

FROM COLLEGE TO CAREER IN

# COMPUTER INFORMATION SYSTEMS

Based on a national contemporary information systems curriculum (IS97), the UMA Bachelor of Science in Computer Information Systems (CIS) focuses on developing and maintaining efficient computer/management information systems. The program emphasizes a well-rounded curriculum that boasts a unique blend of information technology, mathematics, business, and technical writing. Through theory and hands-on computer education, students develop essential life skills such as critical thinking, quantitative decision making, organization, communication, team interaction, and professionalism.

## Transferable Skills & Competencies

The Computer Information Systems curriculum provides a foundation in computer literacy with introductory courses in microcomputer applications, web design and development, introduction to information systems design, and desktop publishing.

Program participants explore system analysis and design as they develop effective computer information systems. The concept of the system development life cycle is realized through the implementation of testing and maintenance strategies.

Students gain an understanding of the database environment as they explore analytical processes and examine the managerial and decision-making capabilities of databases. Relational database design is focused on satisfying dynamic information management needs and is implemented using commercial database software programs, such as Microsoft Access and Oracle.

Students learn to systematically design, code, and test programs as they progress through basic and intermediate courses in Visual Basic, Java, JavaScript, Extensible Markup Language, C++, COBOL, and server-side programming languages.

### Technical

- Designing web pages
- Maintaining databases
- Using spreadsheet applications
- Writing computer languages

### Communication

- Writing instructions
- Creating graphs/charts
- Writing documentation
- Creating reports
- Using technical vocabulary
- Assessing needs

### Analytical

- Thinking logically
- Performing calculations
- Solving quantitative problems
- Understanding complex problems
- Evaluating software/systems

### Organization

- Categorizing data
- Managing databases
- Defining a problem
- Coordinating tasks
- Setting priorities
- Providing accuracy



***The University of Maine at Augusta***  
with campus locations in Augusta and Bangor,  
teaching to over 100 centers and sites statewide.

# Careers

*Five out of the top twelve jobs identified by the US Department of Labor Statistics as the fastest growing occupations are computer related. (See <http://www.bls.gov/emp/emptab21.htm>)*

A required internship experience for the bachelor's degree extends the boundaries of academia by providing the practical dimension of real-world work experience directly related to the computer information systems field. Students expand their career opportunities; broaden their knowledge base in computer sciences, systems technology, and programming; develop essential workplace and life skills; and build a network of professional contacts in the information technology sector.

The foundation acquired in the CIS program prepares a student to embark on a career in information technology or to pursue a more advanced study in CIS or a related field. A wide variety of career options exists for the Computer Information Systems professional. A CIS graduate can launch a successful career in one of the following positions:

## **Network Systems**

Administrator  
Network Manager

## **Interactive Media**

Web Developer  
GIS/Computer Mapper

## **Programming & Software Development**

Programmer  
Program Analyst  
Project Manager  
Web Designer

## **Information Support & Services**

Database Manager  
Data Communications Analyst  
Systems Analyst  
Database Administrator  
Geographic Information System Specialist

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## For More Information

### *College of Mathematics &*

#### *Professional Studies*

621-3288 or 1-877-UMA-1234, ext. 3288

### *Program Coordinator: Dr. Joseph Szakas*

621-3181, or 1-877-UMA-1234, ext. 3181

### *Academic & Career Advising*

621-3149 or 1-877-UMA-1234, ext. 3149

### *Admissions & Records Office*

621-3140 or 1-877-UMA-1234, ext. 3140

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