

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

COM 332 Multimedia Design and Editing
 COM 362 New Media
 Choose two of the following:
 CIS 322 COBOL
 CIS 324 Advanced COBOL
 CIS 334 Java
 CIS 338 Advanced Rapid Application Development

Communication Emphasis (31 Credits)

COM 240 Public Relations and Advertising
 COM 332 Multimedia Design and Editing
 COM 362 New Media
 COM 420 Law and Ethics of Mass Communication
 COM 480 Research Seminar -OR-
 COM 481 Internship
 MAT 208 Introductory Statistics -OR-
 MAT 209 Probability and Statistics
 CIS 334 Java -OR-
 CIS 338 Advanced Rapid Application Development

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

Choose two of the following:
 COM 103 Fundamentals of Speech
 COM 131 Writing for the Media
 COM 344 Writing for the Workplace
 Choose one 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	FORTTRAN
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	FORTTRAN
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 –OR-
BUS 311	Principles of Management Info Systems
CIS 334	Java –OR-
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