

COMPUTER INFO SYSTEMS (CIS)

CIS S105 Computer Literacy

3 credits (3+0)

Develop and enhance computer and technology literacy. Topics include file management, operating systems, troubleshooting hardware and software, online safety and security, digital citizenship, information literacy, and using current online communication tools and application software. Students will learn to create and edit files using word processors, presentation software, spreadsheets, and database applications.

CIS S170 Programming Fundamentals

3 credits (3+0)

Covers computer programming fundamentals using a modern programming language. Introduces essential principles such as data structures, control flow, variables, functions, arrays, and object-oriented programming concepts. Problem-solving and troubleshooting techniques are emphasized.

CIS S235 Spreadsheet Concepts and Applications

3 credits (3+0)

Use of spreadsheet software as a problem-solving and decision-making tool. Covers creating, designing, and modifying spreadsheets, and working with formulas, functions, and charts. Introduces database principles, data analytics, and data visualization techniques.

Prerequisite: CIS S105 or CIS placement test, and BA S116 (C 2.00 or better) or MATH 055 (C 2.00 or better) or any higher level math.

CIS S294 Practicum

1 to 6 credits (0+0+ 4-24)

Provides a practicum or cooperative work experience supervised and evaluated by a faculty member and employer. Students will gain practical work experience while working in a private business or government agency.

Prerequisite: Instructor permission via an approval form.

CIS S310 Management Information Systems

3 credits (3+0)

Cross-listed as BA S310. Explores the role of information systems in various business contexts from a managerial perspective. Examines ways to improve business processes and decision-making through the use of information systems. Practical application of fundamental principles is emphasized.

CIS S345 IT Infrastructure

3 credits (3+0)

Computer and systems architecture, and communication networks emphasizing the services and capabilities that IT infrastructure solutions enable in an organizational context. Internet-based solutions, computer and network security, business continuity, and the role of infrastructure in regulatory compliance.

CIS S371 Systems Analysis and Design

3 credits (3+0)

Examines the processes, methods, techniques and tools used to analyze and design information systems. Includes the development of communication skills and techniques for determining business system requirements and conveying those requirements to developers. Students will examine and apply the Systems Development Life Cycle (SDLC), with a focus on analyzing, designing, developing, testing, and implementing functioning applications.

Prerequisite: CIS S170 or instructor permission.

CIS S420 Information Security Management

3 credits (3+0)

Covers fundamental principles and topics of information technology security and risk management at the organizational level. Students will learn critical security principles that enable them to plan, develop, and perform security tasks. Addresses hardware, software, processes, communications, applications, and policies and procedures with respect to organizational IT security and risk management.

CIS S430 Database Management Systems

3 credits (3+0)

Examines core database concepts, including identifying requirements and converting them into relational models, creating and normalizing tables, querying methods, and application development. Introduces database administration and security, and explores the role that databases play in decision support and business intelligence.

Prerequisite: CIS S235 or instructor permission.