

COMPUTER INFORMATION SYSTEMS (CIS)

CIS 100: Intro to Windows and PCs (3)

This course is designed as an introductory computer course for students with limited to no previous computer experience in all fields. Course content includes using Microsoft Windows, basic word processing, a web browser, internet skills, file management, and email. Students will also be exposed to Learning Management System (LMS)

Terms Typically Offered: Fall (Not Offered 2025-2025)

CIS 120: Intro to Digital Literacy (4)

This course is designed as an introductory digital literacy course for students in all fields. Course content includes an overview and history of the field, basic computer architecture, auxiliary storage and file organization, data communications, with "hands-on" work using Microsoft Office applications including word processing, spreadsheets, graphics, and communications as tools used in data processing

Terms Typically Offered: Fall, Winter, Spring, Summer

CIS 122: Orientation to Programming (4)

This course is an introduction to problem solving and programming. Students will be introduced to an integrated Development Environment, tools and techniques of problem solving and the basic elements of well-structured programming. Visual C# or another modern language will be introduced. CIS 120 should be taken prior to or concurrent with this course.

Registration-Enforced Prerequisite: MTH 095 or equivalent; placement into WR 121Z or higher.

Terms Typically Offered: Fall

CIS 125H: Writing Web Pages (2)

This course will be an introduction to the HTML language. Students will learn to write web pages. Topics will include: HTML commands, hyperlinks, use of graphics, and a basic introduction to Javascript.

Prerequisite: Experience with current Windows operating system or instructor approval.

Terms Typically Offered: Fall

CIS 133CS: Intro to Programming I (4)

This course is a continuation of CIS 122. Students will learn and apply programming concepts using a high-level programming language. This course will emphasize all phases of program development for the business environment including program design, development, documentation, test, implementation and maintenance. Particular attention will be directed toward the use of structured programming techniques. The course will provide an introduction to writing programs to handle interactive applications. Object orientation and design concepts will be introduced in this course.

Registration-Enforced Prerequisite: CIS 122 and CIS 120, or instructor approval.

Terms Typically Offered: Winter

CIS 135: Application Dev-Computers (3)

Students will learn to use a mainstream suite of applications.

Applications will include, but not be limited to, word processing, database (DBMS), spreadsheet, and graphic presentations. The suite will be used to develop a representative business situation where the ultimate goal is integration of the various applications for correspondence, financial records, inventory management, and company presentations. Focus will be on determining, projecting, and meeting business needs within the confines of the application suite. Top down programming methods will be applied to the business situation and needs assessment as the primary method used to understand the business and its goals.

Prerequisite: CIS 120 or instructor approval.

Terms Typically Offered: (Not currently offered)

CIS 140L: Intro to Linux OS (4)

This course is a lab-oriented study of operating systems preparing students for an industry-based certification such as Comp TIA's Linux+ examination. The course includes the installation and administration of a desktop operating system as well as management, troubleshooting, and optimizing techniques.

Registration-Enforced Corequisite: CIS 120 or instructor approval.

Terms Typically Offered: Summer

CIS 140M: Intro to MS Operating Systems (4)

This course is a lab-oriented study of Microsoft desktop operating systems and prepares students for a Microsoft industry-based desktop certification. Topics include installation, management, and administration techniques as well as troubleshooting and optimization techniques using physical and virtual machine technology.

Registration-Enforced Corequisite: CIS 120 or instructor approval.

Terms Typically Offered: Fall

CIS 140W: Intro to Windows (2)

An introduction to the Windows operating system, the class will focus on working with windows, menus, dialog boxes, properties, shortcuts, Windows Explorer, Windows accessory applications and other Windows topics

Terms Typically Offered: Spring

CIS 145: Computer Forensics (4)

This course introduces students to the technologies and theory of computer forensics. This course is designed for system administrators, system engineers, and operators responsible for cybersecurity. Students will learn the application of computer investigation and analysis techniques to gather potential legal evidence, which is often available due to computer crime or misuse, theft of trade secrets, theft of or destruction of intellectual property, and fraud. Students will learn the basic principles and skills required to identify an intruder's footprints, properly gather applicable evidence, and safeguard it for law enforcement. Technologies covered may vary by term, depending on industry trends.

Registration-Enforced Prerequisite: CIS 140M or CIS 140L.

Terms Typically Offered: Spring

CIS 151C: Introduction to Networks (4)

This is the first of three Cisco Networking Academy courses that prepares students for the CCNA (Cisco Certified Network Administrator) certification. This course serves as an introduction to networking and Cisco networking technologies using physical Cisco routers and switches, and network simulation software. Instruction includes, but is not limited to router and switch configuration, network terminology, networking principles, protocols and standards, local-area networks (LANs), logical models, and Internet Protocol (IP) addressing. Emphasis is placed on the use of critical thinking skills and problem-solving techniques to resolve networking problems.

Registration-Enforced Prerequisite: CIS 120 or instructor approval.

Terms Typically Offered: Spring

CIS 152C: Switch Rout Wireless Ess (4)

This is the second of three Cisco Networking Academy courses that prepares students for the CCNA (Cisco Certified Network Administrator) certification. This course will teach students how to configure advanced functionality in routers and switches, implement best practices to troubleshoot issues, and resolve common protocol issues in IP-based networks. Emphasis is placed on the use of critical thinking skills and problem solving techniques to resolve networking problems.

Registration-Enforced Prerequisite: CIS 151C or instructor approval.

Terms Typically Offered: Fall

CIS 153C: Ent Netwrk Security Automation (4)

This is the third of three Cisco Networking Academy courses that prepares students for the CCNA (Cisco Certified Network Administrator) certification. This course will teach you how to configure Cisco devices to securely support WANs using OSPF, implement ACLs, configure NAT/PAT, understand and configure site-to-site VPNs, and serve as an introduction to virtualization and to the automation of repetitive tasks. Emphasis is placed on the use of critical thinking skills and problem solving techniques to resolve networking problems.

Registration-Enforced Prerequisite: CIS 152C or instructor approval.

Terms Typically Offered: Summer

CIS 154C: Wide Area Network Protocols (4)

This course serves as the last course in a series of four courses and focuses on providing students with classroom and hands-on experience in current and emerging networking technologies. Instruction, includes, but is not limited to, a review of local area network (LAN) switching, virtual LANs, LAN design, routing protocols, access lists, wide area networks (WANs), logical and physical reference models, device management, and WAN protocols.

Registration-Enforced Prerequisite: CIS 153C or instructor approval.

Terms Typically Offered: (not currently offered)

CIS 195: Authoring for the Web I (4)

Techniques and tools for designing and publishing on the World Wide Web; hypertext and HTML; site and page design; media integration; issues raised by Internet publishing.

Registration-Enforced Prerequisite: CIS 133CS or CS 161 or instructor approval.

Terms Typically Offered: Fall

CIS 199: Intro Programming w Robots (4-5)

This course offers an introduction to programming and problem-solving using programmable robots. It covers the foundational aspects of programmable robot architecture, equipping students with essential tools and techniques for problem-solving and programming basics. Participants will gain exposure to high-level programming languages throughout the course

Terms Typically Offered: Spring

CIS 233CS: Intro to Programming II (4)

Continues high-level programming sequence utilizing arrays, objects, data access and data structures. Structured design techniques emphasized throughout

Terms Typically Offered: Spring

CIS 240M: Windows Server Admin I (4)

This is the first in a series of three courses centered around managing Microsoft servers in an on-premises, hybrid, or Infrastructure as a Service (IaaS) platform environment. Instruction includes but is not limited to Windows server installation and requirements, IP management, server storage solutions, Hyper-V and virtual machines, containers, DNS, DHCP, group policy, high availability, update services and patch management, and troubleshooting. This course will help students prepare for a current Microsoft certification exam.

Registration-Enforced Prerequisite: CIS 120 or Instructor Approval.

Terms Typically Offered: Winter

CIS 244: Systems Analysis and Design (4)

This course is designed to provide the CIS student with a basic understanding of the importance of the Systems Analysis function in today's computer- focused businesses and institutions. It will enable students to better appreciate the importance of the role of the Systems Analyst, the Programmer, the User and the Manager in the development and implementation of modern, computer-based, information systems. The students will participate in a series of activities including group discussions, case studies, interviews, research reports, role playing and structured walk-throughs. Throughout the course, emphasis will be placed on human interaction situations with particular focus on teaming. A secondary goal of this course will be to introduce students to many of the styles and structures of technical documentation that they will be expected to use in their subsequent employment. These documentation techniques will be taught in the context of the systems analysis project.

Prerequisite: Second year CIS major or instructor approval.

Terms Typically Offered: (not currently offered)

CIS 275: Intro to Database Mgmt Sys I (4)

Students will be introduced to database management systems (DBMS). Topics include database theory and practice, administration, table creation, database normalization and structured query language (SQL). Students will use the tools of the DBMS to develop applications that include input screens, queries, reports and batch processes.

Registration-Enforced Prerequisite: CIS 133CS, CS 161 or instructor approval.

Terms Typically Offered: Spring

CIS 276: Intro to Database Mgmt Sys II (4)

A continuation of the concepts and software expertise developed in CIS 275. Students will cover advanced SQL and database administration techniques and program on an enterprise level database.

Registration-Enforced Prerequisite: CIS 275 and CIS 233CS or instructor approval.

Terms Typically Offered: Fall

CIS 279M: Windows Server Admin II (4)

This is the second in a series of three courses centered around managing Microsoft servers in an on-premises, hybrid, or Infrastructure as a Service (IaaS) platform environment. Instruction includes but is not limited to group policy, security, high availability, backups, disaster recovery, Hyper-V, migration, monitoring, and troubleshooting. This course will help students prepare for a current Microsoft certification exam.

Registration-Enforced Prerequisite: CIS 240M or Instructor Approval.

Terms Typically Offered: Winter

CIS 280: CWE-CIS (1-13)

Qualified students work at training sites that provide experience appropriate to their major. These experiences will provide the opportunity for students to gain knowledge of the various tasks performed in their career field. A student may take any number of CWE credits per term, not to exceed 13 credits per year.

Registration-Enforced Prerequisite: Instructor approval.

Terms Typically Offered: Fall, Winter, Spring, Summer

CIS 280D: CWE-Health Informatics (1-13)

Qualified students work at training sites that provide experience appropriate to their major. These experiences will provide the opportunity for students to gain knowledge of the various tasks performed in their career field. A student may take any number of CWE credits per term, not to exceed 13 credits per year.

Registration-Enforced Prerequisite: Instructor approval.

Terms Typically Offered: Fall, Winter, Spring, Summer

CIS 284: Network Security Fundamentals (4)

This course serves as an introduction to network and information technology security and prepares the student for further study in the field. Instruction includes, but is not limited to, threat migration; cryptography; authentication and role-based security; encryption and device security; the public key infrastructure; messaging security; ports and protocols; and business continuity concepts. This course will help students prepare for a current industry-recognized security certification exam.

Registration-Enforced Prerequisite: CIS 240M or instructor approval.

Terms Typically Offered: Winter

CIS 285A: Ethical Hacking (4)

This course focuses on hacking techniques and technologies, with an emphasis on the ethics and legality of hacking. Course content will include coverage in topics such as scanning, testing, and hacking of systems such as PCs, switches, and web servers. Students will also learn about the attack process, intrusion detection, intrusion prevention, social engineering, DDoS and other attacks, buffer overflows, and virus creation. All activities are performed in a safe environment and no actual network is harmed.

Registration-Enforced Prerequisite: CIS 152C or instructor approval.

Terms Typically Offered: Winter

CIS 285C: Cloud Services Technologies (3)

This course introduces students to the technologies and theory of Infrastructure as a Service (IaaS) using common cloud providers such as Microsoft Windows Azure and/or Amazon Web Services (AWS). Students will learn cloud computing, cloud storage and content delivery, cloud database types and uses, cloud networking (private and hybrid uses), cloud security, cloud deployment and management; and Enterprise IT applications. 3 lecture hrs/wk

Registration-Enforced Prerequisite: CIS 288M.

Terms Typically Offered: Spring

CIS 288M: Windows Server Admin III (4)

This is the third in a series of three courses centered around managing Microsoft servers in an Infrastructure as a Service (IaaS) platform environment. Instruction includes but is not limited to Azure Active Directory objects, Azure files, Azure apps, Azure DNS and networking, Azure monitoring, and troubleshooting. This course will help students prepare for a current Microsoft certification exam.

Registration-Enforced Prerequisite: CIS 279M or Instructor Approval.

Terms Typically Offered: Fall

CIS 295: Authoring for the Web II (4)

Designing, developing, publishing, and maintaining dynamic websites; Web security and privacy issues; emerging Web technologies.

Prerequisite: CIS 195 or CIS 275 or CS 161.

Terms Typically Offered: Winter