CIS - COMPUTER INFORMATION SYSTEMS

CIS 090
Computers for New Users
2 credit hours (lecture: 2 | lab: 1)
Course focuses on introductory computer skills and basic terminology. Content includes starting the computer; desktop configuration; management of files and folders; searching the Internet; send, receive and attach a file to an email; create, format, edit, save, and print documents; create, format, edit, chart, save, and print spreadsheets. Intended for those with little to no experience in operating the hardware and commonly used software applications.
Delivery mode: Face-to-Face Fee: $10

CIS 101
Introduction to Computer Information Systems
3 credit hours (lecture: 3 | lab: 1)
Course introduces computers and information systems. Content includes fundamental concepts of hardware and software as applied to computers in a business environment; programming, operating systems, the Internet, data communications, systems development life cycle, and information systems; use of typical software packages including word processing, spreadsheeting, database and presentation graphics. Hands-on experience with personal computers in labs. Intended for those seeking a career as a computer professional, an understanding of the role of Information Systems in the business community, or introductory "end user" computer skills.
Recommended: High school algebra, MAT 070, or equivalent skills.
IAI Major: BUS 902
Delivery mode: Face-to-Face | Hybrid | Online Fee: $10

CIS 103
Computer Software and Concepts
4 credit hours (lecture: 3 | lab: 3)
Course introduces business application software and fundamental concepts of computer hardware. Hands-on experience in word processing, spreadsheeting, database development, presentation graphics, digital imaging and photo editing, diagramming software, Windows operating system, computer security, and Internet (Web browsers, email, and Web site development) software. Intended for students seeking careers as Information Technology (IT) professionals or for those needing exposure to various software applications.
Recommended: High school algebra, MAT 070, or equivalent skills.
IAI Major: BUS 902
Delivery mode: Face-to-Face | Online Fee: $30

CIS 111
Fundamentals of the Internet
2 credit hours (lecture: 2 | lab: 1)
Course focuses on understanding the structure of the Internet, how it works, and issues surrounding its use. Content includes hands-on activities, examination and application of theoretical concepts, as well as use of Internet basics, Web browsers, URLs, Web pages, search engines, navigation tools, transferring files, electronic mail, discussion lists and newsgroup usage, "netiquette," and ethical, legal, security, and societal issues.
Recommended: CIS 101
Delivery mode: Face-to-Face | Online Fee: $5

CIS 113
Introduction to Programming using Visual Basic .NET
3 credit hours (lecture: 3 | lab: 1)
Course introduces programming concepts using hierarchy charts, program flowcharts, pseudocode, and the Visual Basic .NET programming language to solve business-related problems. Content includes fundamentals of structured programming, arithmetic calculations, decision making, looping, data input and output, numeric and string variables, functions and procedures, arrays, file creation, data retrieval, and developing and debugging Visual Basic programs. Object-oriented theory and terminology will be introduced.
Recommended: CIS 101 or CIS 103 or comparable computer knowledge and one year of high school algebra or equivalent.
Delivery mode: Face-to-Face | Online Fee: $10

CIS 116
Introduction to the MS-Windows Operating System
2 credit hours (lecture: 2 | lab: 1)
Course presents theoretical and hands-on instruction using the Microsoft Windows operating system environment. Content includes customizing the environment, optimizing performance, managing file systems, optimizing disks, performing file and folder operations, evaluating system performance, exploring the Windows registry, using troubleshooting tools, enhancing the computer's security, and evaluating installation issues.
Recommended: CIS 101 or CIS 103 or comparable experience.
Delivery mode: Face-to-Face | Online Fee: $5

CIS 118
Linux Operating System
2 credit hours (lecture: 2 | lab: 0)
Course teaches theoretical and hands-on instruction using the LINUX operating system environment. Content includes basic LINUX operating system concepts, terminology, file management, general utility commands, command processor (shells), and editors.
Recommended: CIS 101 or CIS 103 or comparable computer experience.
Delivery mode: Face-to-Face | Online

CIS 131
Web Page Development
4 credit hours (lecture: 4 | lab: 1)
Course introduces theoretical and hands-on instruction on the processes needed to create customized and interactive Web pages using HTML and Cascading Style Sheets (CSS). Content includes commands (tags) to create, format, and link documents; tables, graphics, styles, forms, multimedia (audio, video), navigation bar, introduction to scripting, and other features of a Web page and guidelines for designing effective Web pages and Web sites.
Recommended: CIS 111 or concurrent enrollment in CIS 111 and ability to manage files and folders using Windows OR consent of instructor or Program Coordinator
Delivery mode: Face-to-Face | Online Fee: $5

CIS 143
Introduction to SQL
3 credit hours (lecture: 3 | lab: 1)
Course provides theoretical and hands-on instruction on data server technology. Content includes relational databases concepts, SQL syntax, SQL commands to create and maintain database objects and to store, retrieve, display, query, and manipulate data, functions, blocks of application code that can be shared by multiple forms, reports, and data management applications; and commands to execute blocks of code.
Recommended: CAB 140 or comparable experience with a representative database software package, and knowledge of a programming language.
Delivery mode: Face-to-Face | Hybrid | Online Fee: $10

CIS 145
Database Fundamentals I
4 credit hours (lecture: 4 | lab: 1)
Course provides a foundation in the administrative tasks performed by a database administrator. Topics include Oracle database architecture and how each component functions and interacts. Students will learn how to design, develop, install, maintain, manage, and troubleshoot an Oracle database. Performance monitoring, database security, user management, and backup/recovery techniques will be discussed. This class prepares the student for the Oracle Database Administrator Certified Associate exam.
Recommended: CIS 143 or comparable knowledge.
Delivery mode: Face-to-Face | Online Fee: $40

CIS 148
Introduction to Database Driven Web Sites
3 credit hours (lecture: 3 | lab: 1)
Course provides a general introduction to the basic framework of a database-driven web site. Content includes sample databases and a popular, industry standard software tool for creating site definitions; and to plan, develop, and implement a web database application.
Recommended: CAB 170 or equivalent knowledge.
Delivery mode: Face-to-Face | Online Fee: $10

CIS 152
Web Development Tools
3 credit hours (lecture: 3 | lab: 2)
Course introduces Web development tools, including HTML editors and Web site managers as well as graphics manipulation tools. Content includes use of these tools to create interactive Web Sites which integrate style sheets, DHTML components and Javascript.
Recommended: CIS 131 with minimum grade of C
IAI Major: MC 923
Delivery mode: Face-to-Face | Hybrid | Online Fee: $20

CIS 171
Advanced Web Page Development
3 credit hours (lecture: 3 | lab: 1)
Course expands basic development of Web pages to build additional interaction and functionality into them. Content includes style sheets, database queries, basic scripting, applets, and Dynamic HTML as incorporated into the Web page code; Web site organization and navigation strategies.
Recommended: Knowledge of basic programming concepts, CIS 131.
Delivery mode: Face-to-Face | Online Fee: $10

CIS 180
Introduction to Visual Basic .NET Programming
4 credit hours (lecture: 3 | lab: 2)
Course introduces programming using the Visual Basic .NET programming language to solve business-related problems. Content includes program development and design, object-oriented programming, screen design, structured programming techniques, and event-driven programming using objects. Programming assignment concepts include arithmetic calculations, decision making, looping, soft and hard copy display, subroutines and functions, data validation, working with arrays, introductory concepts of file creation and data retrieval and accessing, updating, and querying data in a database.
Recommended: CIS 101, and CSC 155 (C++) or CSC 156 (Java) or CSC 157 (Python) or comparable programming knowledge or consent of instructor or program coordinator.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 188
Active Server Pages
4 credit hours (lecture: 3 | lab: 2)
Course introduces Active Server Pages (ASP+). Content includes hands-on activities and lectures to increase familiarity with developing advanced Web applications using Active Server Pages (ASP+); advanced Internet architecture, using advanced Web development tools; the Active Server Page model, processing forms, integrating Web applications with data; and other server based applications, configuring Web applications, and using Web services to integrate Web applications.
Recommended: CIS 171 with a minimum grade of C OR consent of the Instructor or Program Coordinator.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 201
Information Systems for Business
3 credit hours (lecture: 3 | lab: 1)
Course explores the types of information used in business, the flow of information through an organization, and a framework for examining characteristics of Accounting Information Systems in relation to other information system components. Content includes transaction processing systems, internal management reporting, and the day-to-day operational support. Course also covers Enterprise Resource Planning (ERP) systems and Systems Development Life Cycle (SDLC).
Recommended: CIS 101 or CIS 103 and four credits of CIS courses
Delivery mode: Face-to-Face | Online Fee: $25

CIS 203
Managing Information Systems
3 credit hours (lecture: 3 | lab: 1)
Course focuses on how to analyze and manage the fundamentals of a computer information system, with emphasis on design, implementation, control, evaluation, and strategic use. Content includes hands-on experience with business software and Enterprise Resource Systems, emphasizing the managerial and strategic aspects of information technology. Course provides an overview of the Systems Development Life Cycle (SDLC) and/or development/purchase of an information system. Student completes an in-depth business needs analysis, including software and hardware recommendations, plus procedures, prototypes, and a Request for Proposal.
Recommended: CIS 201 and four additional CIS course credits.
Delivery mode: Face-to-Face | Online Fee: $25

CIS 204
Introduction to System Analysis and Design
3 credit hours (lecture: 3 | lab: 1)
Course introduces the systems development life cycle of a computer system. Content includes the investigation, analysis, design, implementation and evaluation phases of a business system, tools (e.g. CASE) and techniques used by the systems analyst.
Recommended: CIS 101 or CIS 103 and one programming language course or concurrent enrollment in one programming language course.
Delivery mode: Face-to-Face | Online Fee: $10

CIS 205
Documentation and Technical Writing
3 credit hours (lecture: 3 | lab: 0)
Course explores various types of written communications used in the computer environment. Content includes steps, techniques and tools necessary to produce a variety of documents while using the basic skills necessary for clear, succinct writing. Focus is on development of computer documentation such as user manuals, technical reports, standards manuals and feasibility studies.
Recommended: Knowledge of any programming language and EGL 101; student should have a basic understanding of the tools and functions in using a computer in a business environment.
Delivery mode: Face-to-Face | Online

CIS 206
Software Cybersecurity
3 credit hours (lecture: 3 | lab: 1)
An introductory course of computer security principles and practices with applications to databases and software systems. An emphasis is placed on securing database authentication and authorization processes; and, securing systems through responsible software development and scripting techniques. Credit toward graduation cannot be received for both CIS 206 and CSC 206.
Prerequisite: CSC 155, CSC 156 or CSC 157 with a minimum grade of C.
Delivery mode: Face-to-Face | Hybrid | Online Fee: $20

CIS 208
Visual Basic for Applications
4 credit hours (lecture: 3 | lab: 2)
Course introduces programming using Visual Basic for Applications (VBA) to automate or customize operations in Word, Excel, and Access. The Visual Basic editor will be used to code, compile, execute, and debug programs. Content includes programming logic and writing VBA code that uses variables, looping, decision-making, functions, procedures, and SQL.
Recommended: CIS 103 or CAB 135 and CAB 140, ability to manage files using Windows, and MAT 070 or one year of high school algebra
Delivery mode: Face-to-Face | Online Fee: $20

CIS 209
Database Programming for PCs
4 credit hours (lecture: 4 | lab: 1)
Course offers instruction in designing and developing a business application using a representative microcomputer database management package. Content includes macros, VBA programming, database security, and complex queries, forms, and reports to complete a database case study that demonstrate analysis, design, and development of a business application.
Recommended: CAB 140 or comparable knowledge of database software.
Delivery mode: Face-to-Face | Online Fee: $10

CIS 210
Visual Basic .NET Programming for Files and Databases
4 credit hours (lecture: 3 | lab: 2)
Course concentrates on writing programs that use files and databases to enter, store, and display data. Content includes various data controls, grids, and data bound controls used with the access technologies provided by Visual Basic; principles of database usage, use of Structured Query Language (SQL) to provide access to data, Data Access Objects, Remote Data Objects, ODBC, and Active X Data Objects.
Recommended: CIS 180 and CAB 140, or consent of instructor, department coordinator or chair.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 211
Java Programming
4 credit hours (lecture: 3 | lab: 2)
Course continues to develop the knowledge needed to write object-oriented, interactive, business-related applications and applets using the Java programming language. Topics include inheritance, polymorphism, exception handling, graphical user interfaces and event-handling, input/output streams, collections, and generic programming. Students will code, compile, execute and debug Java programs. Fundamental of Java programming will be reviewed.
Recommended: CIS 101, and CSC 155 (C++) or CSC 156 (Java) or CSC 157 (Python) or comparable programming knowledge or consent of instructor or program coordinator.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 213
Advanced Topics in Visual Basic .NET Programming
4 credit hours (lecture: 3 | lab: 2)
Course concentrates on writing complex programs using Visual Basic .NET concepts and commands. Content includes object-oriented concepts and design, configuring Visual Basic, user interfaces, .NET Framework controls, add-ins and utilities, dynamic control and object creation, creating a multiple document interface application (MDI), using the Windows API, Registry and INI files, Web Services, adding an Online Help system to applications, and deployment of applications.
Recommended: CIS 180 or comparable programming knowledge or consent of instructor, department coordinator or chair.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 214
Web Site Maintenance and Management
4 credit hours (lecture: 3 | lab: 2)
Course presents technical and people management skills needed to set up and maintain a Web site. Content includes hands-on activities and lectures to increase familiarity with technical and Web development skills required to setup and maintain both Internet and Intranet Web sites. Involves team work in Web site development, to create, plan, implement, test and evaluate Web sites.
Prerequisite: CIS 171 with minimum grade of C
Delivery mode: Face-to-Face | Online Fee: $20

CIS 215
Assembly Language For The Microcomputer
4 credit hours (lecture: 3 | lab: 2)
Course introduces Intel microprocessor assembly language instruction set. Content includes assembly, link and executing code to write business-oriented programs and subroutines to include such concepts as screen manipulating, table searching, disk processing, calling assembly language subroutines, communicating with programs written in higher-level languages, debugging techniques and machine language execution.
Recommended: Knowledge of any programming language.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 218
Advanced Linux Operating System
2 credit hours (lecture: 2 | lab: 0)
Course concentrates on advanced concepts in using the LINUX operating system environment. Content includes advanced LINUX utilities, shell script programming (Bourne, C, Korn), networking, basic "C" language programming and LINUX system administration.
Recommended: CIS 118 or comparable knowledge.
Delivery mode: Face-to-Face | Online

CIS 220
Introduction to C Programming
4 credit hours (lecture: 3 | lab: 2)
Course introduces procedural-oriental programming using the C programming language to solve business-related problems. Content includes writing, compiling, executing, and debugging programs, essential elements of the language, syntax, operators, data types, program controls, pointers, arrays, structures, and unions, input/output, and disk processing.
Recommended: CIS 101, and CSC 155 (C++) or CSC 156 (Java) or CSC 157 (Python) or comparable programming knowledge or consent of instructor or program coordinator.
Delivery mode: Face-to-Face Fee: $20

CIS 222
Java Programming Using Files and Databases
4 credit hours (lecture: 3 | lab: 2)
Course provides students, who already have an understanding of Java programming basics, with knowledge of file and database programming using Java. Students will write Java programs that update random access files and write Java programs that connect to a database (e.g. Microsoft Access). Database concepts and the Structured Query Language (SQL) to provide access to data will be covered.
Recommended: CIS 211 or programming experience or consent of Instructor or Program Coordinator.
Delivery mode: Face-to-Face Fee: $45

CIS 227
C# Programming
4 credit hours (lecture: 3 | lab: 2)
Course introduces programming using the C# programming language to solve business-related problems. Content includes program development and design, visual and object-oriented programming, screen design, structured programming techniques, and event-driven programming using objects. Programming assignment concepts include arithmetic calculations, decision making, looping, reports to screen and paper, subroutines and functions, interactive processing, working with arrays, and introductory concepts of file creation and access to data.
Recommended: CIS 101, and CSC 155 (C++) or CSC 156 (Java) or CSC 157 (Python) or comparable programming knowledge or consent of the instructor or program coordinator.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 228
Linux Administration
3 credit hours (lecture: 3 | lab: 1)
Course offers instruction in installation, support, and administration of a LINUX operating system in both server and workstation configurations. Content includes LINUX and Web server installation, system startup/shutdown, hardware configuration, disk and file system structure, package management, TCP/IP networking, system management and security, X-Windows usage and configuration, user management, LINUX printing, system performance measurement and tuning, LINUX Kernel "hacking," and LINUX utilities. Credit toward graduation cannot be received for both CIS 228 and CNS 228.
Recommended: CIS 218 and CNS 105 or comparable knowledge
Delivery mode: Face-to-Face | Online Fee: $10

CIS 231
Advanced Java Programming
4 credit hours (lecture: 3 | lab: 2)
Course examines topics in various Java technologies. Content includes inner classes, multithreading, reflection, collection classes, Swing, TCP/IP networking, Java database connectivity (JDBC), remote method invocation (RMI), CORBA (interactive data language), servlets, and Java server pages (JSP). Students will be able to develop distributed object applications and write Web pages using advanced server side programming through servlets and Java server pages.
Recommended: CIS 211 or comparable knowledge.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 232
Web Scripting
4 credit hours (lecture: 3 | lab: 2)
Course combines hands-on activities and lectures to increase familiarity with developing web applications with JavaScript, PHP, XML, or another contemporary web language. Content includes enhancing web pages using interactive features; manipulating built-in objects; and validating and processing forms. Course can be repeated on different topics up to three times for up to 12 twelve credits.
Recommended: CIS 101, and CSC 155 (C++) or CSC 156 (Java) or CSC 157 (Python) and CIS 171 or comparable programming knowledge or consent of the instructor or program coordinator.
Delivery mode: Face-to-Face | Hybrid | Online Fee: $20

CIS 236
Project Management
3 credit hours (lecture: 3 | lab: 1)
Course introduces principles of Project Management as defined by the Project Management Institute (PMI). Content includes experiential exercises and team participation to gain experience with computer-based project management procedures, and to increase basic familiarity with state-of-the-art project management software. Credit toward graduation cannot be received for both CIS 236 and MGT 236.
Delivery mode: Face-to-Face | Online Fee: $10

CIS 238
Linux Network Services Administration
3 credit hours (lecture: 3 | lab: 1)
Course covers LINUX network services and administration using the LINUX operating system. Content includes: network technology and terms; TCP/IP installation and configuration; network hardware installation; secure INETD "super daemon" installation and TCPD wrappers; configuration of network services - Domain Name Services (DNS); DHCP; Apache (Web server); SMTP/SENDMAIL; File Transfer Protocol (FTP) server, Network File Server (NFS); SAMBA (Windows Network Server); Secure Shell (SSH); Secure Socket Layer; firewalls and packet filters; and packet sniffers and intrusion detections systems. Credit toward graduation cannot be received for both CIS 238 and CNS 238.
Recommended: CIS 228 or CNS 228 or comparable knowledge or consent of instructor or program coordinator.
Delivery mode: Face-to-Face | Online Fee: $10

CIS 241
Database Management
3 credit hours (lecture: 3 | lab: 1)
Course introduces management of database systems including design, development, implementation, recovery, and security of databases. Content includes database models, entity-relationship (E-R) modeling, normalization, data warehousing; an introduction to SQL; the database life cycle, transaction management, distributed databases, client/server systems; using databases in e-commerce and on the Internet, and the role of the database administrator.
Recommended: One programming course and CAB 140 or comparable knowledge.
Delivery mode: Face-to-Face | Online Fee: $10

CIS 245
Database Fundamentals II
4 credit hours (lecture: 4 | lab: 1)
Course continues to develop the knowledge needed to perform the tasks of a database administrator. Topics include methods to backup, restore, and recover the database given various different scenarios, transporting data between databases and the utilities used, networking concepts and configuration parameters, solving common network problems, and configuring network parameters to allow the database clients to communicate with the database server. This course leads to the Oracle Database Administrator Certified Professional certification.
Recommended: CIS 145 or comparable knowledge.
Delivery mode: Face-to-Face | Online Fee: $40

CIS 247
Performance Tuning
4 credit hours (lecture: 4 | lab: 1)
Course focuses on maximizing the performance of the database from the design to using the database in a production environment. Course focuses observing, defining, and diagnosing the problem, and implementing a solution using various methods, techniques, and diagnostic tools. Students will learn how to observe, monitor, identify, troubleshoot, tweak, and resolve common performance-related problems. This course leads to the Oracle Database Administrator Certified Professional certification.
Recommended: CIS 245 or comparable knowledge.
Delivery mode: Face-to-Face | Online Fee: $10

CIS 248
Web Database Management
4 credit hours (lecture: 3 | lab: 2)
Course introduces Web database technologies. Content includes hands-on activities and lectures to increase familiarity with methods used to create dynamic Web applications that interact with a data source, such as a relational database. Elective for majors of World Wide Web program.
Recommended: CIS 171 and CAB 140, with minimum grade of C.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 251
Computer Information Systems Internship
3 credit hours (lecture: 2 | lab: 10)
Course consists of direct work experience in a computer information systems related environment at an approved business or industrial firm applying knowledge and skills learned to their daily assigned responsibilities. The student will meet with a Computer Information Systems instructor who will evaluate their on-the-job technical skills. Arrangements for the work experience will be worked out in conjunction with the Computer Information Systems coordinator. In addition, the student will discuss work-related situations with the instructor.
Prerequisite: Completion of a minimum of 15 credits in CIS, CAB, or CNS with a grade of C or better in each course and consent of instructor, department coordinator, or program chair.
Delivery mode: Face-to-Face | Online

CIS 253
Project Management Certification Preparation
2 credit hours (lecture: 2 | lab: 0)
Course offers an intensive review of project management concepts and the application of these concepts to various business scenarios in preparation for the Project Management Professional (PMP) certification exam. Credit toward graduation cannot be received for both CIS 253 and MGT 253.
Recommended: CIS 236 or MGT 236 or comparable knowledge or consent of instructor.
Delivery mode: Face-to-Face | Online

CIS 257
Apps Programming for Apple Mobile Devices
4 credit hours (lecture: 3 | lab: 2)
Course covers the fundamentals needed to develop iOS applications for the iPad and iPhone mobile platforms. Introduced is Swift (the programming language), Xcode (the development environment), and Cocoa Touch (the framework for building software programs). Content includes program design and development, designing user interfaces including swipe gestures and rotation, visual and object-oriented programming, and event-driven programming using user interface objects and controls. Learn to sell apps in Apple's App store.
Recommended: CIS 101, and CSC 155 (C++) or CSC 156 (Java) or CSC 157 (Python) or comparable programming knowledge or consent of the instructor or program coordinator.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 258
Apps Programming for Android Mobile Devices
4 credit hours (lecture: 3 | lab: 2)
Course covers the fundamentals needed to develop Android applications for mobile devices. The Java for Android programming language and Eclipse (the development environment) will be used. Topics include designing and developing user interfaces, layouts, development tools, recognize gestures and touches, display text and images, store data, and graphics.
Recommended: CIS 101, and CSC 155 (C++) or CSC 156 (Java) or CSC 157 (Python) or comparable programming knowledge or consent of the instructor or program coordinator.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 267
Advanced Apps Programming Using Apple Mobile Devices
4 credit hours (lecture: 3 | lab: 2)
Course covers the advanced concepts needed to build rich iOS applications for the iPad and iPhone mobile platforms. Students will code, compile, execute, and debug mobile applications using the Swift programming language to develop programs using advanced programming concepts such as Storyboarding, Master-Detail viewability, Push Notification, etc. SQLite databases will be introduced including database design techniques for mobile devices. Deploying apps to the Apple Store will be included.
Recommended: CIS 257 or comparable programming knowledge or consent of the instructor or the program coordinator.
Delivery mode: Face-to-Face | Online Fee: $20

CIS 268
Advanced Apps Programming for Android Mobile Devices
4 credit hours (lecture: 3 | lab: 2)
Course covers the advanced concepts needed to build rich Android applications for the Android mobile platform. Student will code, compile, execute, and debug mobile applications using the Java for Android programming language and Eclipse to develop programs using advanced programming concepts. Topics include SQLite databases, locations and maps, background processing, User-Interface components and advanced controls, and web content.
Recommended: CIS 258 or comparable programming knowledge or consent of Instructor or Program Coordinator.
Delivery mode: Face-to-Face Fee: $20

CIS 290
Topics In Computer Information Systems
1-4 credit hours (lecture: 1-4 | lab: 1-4)
Course covers a variety of different topics current with technological advances in Computer Information Systems. Topics will be identified for each section of the course and students may repeat the course three times with different topics. Fee Varies. Prerequisite may vary by topic.
Delivery mode: Face-to-Face | Online