

COMPUTER INFORMATION SYSTEMS (CIS)

CIS 100 Introduction to Word 1(1-0)

A competency-based course, topics include: file management, formatting, fonts, editing, reports, footnotes, desktop publishing, clip art, styles, outlines, tables, and mail merge. (F, S, SS)

CIS 101 CIS Careers & Opportunities 1(1-0)

This course touches the various fields and career opportunities in Computer Information Systems. (F, S)

CIS 103 Introduction to PowerPoint 1(1-0)

An introduction to PowerPoint which includes presentation templates, charts, object embedding, slide shows and other details in enhancing communications via presentation software. (F, S, SS)

CIS 104 Introduction to Excel Spreadsheets 1(1-0)

Includes worksheet design, text and formula manipulation, charts, lists, pivot tables, ranges, lookup tables, data analysis, functions, and macros. (F, S, SS)

CIS 105 Introduction to Access DBMS 1(1-0)

Course includes relational database design, table creation, data manipulation, queries, forms, reports, web access, and interface design. (F, S, SS)

CIS 150 Computer, Ethics, and Society 3(3-0)

Survey of computer information systems, history of computers, data representation, operating & software systems, networks, the internet, ethical usage of computers and their impact upon society. (F, S)

CIS 171 Introduction to Java Programming 4(3-2)

An introduction to computer programming, design and testing using the Java object-oriented programming language. Topics include language constructs, functions, file handling, inheritance and UML. (F, S, SS)

CIS 185 PC Architecture 3(2-1)

In depth study of personal computer hardware, peripherals, and interfaces. Course examines processors, disk drives, buses, video cards, memory and diagnostic software. (F, S)

CIS 240 Systems Analysis and Design 3(3-0)

Practical methods for analyzing business problems and designing contemporary information systems solutions using various methodologies, techniques, skills, and tools. Prerequisite: CIS 171. (F)

CIS 271 Advanced Program Design with Java 4(3-2)

Continuation of CIS 171, includes advanced Java programming constructs such as data structures, multi-threading, collections, database connectivity, remote objects and GUI's. Prerequisite: CIS 171. (S)

CIS 289 Network Concepts 3(2-2)

Fundamental hardware, software, and data communication concepts necessary to understand computer networks. (F)

CIS 290 Special Projects (1-5 V)

Individual projects designed to extend student knowledge beyond offerings in the current curriculum. Examples include program, database, Web site or network research or development. Prerequisite: Sophomore standing and permission of instructor. (F, S, SS) Repeatable (3).

CIS 291 Special Topics (1-5 V)

Study of new and emerging topics and technologies in the computing field. Prerequisite: Sophomore standing. (*) Repeatable (3).

CIS 298 Internship (1-5 V)

IT-related industrial work experience under the direction of a field supervisor and faculty member. (F, S, SS) Repeatable (6).

CIS 311 Introduction to Web Development 3(3-0)

An introduction to web site design and implementation using HTML, JavaScript, XML and other state of the art web development tools and languages. Prerequisite: CIS 171. (F)

CIS 315 Linux Fundamentals 3(3-0)

Explore Linux features, covering command language, file system, mail, and editing. Shell language tools include pipes, filters and I/O redirection. Prerequisite: CIS 171. (S)

CIS 350 Database Management 3(3-0)

Design, implementation and use of database management systems; comparison of available software packages; concepts of query languages and security considerations. Laboratory assignments utilize a relational data base system. Prerequisite: CIS 240 or permission of instructor. (F)

CIS 356 iOS Application Development 3(3-0)

Development of iOS applications using a Swift language for iOS devices. Prerequisite: CIS 271. (F, E)

CIS 359 Advanced Programming with C# 3(3-0)

Design and develop desktop and web-based applications using C# and .NET. Emphasis on advanced programming concepts and technique. Prerequisite: CIS 171. (S)

CIS 365 Management Information Systems 3(3-0)

Introduction to application and management of IT in functional business areas (marketing, finance, accounting, etc.). Includes IT strategy, business intelligence, e-commerce, and enterprise information systems. Prerequisite: CIS 103 and CIS 104 and and MGMT 201. (*) Repeatable (99).

CIS 383 E-Commerce 3(3-0)

This course focuses on key issues including e-commerce strategy, business models, technology infrastructure, security and payment systems, e-marketing, and ethical behavior. Prerequisite: MGMT 201 and junior standing. (*)

CIS 386 Android Application Development 3(3-0)

Development of Android applications using advanced Java programming concepts for the Android devices. Prerequisite: CIS 271. (F, O)

CIS 401 Network Systems Administration 3(2-2)

Introduces the necessary knowledge and skills to install, configure, and manage network operating systems, preparing students to be system administrators in a networking environment. Prerequisite: CIS 289. (F)

CIS 410 Data Analytics with Python 3(3-0)

Using Python programming language as a tool to solve the problems in Data Analytics such as data visualization, natural language processing, database handling, and machine learning. Prerequisite: CIS 171. (*)

CIS 411 Internet Server-Side Programming 3(3-0)

Server based web programming and scripting. Includes data base access methods, open source tools, and web application construction from the server side. Prerequisite: CIS 311 and CIS 350. (S)

CIS 432 Senior Professional Project 6(3-6)

Student Teams design and implement database, network, web and other computer-based projects in the local community. Modern analysis, design and modeling techniques are emphasized. Prerequisite: All required CIS classes and MGMT 368. Corequisite: Graduating semester or consent of instructor. (S)

CIS 450 Advanced Data Analytics 3(3-0)

Emphasis on cutting-edge applications, tools, techniques, and trends in Data Analytics such as data visualization, interactive dashboard, Artificial Intelligence, Machine Learning, and Big Data architecture. Prerequisite: CIS 350, or permission of instructor. (S)

CIS 460 Cyber Security & Defense 3(2-2)

Students will understand the impact of cyber threats and attacks to organizations and critical IT resources. Topics include defense-in-depth safeguards and threat vulnerability asset (TVA) analysis. Prerequisite: CIS 289 or permission of instructor. (S)

CIS 461 IT Security Risk Management 3(3-0)

Overview of cyber security, cyber threats, information assurance (IA), assessment of information security risk, security risk strategies and mitigation, disaster recovery planning, cyber security law. (S)

CIS 462 Computer Forensics 3(2-2)

Focus on the detection, isolation and response to information security breaches and attacks. Provides a detailed examination of the entire computer forensic process. Prerequisite: CIS 289. (F)

CIS 490 Special Projects (1-5 V)

Individual projects designed to extend student knowledge beyond offerings in the current curriculum. Examples include program, database, Web site or network research or development. Prerequisite: Permission of instructor. (F, S, SS) Repeatable (6).

CIS 491 Special Topics (1-5 V)

Study of new and emerging topics and technologies in the computing field. May be repeated for credit. Prerequisite: Junior or senior standing. (F, S, SS) Repeatable (9).

CIS 493 Senior Seminar 1(1-0)

Seminar concerning appropriate career topics in computer information systems. Speakers may include guests, faculty or students. Student outcomes will be assessed. Required of majors. Prerequisite: All required CIS classes. Corequisite: CIS 432. (F)

CIS 498 Internship (1-5 V)

IT-related industrial work experience under the direction of a field supervisor and faculty member. Prerequisite: Junior or senior standing. (F, S, SS) Repeatable (6).

CIS 510 Data Analytics with Python 3(3-0)

Using Python programming language as a tool to solve the problems in Data Analytics such as data visualization, natural language processing, database handling, and machine learning. Prerequisite: CIS 171 or consent of instructor. (*)

CIS 532 Professional Project 6(3-6)

Student teams design and implement database, network, web and other computer-based projects in the local community. Modern analysis, design and modeling techniques are emphasized. Prerequisite: All required CIS classes and MGMT 368. (F, S)

CIS 550 Advanced Data Analytics 3(3-0)

Emphasis on cutting-edge applications, tools, techniques, and trends in Data Analytics such as data visualization, interactive dashboard, Artificial Intelligence, Machine Learning, and Big Data architecture. Prerequisite: CIS 240 or CIS 350 or permission of instructor. (S)

CIS 560 Cyber Security and Defense 3(2-2)

Students will understand the impact of cyber threats and attacks to organizations and critical IT resources. Topics include defense-in-depth safeguards and threat vulnerability asset (TVA) analysis. Prerequisite: CIS 289 or consent of instructor. (F, S)

CIS 561 IT Security Management 3(3-0)

Students learn to assess, design, develop, and implement information security programs for organizations. Covers on-going management of security programs. Prerequisite: Any Introduction to Management course. (S)

CIS 562 Computer Forensics 3(2-2)

Students will learn computer forensics, business continuity planning, incident response, 3rd party contractual agreements with response agencies, Case Law and detection, and isolation response to info security. Prerequisite: Consent of instructor. (F)

CIS 565 Management Information Systems 3(3-0)

Principles, methodologies, practices and management of information systems in business organizations, topics include: IT strategy, IT project management, e-commerce, and enterprise information systems. Prerequisite: Admission to MBA or permission of MBA Director. (*)

CIS 583 E-Commerce 3(3-0)

This course focuses on key issues including e-commerce strategy, business models, technology infrastructure, security and payment systems, e-marketing, and ethical behavior. Prerequisite: Admission to MBA or permission of MBA Director. (*)

CIS 591 Special Topics (1-5 V)

Study of new and emerging topics and technologies in the computing field. Prerequisite: Graduate student standing and instructor permission. (F, S, SS)