

COMPUTER SCIENCE AND INFORMATION SYSTEMS (CIS)

CIS1000C INTRODUCTION TO COMPUTER SCIENCE (3.00 Credits)

This course is designed to provide students with a broad perspective of the field of Computer Science, from core issues and concepts inherent to the discipline of computing, to the various sub-disciplines of computer science. Topics include: Number Systems and Data Representation; Computer Components and Architecture including Gates and Circuits; Problem Solving and Systems Development Methodologies; Low-Level and High-Level Programming Languages; Abstract Data Representations and Algorithms; Operating Systems, File Systems and Directories; Information Systems; Artificial Intelligence; Simulation, Graphics, and Other Applications; Networks and The World Wide Web.

Total Contact Hrs: 48.00

Lecture Hrs: 40.00

Lab Hrs: 8.00

Fees: LABORATORY FEE \$10.00

Complete all the courses in the following option:

- Pre or Corequisite: MAT1033 (minimum grade: C)

CIS1513C PROJECT MANAGEMENT (4.00 Credits)

This course examines the organization, planning, and controlling of projects and provides practical knowledge on managing project scope, schedule and resources. Topics include project life cycle, work breakdown structure and Gantt charts, network diagrams, scheduling techniques, and resource allocation decisions. Concepts are applied through team projects and tutorials using project management software. Practice will also be provided to thoroughly prepare students for the Project+ certification exam offered by CompTIA.

Total Contact Hrs: 64.00

Lecture Hrs: 32.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$80.00

CIS2028 INFORMATION SYSTEMS (3.00 Credits)

This course is designed to provide students with a foundational understanding of Information Systems (IS) as they apply to the computer industry. Topics will include Information Systems fundamentals; IS infrastructure; Organizational and business strategies for Information Systems; Information Systems for commerce and collaboration business intelligence and Enterprise Information Systems; security, privacy and ethics for Information Systems; Change Management and ITIL.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

Complete all the courses in the following option:

- Option 1 - Prerequisite: CIS1000C (minimum grade: C) and ENC1101 (minimum grade: C)

CIS2910C IT ENTREPRENEURSHIP CAPSTONE (3.00 Credits)

This capstone course is designed for the student to demonstrate his/her knowledge and skills applicable to IT entrepreneurship. This course is designed as a project-based experience focusing on an innovative, sequential process to turn ideas into a business or social venture. Students learn the process successful entrepreneurs use prior to launching a business to help reduce market risk, and save time and money.

Total Contact Hrs: 48.00

Lecture Hrs: 24.00

Lab Hrs: 24.00

Complete all the courses in the following option:

- Option 1 - Prerequisite: CIS1513C (minimum grade: C) and GEB2112 (minimum grade: C)

CIS2949 CO OP WORK EXPERIENCE (3.00 Credits)

A course designed to provide training in a student's field of study through work experience. students are graded on the basis of documentation of learning acquired as reported by student and employer. Prerequisite: Co-Op Department approval. Student will be assigned specific course prefixes related to their academic major prior to registration. All students must contact the Co-operative Education Office to obtain registration approval.

Total Contact Hrs: 144.00

Other Hrs: 144.00

CIS3204C ETHICAL HACKING I (4.00 Credits)

This course provides a foundation in understanding of how to effectively protect computer networks. Students will learn about the tools and penetration testing methodologies used by ethical hackers to protect corporate and government data from cyber attacks. Part one of a two sequence course.

Total Contact Hrs: 64.00

Lecture Hrs: 32.00

Lab Hrs: 32.00

Complete all the courses in one of the following options:

- Option 1 - Prerequisite: CET2688C
- Option 2 - Prerequisite: CTS2120C

CIS3361C CYSA+ (3.00 Credits)

The information technology (IT) professional must understand, apply, and manage information assurance and security (IAS) in computing, communication, and organizational systems. This course will provide the knowledge and skills required to configure and use threat detection tools, perform data analysis and interpret the results to identify vulnerabilities, threats and risks to an organization with the end goal of securing and protecting applications and systems within an organization. Practice will also be provided to thoroughly prepare students for the CompTIA CySA+ certification exam.

Total Contact Hrs: 48.00

Lecture Hrs: 24.00

Lab Hrs: 24.00

CIS4253 SOCIAL AND PROFESSIONAL ISSUES IN IT (3.00 Credits)

In addition to technical skills, an IT professional must understand the social and professional context of IT and computing, and adhere to ethical codes of conduct. This knowledge area covers the historical, social, professional, ethical and legal aspects of computing. It identifies how teamwork is integrated throughout IT and how IT supports an organization. It also stresses professional oral and written communication skills.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

CIS4596 IT CAPSTONE PROJECT (3.00 Credits)

This course will give the IT student the ability to utilize what he/she has learned from the IT Program and adapt it to a work environment. This will be accomplished by providing the student a senior project that includes first: project proposal, feasibility studies, identification of intellectual property, and a teamwork environment for project creation, and second; project support which includes: budgets, schedule management, communications through reports and presentations project testing, implementation and final approval. Note: This course must be taken in the final semester.

Permission from the Deans of Business, Technology & Management and Student Affairs.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

Complete all the courses in the following option:

- Option 1 - Pre or Corequisite: CDA4411 (minimum grade: C) and CEN4341 (minimum grade: C) and CEN4722 (minimum grade: C) and CIS3361C (minimum grade: C) and CIS4253 (minimum grade: C) and CNT3604 (minimum grade: C) and COP4858 (minimum grade: C) and ISM3054C (minimum grade: C) and ISM3212C (minimum grade: C)

CIS4935C ETHICAL HACKING II: CAPSTONE (4.00 Credits)

This course is a continuation of Ethical Hacking. It supports mastery of the nineteen Certified Ethical Hacking domains. It is a capstone course in which students are assessed based on the objectives of the CEH exam offered by the EC-Council.

Total Contact Hrs: 64.00

Lecture Hrs: 32.00

Lab Hrs: 32.00

Complete all the courses in the following option:

- Prerequisite: CIS3204C (minimum grade: C)