

The management of computer information systems is one of the fastest growing job areas in information technology. As a result, an information systems manager can be one of the most important figures in any business or agency.

Webster University's Bachelor of Science degree program in Management Information Systems will help you prepare to meet the demand for innovation and technological growth of the future. Our program integrates technology and business concepts that provides students with the knowledge and skills they will need to solve current and future IT related business challenges.

The Bureau of Labor Statistics (BLS) recognizes computer information systems as one of the fastest growing career fields in the United States. Job growth through the decade ending in 2022 is expected to hold steady at 15 percent per year, which is more than double the national average rate of 7 percent for all jobs.

## PROGRAM OUTCOMES

Upon completion of the program, students will be able to:

- Demonstrate mastery of information systems management in the following core areas:
  - Application of information technology solutions
  - Project management
  - Data and information management
  - Core business concepts
- Write and orally communicate technical material effectively and professionally
- Apply problem-solving skills and the knowledge of information systems management to formulate solutions

**STEM  
DESIGNATED  
PROGRAM**

## BACHELOR OF SCIENCE MANAGEMENT INFORMATION SYSTEMS



## DEGREE REQUIREMENTS

A minimum of 128 credit hours consisting of the following:

- 57 required credit hours
- Applicable University Global Citizenship Program hours
- Electives

At least 30 of the required 57 hours must be taken at Webster University. All upper-level (3000 and above) courses must be taken at Webster University.

## REQUIRED COURSES

- **COSC 1550** Computer Programming I (3 hours)
- **COSC 1560** Computer Programming II (3 hours)
- **COSC 2670** Network Principles (3 hours)
- **COSC 2810** Systems Analysis and Design (3 hours)
- **COSC 3410** Computer Security (3 hours)
- **COSC 3500** IT Project Management (3 hours)
- **COSC 4110** Database Concepts (3 hours)
- **COSC 4120** Database Applications (3 hours)
- **ACCT 2010** Financial Accounting I (3)
- **ACCT 2025** Managerial Accounting (3)
- **BUSN 2100** Business Communications (3)
- **BUSN 4300** Business Ethics (3)
- **CSIS 4810** Integrated Enterprise Systems (3 hours)
- **CSIS 4820** Advanced Integrated Enterprise Systems (3 hours)
- **ECON 2000** Survey of Economics (3 hours)
- **FINC 3210** Principles of Finance (3 hours)
- **MNGT 2100** Management Theory and Practices (3 hours)
- **MNGT 3500** Marketing (3 hours)
- **STAT 1100** Descriptive Statistics (3 hours)

## COURSE DESCRIPTIONS

### **COSC 1550 Computer Programming I (3)**

Introduces students to the C++ language in order to teach programming as a systematic discipline and as a problem-solving tool. Acquaints students with fundamental concepts of computers, information processing, algorithms, and programs. May be repeated once for credit. Only offered in a 16-week format.

### **COSC 1560 Computer Programming II (3)**

This course uses the C++ language to introduce students to programming concepts such as abstract data types, use of classes and objects, pointers, and advanced file operations. Prerequisite: COSC 1550 with grade of B- or better. May be repeated once for credit. Only offered in 16-week format.

### **COSC 2670 Network Principles (3)**

In this course students examine the various technologies and applications of telecommunications. The course provides an analysis of the current and future trends in telecommunication technologies and services and includes an overview of the industry and the associated management and strategy issues. Prerequisite: COSC 1550 or permission of department.

### **COSC 2810 Systems Analysis and Design (3)**

Covers the basic concepts involved in systems analysis, including effective communication, analysis tools, and phases of the systems development life cycle. Prerequisite: COSC 1550 or permission of department.

### **COSC 3410 Computer Security (3 Hours)**

Students in this course will study the techniques for protecting data within a computer and protecting data as it moves through a network. Data and system security and reliability will be considered in a distributed environment. Topics will include encryption, authentication and digital signatures, threats to the computer system, and system reliability. Prerequisites: COSC 1560 and junior standing.

### **COSC 3500 IT Project Management (3)**

This course provides students a holistic and integrative view of project management. The course covers concepts and skills that are used by IT professionals to propose, plan, secure resources, budget, and lead IT project teams to a successful completion of their projects. Prerequisites: COSC 1560 and junior standing.

### **COSC 4110 Database Concepts (3)**

Students in this course will study database design using the relational model and the Entity-Relationship model. Students will study and use the SQL query language. Database design considerations will include data integrity, relational integrity, redundancy, and security. Students will develop a logical design for a database that will be implemented in COSC 4120. Prerequisites: COSC 1560, COSC 2810 and junior standing.

### **COSC 4120 Database Applications (3)**

Continuation of COSC 4110. Students develop the logical design from COSC 4110 into a complete computer application with documentation. Focuses

on specific applications that are important in a variety of computer information systems. Applications are examined from the perspective of user needs and program design. Students study program design using a database management system. Prerequisite: COSC 4110.

### **ACCT 2010 Financial Accounting (3)**

Introduces accounting with an emphasis on the relationships between business events and financial statements. The primary objective is to develop students who can explain how any given business event will affect the income statement, balance sheet, and statement of cash flows. This objective also includes an understanding of the accounting cycle, accounting terminology, collection of accounting data, data entry into the accounting system, and the basic financial accounting statements.

### **ACCT 2025 Managerial Accounting (3)**

Managerial accounting emphasizes the use of accounting information for planning, control, and decision-making purposes in all types of organizations. This course explores topics in the areas of cost behavior, cost-volume-profit analysis, relevant cost analysis, cost accumulation and assignment, activity-based costing, profit planning and control, performance evaluation, responsibility accounting, and product costing systems. Prerequisite: ACCT 2010.

### **BUSN 2100 Business Communications (3)**

This course develops the communication abilities in the areas of business formats, presentations, formal presentation of business data, and oral communications related to business applications.

### **BUSN 4300 Business Ethics (3)**

Presents theories of the role of the firm and socioeconomic responsibilities to the stockholders, employees, customer, suppliers, the community, the nation, and the world. Cross-listed with RELG 4310.

### **CSIS 4810 Integrated Enterprise Systems (3)**

Enterprise Systems are an essential infrastructure to large corporate entities, as well as small-to-medium (SME) organizations, as they remove the need to have a large number of separate individual computer-based applications. This course is designed to give students a foundational understanding of integrated enterprise systems (IES) and how these systems fit into today's business operations and the management decision making process.

The course covers Business Systems, Enterprise Systems, and the Enterprise Resource Planning (ERP) system as an integrated system covering all activities in the business value chain model. In addition, this course will also consider other technologies, such as cloud computing, big data, and mobile devices. Prerequisites: COSC 3500, ECON 2000, ACCT 2025, BUSN 2100 and junior standing.

### **CSIS 4820 Advanced Integrated Enterprise Systems (3)**

This course will provide students a detailed understanding of the Integrated Enterprise Systems modular architecture. The course covers Supply Chain Management (SCM), Supplier Relationship (SRM), Customer Relationship Management (CRM), Financial

(FI), and Production Management System. In addition, this course covers Business Intelligence, and other business applications, that integrate a range of various applications into a single package. Hence increasing the efficiency, and effectiveness, of the organization in performing the respective business processes required to run their operations and deliver their goods or services to customers. Prerequisites: CSIS 4810 and STAT 1100.

### **ECON 2000 Survey of Economics (3)**

This course provides students a broad survey of the discipline of economics. The emphasis is on the acquisition of a broad conceptual understanding of how academic and professional economists "view" the world. Given the importance of understanding "markets" to both business and public policy, the heaviest emphasis is on how markets function and a smaller emphasis on the business cycle and macroeconomic policy.

### **FINC 3210 Principles of Finance (3)**

Introductory course integrating concepts of corporate finance with investments and the money/capital markets. Topics include the role of money in the economy; the time value of money; financial analysis and planning; security valuation and capital market theory; capital budgeting; short- and long-term financing; and working capital management. Value maximization and risk/return tradeoffs in financial decision making are employed as integrative concepts throughout the course. Prerequisites: BUSN 2750, ACCT 2010 and ACCT 2025.

### **MNGT 2100 Management Theory and Practices (3)**

This course presents a broad view of management theory and practices, classical to modern. It examines the basic management functions of planning, organizing, directing and controlling. It also covers such issues as ethical decision making and social responsibility, innovation, globalization, and working with a diverse work force. There is an additional course fee of \$35.

### **MNGT 3500 Marketing (3)**

Studies the marketing process as it relates to management, channels of distribution, trends in selling, consumer behavior, promotion and pricing policies, research, communications, and government regulation.

### **STAT 1100 Descriptive Statistics (3)**

This course introduces the core concepts of statistics. It covers methods used to describe data (mean, median, standard deviation, etc.) and methods used to present data (graphical displays like histograms, other plots and others). This course covers basic probability rules used in statistics. The students will develop the ability to reason using statistical information. They will acquire the skills to evaluate the many advertising and new reports of statistical studies that are encountered in daily life. GCP Coding: (QL)

## ACCREDITATION

Webster University is accredited by  
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