Academic Programs

Academic Programs include number representations, codes, switching theory, sequential circuits, comparators, arithmetic circuits, counters, memory implementation, and integrated circuit logic families.

C S 380 ARTIFICIAL INTELLIGENCE (3) Prerequisite: C S 241. Three hours lecture. This course is a study of the theoretical issues and programming techniques involved in artificial intelligence. Core topics include search, knowledge representation, and reasoning. Additional topics may include game theory, planning, understanding, natural language processing, machine learning, neural networks, genetic algorithms, expert systems, and real-time systems. Students develop competence in a language widely used for A.I. programming, typically LISP or PROLOG.

C S 385 INTERNET-BASED SYSTEMS (3) Prerequisite: C S 370. Three hours lecture. In this course students develop an intermediate-level proficiency in the use of HTML, Access, Visual Basic, VBScript, and SQL as applied to accessing databases over the World Wide Web. The student uses these development tools together to develop interactive web-based applications that access databases. Applications developed in the course utilize graphic images, tables, forms, frames, ASP, CGI programming and database interfaces in an interactive GUI environment.

C S 397 INDEPENDENT STUDY IN COMPUTER SCIENCE (1-3) Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing. This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

C S 398 SPECIAL TOPICS IN COMPUTER SCIENCE (1-3) [credit depends on topic] Prerequisite: A background of work in the discipline. This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

C S 399 INTERNSHIP IN COMPUTER SCIENCE (1-12) Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration. Internships occur in businesses or other institutions involved in computer science-related work. (See “Internships.”)

C S 451-452 SENIOR PROJECT (2,2) Prerequisites: C S 242 and senior standing. This is a capstone course in which the student proposes and completes an independent research or development project. Research projects involve review of significant literature and the writing of a major technical paper, which may require design, implementation, and evaluation of experimental systems. Development projects require full system specifications, system design and analysis, user documentation, and complete, well documented source code.

CRIMINOLOGY COURSES (CRIM)

CRIM 241 CRIMINOLOGY (3) This course is a sociological analysis of the nature and extent of criminal behavior in the United States and around the world. It reviews the past and current theories that attempt to explain the causes of criminal behavior. In addition, society’s response to crime, the criminal justice system, and its various components are examined.

CRIM 243 JUVENILE DELINQUENCY (3) The course examines the nature and extent of juvenile delinquency in the United States and other modern societies. It explores how juvenile delinquency differs from adult criminal behavior in its legal status, causes, and the ways society reacts to it. The juvenile justice system and its various components are examined.

CRIM 244 CRIMINAL JUSTICE PROCESS (3) This course presents a sociological analysis of the various practices and institutions that modern societies have created to deal with criminal behavior. The practices examined include probation, other community-based techniques, jail, prison, parole, and capital punishment. The consequences and effectiveness of each are analyzed.

CRIM 301 COMPARATIVE CRIMINAL JUSTICE (3) Prerequisite: CRIM 244. This course examines the world’s major criminal justice systems. In particular it analyzes the effects of history, culture
CRIM 320 VICTIMOLOGY (3) Prerequisite: CRIM 241. Victimology will provide a comprehensive overview of the process of victimization throughout our society. This course will also discuss the history of victimization, theories of victimization, and various categories of victimization, stratification and victim typologies. Specific topics will include the scope of victimization, restorative justice, victims’ rights, child abuse, elder abuse, international sex trafficking, and domestic violence.

CRIM 397 INDEPENDENT STUDY IN CRIMINOLOGY (1-3) Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing. This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

CRIM 398 SPECIAL TOPICS IN CRIMINOLOGY (1-3) [credit depends on topic] Prerequisite: A background of work in the discipline. This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her enrollment.

CRIM 399 INTERNSHIP IN CRIMINOLOGY (1-12) Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, supervising faculty, and School Dean prior to registration. This internship provides the student with a supervised work experience in a setting in which criminology is applied. Examples of work setting include, but are not limited to, law enforcement agencies, correctional agencies, and social service departments. Internships are developed by the student with the assistance from the criminology staff and/or the internship coordinator. (See “Internships.”)

CRIM 430 SENIOR RESEARCH CAPSTONE (3) Prerequisite: SOCI 372. This course is designed to be the capstone course in which the student, utilizing substantive and methodological knowledge accumulated through previous course work, will develop and test relevant research questions related to crime theories. The course culminates with the writing and presentation of a formal research paper.

ECONOMICS COURSES (ECON)

ECON 100 ECONOMIC PERSPECTIVES ON CURRENT ISSUES (3) This course applies economic thinking to contemporary issues using a non-technical approach. Topics include environmental issues, crime, poverty, health care, the global economy, and the role of government. This is an introductory course and is not a substitute for ECON 201 or 202.

ECON 101 FRESHMAN SEMINAR IN ECONOMICS (3) This theme-based course gives students exposure to economics early in their college career. Designed around the interests of the instructor, the course will provide students with the opportunity to use economic principles to explore an issue from multiple perspectives. Through in-depth study of a specific topic (e.g., clean energy, immigration, globalization, financial crises, health care economics, and slavery), students will be introduced to basic economic concepts as they develop their critical thinking and communication skills.

ECON 201 PRINCIPLES OF ECONOMICS-MICRO (3) This study of basic economic principles and the structure and functioning of a modern economy serves as an introduction to microeconomics.

ECON 202 PRINCIPLES OF ECONOMICS-MACRO (3) This study of basic economic principles and the structure and functioning of a private enterprise economy serves as an introduction to macroeconomic.

ECON 250 RESEARCH METHODS IN ECONOMICS (4) Prerequisite: General Education Math. Three hours lecture and two-hour lab. Basic mathematical and statistical tools are developed in this course. Topics include hypothesis testing and introductory regression analysis. Basic calculus, linear and matrix algebra, and other mathematical tools used in economic analysis are also developed. Emphasis is on applications of statistical and mathematical tools for economic analysis and on preparation for writing the senior thesis.