITERATURE II 4 sh
Students further explore the evolution of the art form from the 17th century to the present with emphasis on understanding the historical context of the text and its performance conditions and methods by studying representative plays of each period. A major research assignment is required. Offered spring.

THE 310. ADVANCED PROJECTS IN THEATRE 2-4 sh
Advanced, experienced theatre students earn credit for assuming major responsibilities in department productions. May be repeated for credit. Prerequisites: Permission of instructor, availability of projects. Offered fall, winter and spring.

THE 320. ACTING IV: SPECIAL TOPICS 2-4 sh
In this course for advanced performers, each semester examines a different topic such as audition techniques, stage dialects, acting for the camera and period style. Performance reaction papers are required. May be repeated for credit. Prerequisites: THE 220, 221 or permission of instructor, majors only. Offered fall and spring.

THE 321. ACTING FOR THE CAMERA 4 sh
This course will provide an introductory examination and exploration of the technique of acting for the camera. Students will learn to apply their previous acting training to the specific demands of this medium. Prerequisites: THE 220, 221 or permission of instructor. Offered fall.

THE 322. STAGE COMBAT 4 sh
This course is designed to develop the actor’s ability to perform, in both a safe and theatrically effective manner, plays that represent physical violence. It will develop a level of proficiency in unarmed combat and explore techniques for working with weapons. Emphasis will be placed on melding the technical/athletic aspect of stage combat with effective use of the actor’s craft. Prerequisites: THE 220, 221 or permission of instructor. Offered alternate spring semesters.

THE 323. DIALECTS 2-4 sh
Students will learn to employ the technical process of transforming an author’s text to a given accent or dialect using the International Phonetic Alphabet and Transatlantic Speech,
as well as the physicality of the life and character of the speech. Prerequisite: THE 220, 221 or permission of instructor.

THE 325. VOCAL PRODUCTION III 1 sh
This course is designed to meet the needs of the intermediate B.F.A. acting student. Students will continue to learn to apply vocal exercises and warm-ups by designing their own versions based on the information provided in THE 225 and 226. Students will learn how to use their phonetic tools to analyze both classical and contemporary dialogue and verse to better understand why a playwright has chosen specific sounds and words, and how as performers they might bring these sounds to organic life. They will learn how to use sounds as tools for organic acting. They will be introduced to scansion technique for verse speaking, phonetic length and technical analysis of both poetic and contemporary writing. Prerequisites: THE 225, 226, acting majors or permission of instructor only. Offered spring.

THE 326. VOCAL PRODUCTION IV 2 sh
This course is designed to meet the needs of the upper-level B.F.A. acting major. Students will learn the technical process of transforming an author’s text to a given accent or dialect and to organically produce the voice of a foreign or regional speaker. Prerequisites: THE 225, 226, 325, acting majors or permission of instructor only. Offered fall.

THE 327. MOVEMENT III 1 sh
This course is designed to continue developing the actor’s control over, and expressive use of, their physical instrument including making choices for characterization. Students will also explore the basic principles that govern the safe and effective theatrical representation of violence. Offered spring.

THE 328. MOVEMENT IV 2 sh
This course is designed to continue developing the actor’s control over, and expressive use of, their physical instrument, with particular focus on physical choices that honor the specific requirements of period text. The class will also explore working with weapons in presenting scenes of theatrical violence. Offered fall.

THE 330. PLAYWRITING 4 sh
Students learn the skills, working methods and processes of theatrical playwriting by studying playscripts, known playwrights and strenuous writing assignments. Study culminates in a completed one-act script.

THE 331. PLAYSCRIPT ANALYSIS 4 sh
Students learn various methods of analyzing playscripts as a basis for interpretation for all theatre artists. Prerequisites: THE 101, 115; 120 or 125; or permission of instructor. Offered fall.

THE 332. PLAY DIRECTION 4 sh
Working methods of the stage director, from analysis through rehearsal, are the focus of this study, which culminates in a scene project by each student. Discussion emphasizes decision making and communicating with actors. Production reaction papers are required. Prerequisite: THE 331. Offered spring.

THE 341. LIGHTING DESIGN AND STAGE ELECTRICS 4 sh
This course will provide an exploration into the process and principles of stage electrics and theatrical lighting design. Topics will include equipment, procedures, drafting skills and the interpretation of theatrical literature in the development of artistic concepts as related to the creation and execution of lighting designs. Prerequisite: THE 210 or permission of instructor. Offered alternate fall semesters.

THE 363-64. WINTERSTOCK THEATRE 4 sh
Students earn credit for participation in departmental productions during winter term. Prerequisite: By audition only. Offered Winter Term.
**THE 420. ACTING V – ACTING SHAKESPEARE**  
This course focuses on the demands of performing Shakespeare’s heightened language. Students will learn to identify actable poetic devices such as alliteration, imagery and rhythm to make acting choices that fully communicate the character’s needs and emotional condition. Offered fall.

**THE 440. SPECIAL TOPICS IN THEATRE PRODUCTION AND DESIGN**  
Students conduct an in-depth examination of a different topic each semester, such as scenic design, lighting design, costume design, production stage management and technical direction. Production reaction papers are required. May be repeated for credit. Prerequisite: THE 210.

**THE 495. SENIOR SEMINAR I**  
This course begins the capstone experience for the senior theatre arts major, exploring a variety of topics and skills to help prepare the student for graduate study or work in the profession. Additionally, each student must complete a major project, demonstrating proficiency in their field of study. This project may be complete either in this course or in THE 496, both of which are required for the degree. Offered fall.

**THE 496. SENIOR SEMINAR II**  
This course completes the capstone experience for the senior theatre arts major, continuing the exploration of topics and skills to help prepare the student for graduate study or entry to the profession. Additionally, each student must complete a major project, demonstrating proficiency in their field of study. This project may be complete either in this course or in THE 495, both of which are required for the degree. Offered spring.

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**Women’s/Gender Studies**

*Coordinator: Assistant Professor Gallagher*

The Elon Women’s/Gender Studies program offers an interdisciplinary collection of courses focusing on the study of women and the ways men’s and women’s lives have been organized around gender and gender inequality. Diverse faculty members offer rigorous, interesting courses that utilize up-to-date scholarship. The extensive course offerings differ from year to year and come from a variety of fields, including upper-level interdisciplinary seminars.

Courses in the WGS minor raise awareness of how gender interacts with race, ethnicity, nationality, socioeconomic class, religion, sexual orientation and age to affect human experience. Courses emphasize critical analysis and reflection about gender that encourages critical thinking about the world around us. WGS minors, who are both male and female, integrate knowledge across disciplines and seek to connect knowledge through applied experiences. They are educated citizens committed to justice and equality.

A minor in WGS complements any major and contributes to personal growth as well. Elon WGS minors go to graduate school; they have careers in social services, business, politics, teaching and many other fields; and they make a distinctive impact on their families and communities.

An independent major in Women’s/Gender Studies is also possible.

*A minor in Women’s/Gender Studies requires the following courses:*  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>WGS 300</td>
<td>Current Controversies in Feminism</td>
<td>4 sh</td>
</tr>
<tr>
<td>ANT 324 WG</td>
<td>Culture and Sex</td>
<td></td>
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<tr>
<td>ANT 329 WG</td>
<td>Women, Culture and the World</td>
<td></td>
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<tr>
<td>ANT 382 WG</td>
<td>Gender and Archeology</td>
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Sixteen semester hours selected from the following: 16 sh
ARH 320 WG  Issues in Contemporary Art
DAN 320 WF  Dance and Gender
ECO 317 WG  Gender and Development
ENG 333 WG  Women in Literature: Feminist Approaches
ENG 356 WG  The Novel: British Women Writers
ENG 361 WG  Gender Issues in Cinema
GST 212 WG  Women, Men and Society
GST 257 WG  Women, Culture and Development
GST 269 WG  Women and global Leadership
GST 322 WG  Wonder Women: History and Rhetoric
GST 338 WG  American Adolescence
GST 344 WG  The Camera Eye, the Camera I
GST 345 WG  Gender issues in Education
GST 346 WG  Childbirth
GST 361 WG  Sex and Society
GST 369 WG  Men and Masculinity
GST 395 WG  The Politics of Beauty
GST 403 WG  The Other Others: Francophone Women’s Voices
GST 406 WG  Women’s Health Issues
GST/MUS 469 WG  Women in Music
HST 355 WG  Oral History: N.C. Women
HST 364 WG  History of Women in the United States
HST 466 WG  Women and Gender in Antiquity
HSS 311 WG  Social Policy and Inequality
HSS 349 WG  Violence in Families
INT/POL 141 WG  International Relations
PHL 320 WG  Reclaiming Democracy
PHL 345 WG  Feminist Philosophy
POL 384 WG  Women and American Politics
PSY 215 WG  Psychology of Personal Relationships
PSY 315 WG  Psychology of Sex and Gender
PSY 367 WG  Psychological Perspectives on Human Sexuality
REL 201 WG  Buddhist Traditions
REL 326 WG  Sex Lives of Saints: Sex, Gender and Family in Early Christianity
REL 343 WG  Women, Violence and Resistance
REL 360 WG  Hindu Goddesses: From Myths to Movies
REL 361 WG  Women, Religion and Ethnography
REL 363 WG  Women in Islam: Veneration, Veils and Voices
SOC 311 WG  Sociology of Families
SOC 312 WG  Sociology of Interpersonal Violence and Relationship Health
SOC 345 WG  Sociocultural Perspectives on Gender
SOC 389 WG  Women, Culture and the World
WGS 371-79  Special Topics in Women’s/Gender Studies
<table>
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<tr>
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<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>WGS 461-69</td>
<td>Seminars on Various Topics</td>
<td>4 sh</td>
</tr>
<tr>
<td>WGS 481</td>
<td>Internship in Women’s/Gender Studies</td>
<td>(one to four semester hours) or discipline-specific internship cross-listed with WGS</td>
</tr>
<tr>
<td>WGS 491</td>
<td>Independent Study (1-4 sh)</td>
<td>4 sh</td>
</tr>
<tr>
<td>WGS 499</td>
<td>Independent Research (1-4 sh)</td>
<td>4 sh</td>
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</table>

**TOTAL** **20 sh**

*Other courses cross-listed with disciplines will be offered from time to time with a suffix “WG” or parenthetical phrase indicating that they may be used to fulfill Women’s/Gender Studies requirements.

**WGS 300. CURRENT CONTROVERSIES IN FEMINISM**

This interdisciplinary course, designed for students ready to do advanced work, will explore several of the most highly contested issues within feminist thought and activism. Particular attention will be paid to writings by women marginalized by race, class, nationality and/or sexuality. Students will be expected to undertake a research project and/or activism. Prerequisite: Two courses in the WGS curriculum. Offered spring semester.

**WGS 371-79. SPECIAL TOPICS IN WOMEN’S/GENDER STUDIES**

**WGS 461-69. SEMINARS ON VARIOUS TOPICS**

These interdisciplinary seminars combine two or more approaches in feminist and/or gender scholarship, with varying concentrations on significant topics. Prerequisites: Junior standing and two WGS courses.

**WGS 481. INTERNSHIP IN WOMEN’S/GENDER STUDIES**

Teaching, research, service and occupational internships focusing on women/gender issues are offered. Prerequisites: Two WGS courses and permission of coordinator.

**WGS 491. INDEPENDENT STUDY**

**WGS 499. INDEPENDENT RESEARCH**