Computer Information Systems | Major

PROGRAM HIGHLIGHTS IN BRIEF

Computer Information Systems studies at Alvernia University are designed to meet the varying needs of students entering professions where technology is used. The Bachelor of Science degree with a major in Computer Information Systems prepares students for computer-related fields or graduate level studies. Because of the diverse application of Computer Information Systems, students declare an area of concentration from among five distinctively designed programs including Business, Communications, Criminal Justice, Mathematics, and Science.

Several CIS courses are available for a “4th Credit Option.” The student contracts to do a specific amount of computer-based service work related to the content of the computer course; for this, the student gets a fourth credit for a 3-credit course as well as computer experience. The department has first priority to a number of computer classrooms, each of which includes local area network and Internet access.

CAREER SUCCESS

Graduates of the Computer Information Systems program have been employed by SoftMart, Martin Marietta, Meridian Bank, Dana Corporation, GPU, Rockwell International, Vanguard, UGI, Wyeth-Ayerst, and a host of other companies on the cutting edge of computer technology.

CAREER OPPORTUNITIES

Analyst/Programmer
Computer Applications Engineer
Computer Facilities Manager
Database Manager
Data Security Analyst
Forensic Computing Specialist
Information Systems Developer
Information Systems Manager
Network Administrator/Manager
Network Programmer
On-line Services Manager
Operating Systems Programmer
Product Development Manager
Satellite Communications Specialist
Software Engineer
Software Support Specialist
Web Developer

CURRICULUM OVERVIEW

Bachelor Degree Requirements (34 Credits)
CIS 151 Introduction to CIS I
CIS 152 Introduction to CIS II
CIS 226 Advanced C# and Data Structures I
CIS 235 Networking and Communications
CIS 240 Computer Organization
CIS 328 Programming for Rapid Application Development
CIS 330 Operating Systems
CIS 351 Advanced C# and Data Structures II
CIS 410 Systems Analysis and Project Management
CIS 420 Database Management Systems
MAT 204 Introduction to Mathematical Logic

Computer Information Systems Areas of Emphasis:

Business Emphasis (31 Credits)
BUS 101 Financial Accounting
BUS 200 Managerial Accounting I
BUS 206 Management Principles
BUS 248 Macroeconomics –OR-
BUS 249 Microeconomics
BUS 342 Business Law
MAT 208 Introductory Statistics –OR-
MAT 209 Probability and Statistics
Choose two of the following:
BUS 305 Accounting Information Systems
BUS 311 Principles of Management Info Systems
COM 240 Public Relations and Advertising

Communication Emphasis (31 Credits)
COM 240 Public Relations and Advertising
COM 332 Multimedia Design and Editing
COM 362 New Media
Choose two of the following:
COM 322 COBOL
COM 324 Advanced COBOL
COM 334 Java
COM 338 Advanced Rapid Application Development

Choose one of the following:
COM 103 Fundamentals of Speech
COM 131 Writing for the Media
COM 344 Writing for the Workplace

Choose two of the following:
COM 122 Mass Media Theory and Application
COM 250 Interpretation of Film
COM 251 Broadcasting and Electronic Media
COM 352 Video Production
CURRICULUM OVERVIEW (continued)

Criminal Justice Emphasis (31 Credits)
CJ 101 Introduction to Criminal Justice
CJ 216 Women and the Criminal Justice System –OR-
CJ 218 Multicultural Issues in Criminal Justice
CJ 275 Criminology
3 other CJ elective courses
MAT 208 Introductory Statistics
MAT 209 Probability and Statistics
Choose one of the following:
CIS 322 COBOL
CIS 334 Java
CIS 338 Advanced Rapid Application Development
Choose two of the following:
BUS 101 Financial Accounting
BUS 200 Managerial Accounting I
COM 332 Multimedia Design and Editing
CIS 362 New Media

Mathematics Emphasis (32 Credits)
PHY 110 General Physics I
PHY 111 General Physics II
MAT 209 Probability and Statistics
MAT 230 Calculus I
MAT 231 Calculus II
MAT 240 Linear Algebra
MAT 304 Numerical Analysis
MAT 307 Abstract Algebra
Choose one of the following:
CIS 314 FORTRAN
CIS 334 Java
CIS 338 Advanced Rapid Application Development

Science Emphasis (31 Credits)
MAT 209 Probability and Statistics
8 credits in one science
8 credits in another science
8 additional science credits chosen with the advisor and the science department
Choose one of the following:
CIS 314 FORTRAN
CIS 334 Java
CIS 338 Advanced Rapid Application Development

There are three minors related to information technology.
The CIS minor is for the student seriously interested in
programming; the Information Studies minor is designed
around business information needs; and the Digital Media
minor emphasizes communication tools.

CIS Minor Requirements (18 Credits)
CIS 151 Introduction to CIS I
CIS 152 Introduction to CIS II
CIS 226 Advanced C# and Data Structures I
CIS 240 Computer Organization
Choose one from the following:
CIS 410 Systems Analysis and Design
CIS 420 Database Management Systems
(or three other CIS elective credits not to include CIS 114)

Digital Media Minor (21 Credits)
CIS 115 Technology for the Workplace
CIS 151 Introduction to CIS I
CIS 152 Introduction to CIS II
CIS 235 Networking and Communication
COM 332 Multimedia Design and Editing
COM 362 New Media
Choose two from the following:
ART 209 Basic Photography
ART 251 3-D Design
ART 281 Graphic Design and Illustration
COM 251 Broadcasting and Electronic Media
COM 340 Advertising Workshop
COM 352 Video Production
COM 452 Television Production

Information Studies Minor Requirements (18 Credits)
CIS 151 Introduction to CIS I
CIS 152 Introduction to CIS II
CIS 235 Communication Technology
BUS 305 Accounting Information Systems
BUS 311 Principles of Management Info Systems
CIS 334 Java
CIS 328 Programming for Rapid Application Development
CIS 362 New Media
CIS 410 Systems Analysis and Project Management

Associate Degree Program (67 Credits)
The Associate Degree program provides each student with
an opportunity to obtain a firm foundation for future study
in the area of computer information systems. All of the
courses and requirements taken for the two-year degree
may apply toward the completion of the four-year computer
information systems degree. See catalog
(www.alvernia.edu/catalog/) for associate degree requirements.

CONTACT INFORMATION
Polly Mathys
Assistant Professor of Computer Information Systems
1-610-796-8283
polly.mathys@alvernia.edu