

- CHM 432. PHYSICAL ORGANIC CHEMISTRY** 2 sh  
The study and applications of Hückel molecular orbital theory toward the understanding of the mechanisms of selected chemical reactions. The focus will be on empirical methods to derive mechanisms including linear free energy relationships and reaction kinetics. Techniques to be covered include photoelectron spectroscopy (PES) and computational chemistry (CC). Prerequisite: CHM 334. Offered spring.
- CHM 461. SEMINAR** 1 sh  
Students make presentations after they do individual library research. Student seminars are supplemented with seminars by practicing scientists. All chemistry-oriented students are encouraged to attend. Credit for junior and senior majors only or by permission of the instructor. Completion of this course satisfies the oral competency requirement for the B.S. and B.A. major in Chemistry. Course is two semesters in length with 0.5 sh each semester. Students must take both semesters. Offered fall and spring.
- CHM 471-479. 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. Prerequisites: CHM 212/214.

## Classical Studies

*Coordinator: Professor Gill*

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.

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

Twenty semester hours taken from the list below and/or from other approved courses. At least eight of these 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 and History I: Gods and Empires
ARH	211	Art and History II: Cathedrals to Conquest
ARH	343	Renaissance Art History
CLA	110	Introduction to Classical Studies
ENG	221	British Literature I
ENG	321	Classical Literature
ENG	322	Medieval Literature
ENG	323	Renaissance Literature
FNA	265	Studies in Italy/ELR
FNA	313	British Art and Architecture
GRK	110	Beginning Greek
GRK	210	Intermediate Greek

CLASSICAL STUDIES

GRK	310	Advanced Greek	
HST	111	Europe and the Mediterranean World to 1660	
HST	323	Making of the English Nation to c.1660	
LAT	121	Beginning Latin I	
LAT	122	Beginning Latin II	
MUS	315	The Music of Ancient Times through Mozart	
PHL	331	Ancient Philosophy	
PHL	332	Medieval Philosophy	
PHL	355	Philosophy of Religion	
POL	300	Introduction to Political Thought	
REL	111	The Old Testament Story	
REL	112	Introduction to the New Testament	
REL	321	Unearthing the Bible	
REL	322	Old Testament Prophets	
REL	324	Book of Job	
REL	325	Revelation and other Apocalyptic Literature	
REL	326	Life and Thought of Paul	
REL	327	Lost Books of the Bible	
REL	329	Jesus and the Gospels	
REL	335	Christianity: Ancient and Medieval	
REL	355	Philosophy of Religion	
THE	301	Theatre History and Literature I	
<b>TOTAL</b>			<b>20 sh</b>

In addition to these catalog courses, occasional courses with special topics in Classical Studies will be offered. Examples include Hebrew 110, 210, 310; HST/REL 371, The Ancient World; FRE 371 and SPN 371, Special Topics, as appropriate.

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

This course gives the student a chance to find out more about the Classical elements that have shaped Western civilization. The course looks at the literature, art and architecture of the ancient Greek and Roman worlds. It studies how our Classical heritage has affected later ages and cultures, including our own. Counts as partial fulfillment of the General Studies Expression requirement. Offered in fall semesters.

**Coaching**

See Physical Education and Health

**Communications**

See Journalism and Communications

## Computing Sciences

*Chair: Professor Powell*

*Associate Professors: Heinrichs, Schuette, B. Taylor, Yap*

*Assistant Professors: Conklin, Duvall, Hightower*

*Senior Lecturer: Kleckner*

*Lecturer: Hollingsworth*

*Adjuncts: Allen, Bryan, Joyce*

The Department of Computing Sciences at Elon University offers A.B. and B.S. degrees in Computer Science, A.B. and B.S. degrees in Computer Information Systems, and minors in Computer Science and Computer Information Systems. A concentration area in Management Information Systems (for majors in Business Administration) and minors in Multimedia Authoring or Geographical Information Systems are also available options.

The discipline called Computer Science emphasizes problem solving based upon mathematical logic, the analysis of alternative solutions, the use of the scientific method of hypothesis development and testing, and the link between principles, creativity and implementation techniques. The experiences, challenges and discipline of computer science translate well into other areas and interests. The discipline is constantly changing; the student must be able to communicate well and learn new concepts throughout life. The Computer Science program at Elon is a rigorous one emphasizing the application and theory of computation. Students study programming languages, operating systems, algorithm analysis, artificial intelligence, game programming and parallel and distributed problem solving using computer technology.

The Computer Information Systems discipline centers on the development of systems that will improve the performance of people in organizations. Information systems are vital to problem identification, analysis and decision making. These skills are integral parts of many fields of study. Students in information systems apply problem-solving techniques and programming skills to the design, implementation and maintenance of these information systems. Computer Information Systems at Elon is a hands-on program that gives the student a solid foundation in information systems, including knowledge and skills about networks, Web development, database development, systems analysis, application development and project management.

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 over 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 level.

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

CSC	130	Computer Science I	4 sh
CSC	230	Computer Science II	4 sh
CSC	330	Distributed Computing	4 sh
CSC	331	Algorithm Analysis	4 sh

CSC	335	Programming Languages	4 sh
CSC	342	Computer Systems	4 sh
CSC	442	Mobile Computing	4 sh
CSC	462	Software Development/Capstone	4 sh
MTH	206	Discrete Structures	4 sh
Select one course from the following:			4 sh
MTH 221		Calculus and Analytic Geometry 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			
<b>or</b>			
Quantitative Analysis: if core math requirement was MTH 112, then MTH 121 Calculus and Analytic Geometry I			
Two courses from the following:			8 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			
<b>TOTAL</b>			<b>52 sh</b>

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

CSC	130	Computer Science I	4 sh
CSC	230	Computer Science II	4 sh
CSC	330	Distributed Computing	4 sh
CSC	331	Algorithm Analysis	4 sh
CSC	335	Programming Languages	4 sh
CSC	342	Computer Systems	4 sh
CSC	442	Mobile Computing	4 sh
CSC	462	Software Development/Capstone	4 sh
MTH	206	Discrete Structures	
Select one course from the following:			4 sh
MTH 221		Calculus and Analytic Geometry 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			
<b>or</b>			
Quantitative Analysis: if core math requirement was MTH 112, then MTH 121 Calculus and Analytic Geometry I			
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		
Either:		8 sh
CHM 111, 112, 113, 114, <b>or</b>		
PHY 113, 114, 117, 118, <b>or</b>		
BIO 111, 112, 113, 114		
<b>TOTAL</b>		<b>64 sh</b>

**A Bachelor of Arts in Computer Information Systems** requires the following courses:

CIS 216	Programming in a Visual Environment	4 sh
CIS 245	Operating Systems and Networks	4 sh
CIS 301	Database Management and Analysis	4 sh
CIS 330	Systems Analysis and Design	4 sh
CIS 430	Project Implementation and Management	4 sh
MTH 206	Discrete Structures	4 sh
Elective chosen from any 300/400 level courses in CIS or CSC 230		4 sh
Twelve hours from one of the following concentrations:		12 sh

***Web Development***

CIS 310	User-Centered Web Design	
CIS 325	Web Development	
CSC 130	Computer Science I	

***Enterprise Networks***

CIS 211	Management Information Systems	
CIS 320	Building Collaborative Environments	
CIS 345	Network Design and Security	

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		
<b>or</b>		
Quantitative Analysis: if core math requirement was MTH 112, then MTH 116 Applied Calculus <b>or</b> MTH 121 Calculus and Analytic Geometry I		

<b>Total</b>		<b>44 sh</b>
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**A Bachelor of Science in Computer Information Systems** requires the following courses:

CIS 216	Programming in a Visual Environment	4 sh
CIS 245	Operating Systems and Networks	4 sh
CIS 301	Database Management and Analysis	4 sh
CIS 330	Systems Analysis and Design	4 sh
CIS 430	Project Implementation and Management	4 sh
MTH 206	Discrete Structures	4 sh

Elective chosen from any 300/400 level courses in CIS or CSC 230	4 sh
Twelve hours from one of the following concentrations:	12 sh
<b>Web Development</b>	
CIS 310 User-Centered Web Design	
CIS 325 Web Development	
CSC 130 Computer Science I	
<b>Enterprise Networks</b>	
CIS 211 Management Information Systems	
CIS 320 Building Collaborative Environments	
CIS 345 Network Design and Security	
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 116 Applied Calculus or MTH 121 Calculus and Analytic Geometry I	
Information Systems Environment: Select any four courses from the Business Administration minor	16 sh
<b>Total</b>	<b>60 sh</b>

**A minor in Computer Science** requires the following:

CSC 130 Computer Science I	4 sh
CSC 230 Computer Science II	4 sh
Eight semester hours of 300-400 level Computer Science (CSC) courses	8 sh
One additional course from CSC or CIS at the 200 level or above	4 sh
<b>Total</b>	<b>20 sh</b>

**A minor in Computer Information Systems** requires the following:

CIS 216 Programming in a Visual Environment	4 sh
CIS 245 Operating Systems and Networks	4 sh
CIS 301 Database Management and Analysis	4 sh
At least one course from the following:	4-8 sh
CIS 325 Web Development	
CIS 330 Systems Analysis and Design	
CIS 345 Network Design and Security	
At most one course from the following:	0-4 sh
CIS 211 Management Information Systems	
CIS 310 User-Centered Web Design	
CIS 320 Building Collaborative Environments	
CSC 130 Computer Science I	
<b>Total</b>	<b>20 sh</b>

**Multimedia Authoring Minor:** See Multimedia Authoring

**Geographic Information Systems Minor:** See Geographic Information Systems

**Concentration in Management Information Systems:** See Business Administration

## Computer Information Systems

- CIS 112. PROBLEM SOLVING WITH SPREADSHEET APPLICATIONS** 2 sh  
 This course involves projects requiring quantitative reasoning. Microsoft Excel is used for what-if analysis and graphical presentation of data. Fundamental functions, worksheet database features and the use of Excel to create static and dynamic Web pages are covered. Prerequisite: None. Offered fall and spring.
- CIS 113. INTRODUCTION TO DATABASE SYSTEMS** 2 sh  
 This course uses a personal database system (Microsoft Access) to implement projects requiring the organization, manipulation and retrieval of data. Students learn how to analyze and present their data using forms, reports and views. Basic and advanced techniques for data retrieval using elementary SQL and joining multiple tables are covered. No credit for students with CIS 211. Prerequisite: None. Offered fall and spring
- CIS 114. INTRODUCTION TO WEB SITE DEVELOPMENT** 2 sh  
 This course develops projects which require the organization and presentation of information on Internet Web sites using HTML and a high-level tool. Prerequisite: None. Offered fall and spring.
- 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. Prerequisite: None. Offered fall and spring.
- CIS 216. PROGRAMMING IN A VISUAL ENVIRONMENT** 4 sh  
 This course utilizes a programming language with a visual development environment to implement computer applications. Common visual and data objects are incorporated into projects. Code is developed to respond to events induced on these objects by users or other code. Students design and present group and individual projects. Prerequisite: core math requirement or permission of the instructor. Offered fall and spring.
- CIS 220. COMPUTERS AND TEACHING** 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. Offered fall and spring.
- CIS 245. OPERATING SYSTEMS AND NETWORKS** 4 sh  
 This course introduces the fundamental concepts of operating systems and networks needed for today's client-server and distributed processing environments. Topics include resource and device management, process scheduling, and network connectivity. Students use current network operating systems to solve installation, configuration and maintenance problems involving hardware and software. Not available to students who have already completed CSC 342. Prerequisite: Core math requirement. Offered fall.
- CIS 301. 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. Students will learn SQL and will be able to design complex reports and queries to answer business problems. This course also provides a short introduction to

basic concepts of data analysis and data mining using simple descriptive statistics and SQL. Prerequisite: CIS 216 and CSC 130. Offered spring.

- CIS 310. USER-CENTERED WEB DESIGN 4 sh**  
 This course provides a complete overview of Web development, including theories of information architecture and user interface design. Students will develop Web sites of medium complexity after learning the basics of page markup and interactive Web programming. Prerequisite: None. Offered spring.
- CIS 320. BUILDING COLLABORATIVE ENVIRONMENTS 4 sh**  
 This course examines tools for knowledge sharing and content development, such as intranets, weblogs, instant messaging and content management systems. Students will gain an understanding of knowledge management techniques and applications through laboratory assignments, case studies and discipline-based research. Prerequisite: Sophomore standing or higher. Offered fall.
- CIS 325. WEB DEVELOPMENT 4 sh**  
 This course provides a complete overview of the Web site development process. Students will create complex, interactive Web sites. Prerequisite: CIS 301. Offered fall.
- 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. Offered fall.
- CIS 345. NETWORK DESIGN AND SECURITY 4 sh**  
 This course focuses on the design of networks for data and voice communications. Topics include data communications protocols and standards, local and wide area network design alternatives, voice transmission and security planning. Students gain hands-on experience using tools to diagram network designs and simulate network performances. Prerequisite: CIS 245 or CSC 342. Offered spring.
- CIS 371. SPECIAL TOPICS 1-4 sh**  
 Topics such as decision support and expert systems, data communications and networks, and design patterns are offered when demand is sufficient.
- CIS 430. PROJECT IMPLEMENTATION AND MANAGEMENT 4 sh**  
 Project teams identify a business situation requiring information systems (IS) improvement. Concepts and tools for analysis and design methodology are applied. The team carries this design through the implementation phase using appropriate CASE tools. This project is more in-depth than the simulation of CIS 330. Project documentation is presented in the form of a user's manual. Several class presentations are required throughout the semester, culminating with the final working software application. Prerequisite: CIS 330. Corequisite: CIS 345. Offered spring.
- CIS 450. SEMINAR IN INFORMATION SYSTEMS 4 sh**  
 The capstone experience for senior CIS majors involves a close review of the conceptual and theoretical foundations of the discipline. Contemporary issues, problems and trends in CIS are discussed. Students will complete a major research paper and presentation. Prerequisites: Senior standing and at least one 300-level CIS course. Offered spring.
- CIS 465. MIS STRATEGIES FOR E-BUSINESS 4 sh**  
 The MIS capstone course explores tactical and strategic management of information systems (IS) at the business unit and enterprise level. Students examine current IS issues facing specific industries — healthcare, banking and retail and also explore management of IS on a global scale and within various countries/regions. The course involves a project

focused on design and development of an e-Business software application. Prerequisite: CIS 325 or CIS 330. Offered spring.

- CIS 481. INTERNSHIP IN INFORMATION SYSTEMS 1-4 sh**  
Advanced work experiences in computer information systems (CIS) are offered on an individual basis when suitable opportunities can be arranged. Prerequisites: permission of instructor.
- CIS 491. INDEPENDENT STUDY 1-4 sh**
- CIS 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. Prerequisite: Eligibility as determined by the undergraduate research guidelines of Elon University and approval by the department.

### **Computer Science**

- CSC 111. BREAKING THE CODE 4 sh**  
This course “breaks the code” and mystique of computing for non-majors. A broad range of topics may be covered, including logical problem solving, the history of computing, the organization of data, social and ethical issues, and current research in computer science. Offered spring.
- CSC 130. COMPUTER SCIENCE I 4 sh**  
This introduction to programming and problem solving emphasizes applications from quantitative disciplines and incorporates weekly group practicum 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, linear data structures, software engineering, recursion and the social context of computing. Prerequisite: CSC 130. Offered fall and spring.
- CSC 330. DISTRIBUTED COMPUTING 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. Prerequisite: 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. Prerequisite: 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 which 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. CSC 351 is 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 alternating years.
- CSC 415. NUMERICAL ANALYSIS** **4 sh**  
 (Cross-listed with 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 335. Offered fall 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 explores the major technologies used by server side applications. Using a commercial application server, students will design and implement a significant programming project using either Enterprise JavaBeans or WebServices. Prerequisites: CSC 330, CSC 331. Offered spring 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. Prerequisite: CSC 331, CSC 342. Offered spring 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. Prerequisite: CSC 330, CSC 342. Offered spring.

- CSC 462. SOFTWARE DEVELOPMENT/CAPSTONE** 4 sh  
 This capstone course combines a range of topics integral to the specification, design, implementation 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, CSC 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. Prerequisites: 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. Prerequisite: Eligibility as determined by the undergraduate research guidelines of Elon University and approval by the department.

### Cooperative Education

*Director of Experiential Education: Assistant Professor P. Brumbaugh*  
*Assistant Professors: Allison, Donathan, Kosusko, Lipe, 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. CONDUCTING AN EFFECTIVE JOB SEARCH** 1 sh  
 This course helps 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. Offered fall and spring in a half-semester format.
- 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**

*Coordinator: Associate Professor McClearn*

The Criminal Justice program engages students in the interdisciplinary study of crime and criminal justice, primarily within the United States. Students will 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 will study both academic and applied aspects of the field. Ethical implications and critical analysis of issues will be stressed.

**A minor in Criminal Justice Studies** requires the following:

PSY	357	Criminal Behavior	4 sh
SOC	355	Criminology	4 sh
HUS	359	Criminal Justice	4 sh
Eight semester hours of electives selected from the following:			8 sh
CJS	371-9	Special Topics in Criminal Justice	
CJS	481	Internship in Criminal Justice	
CJS	491	Independent Study	
PHL	341	Philosophy of Law	
POL	324	Civil Liberties	
SOC	342	Social Deviance	
Other courses as approved by the program coordinator			
<b>TOTAL</b>			<b>20 sh</b>

**CJS 371-379. 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.