

COMPUTER SCIENCE/ INFORMATION TECHNOLOGY

Associate in Applied Science

This career program prepares students for entry-level positions in a multitude of computer-related jobs. Both computer scientists and information technologists need a balance of software and hardware applications with concentration in specific courses emphasizing effective problem solving. The software development process, (composing and coordinating component of a program) requires that students construct algorithms for problem solving with appropriate documentation. This curriculum has been designed to prepare the student to meet the future needs of integration, design, deployment, and management of computing, resources and services. A graduate of the program will have a firm understanding of modern programming practices and related skills in computer information technology. Computer science students have access to five computer labs utilizing contemporary operating systems, located in the Technology Building. The faculty recommend the following minimal criteria for prospective students in the Computer Science/Information Technology program:

1. High school diploma or equivalent
2. Cumulative high school grade point average of C or above
3. Ranked in top half of high school graduating class
4. No developmental studies requirement

FIRST SEMESTER

- 3 s.h. Introduction to Visual Basic (CSIT 160) or Computer Programming I (C++)(CSIT 171)
 - 3 s.h. Introduction to Computer Organization (CSIT 140)
 - 3 s.h. English I (ENGL 151)
 - 3 s.h. A Survey of Mathematics (MATH 151) or Finite Mathematics (MATH 171) or Introduction to Probability (MATH 181) or higher
 - 3 s.h. Social Science Requirement
- 15 s.h.

SECOND SEMESTER

- 3 s.h. VB.Net Programming (CSIT 162) or Computer Programming II (C++)(CSIT 172)
 - 3 s.h. English II (ENGL 152)
 - 4 s.h. Lab Science Requirement
 - 6 s.h. Computer Science Electives *
- 16 s.h.

THIRD SEMESTER

- 6 s.h. Computer Science Electives*
 - 3 s.h. Fundamentals of Public Speaking (COMM 154)
 - 6-7 s.h. Electives (to meet required 64 s.h.)
- 15-16 s.h.

FOURTH SEMESTER

- 3 s.h. Database Management (CSIT 213)
- 6 s.h. Computer Science Electives *
- 3 s.h. Business Studies Elective
- 2-3 s.h. Applied Modern Health I (HEHP 110) or Contemporary Health (HEHP 225)
- 3 s.h. Internship I (INTR 290)

17-18 s.h.

TOTAL CREDITS 64

*Any CSIT course (CSIT 120 or higher) including those recommended for the following tracks. Students are not required to select a specific track to complete this degree.

APPLICATION TRACK

Recommended Programming Sequence (CSIT 160/CSIT 162)

SUGGESTED COMPUTER SCIENCE ELECTIVES

- 3 s.h. Internet Essentials (CSIT 120)
- 3 s.h. Integrated Office Software (CSIT 123)
- 3 s.h. Intermediate Spreadsheets and Database (CSIT 126)
- 3 s.h. Database Applications with VBA (CSIT 153)

SUGGESTED BUSINESS STUDIES ELECTIVES

- 3 s.h. Introduction to Business Administration (BUSN 131)

COMPUTER GAME DEVELOPMENT TRACK

Recommended Programming Sequence (CSIT 171/CSIT 172)

SUGGESTED COMPUTER SCIENCE ELECTIVES

- 3 s.h. Introduction to Computer Game Development (CSIT 115)
- 3 s.h. Multimedia for the Web (CSIT 131)
- 3 s.h. Web Development Fundamentals (CSIT 133)
- 3 s.h. VB.Net Programming (CSIT 162)
- 3 s.h. Game Programming with OpenGL (CSIT 173)

SUGGESTED BUSINESS STUDIES ELECTIVES

- 3 s.h. Principles of Marketing (BUSN 134)

SUGGESTED FINE ARTS ELECTIVES

- 3 s.h. Introduction to Audio/Visual Design

NETWORKING TRACK

Recommended Programming Sequence (CSIT 171/CSIT 172)

SUGGESTED COMPUTER SCIENCE ELECTIVES

- 3 s.h. Intermediate Spreadsheets and Database (CSIT 126)
- 3 s.h. Networking Essentials (CSIT 184)
- 3 s.h. UNIX (CSIT 144)
- 3 s.h. VB.Net Programming (CSIT 162)
- 3 s.h. Computer Systems (CSIT 174)
- 3 s.h. Network Management (CSIT 281)
- 3 s.h. Multi-Network Management (CSIT 282)

SUGGESTED BUSINESS STUDIES ELECTIVES

- 3 s.h. Introduction to Business Administration (BUSN 131)

PROGRAMMING TRACK

Recommended Programming Sequence (CSIT 171/CSIT 172)

SUGGESTED COMPUTER SCIENCE ELECTIVES

- 3 s.h. Intermediate Spreadsheets and Database (CSIT 126)
- 3 s.h. UNIX (CSIT 144)
- 3 s.h. Database Applications with VBA (CSIT 153)
- 3 s.h. VB.Net Programming (CSIT 162)
- 3 s.h. Game Programming with OpenGL (CSIT 173)
- 3 s.h. Computer Systems (CSIT 174)
- 3 s.h. Systems Analysis (CSIT 212)
- 3 s.h. Application Programming in C++ (CSIT 260)
- 3 s.h. Programming in Java (CSIT 270)
- 3 s.h. Data Structures and Algorithm Analysis (CSIT 271)

SUGGESTED BUSINESS STUDIES ELECTIVES

- 3 s.h. Principles of Accounting (ACCT 161)

WEB DESIGN TRACK

Recommended Programming Sequence (CSIT 171/CSIT 172)

SUGGESTED COMPUTER SCIENCE ELECTIVES

- 3 s.h. Intermediate Spreadsheets and Database (CSIT 126)
- 3 s.h. Web Site Design (CSIT 130)
- 3 s.h. Multimedia for the Web (CSIT 131)
- 3 s.h. Web Development Fundamentals (CSIT 133)
- 3 s.h. VB.Net Programming (CSIT 162)
- 3 s.h. Programming Dynamic Elements for Web Pages (CSIT 231)
- 3 s.h. Server Programming for the Web (CSIT 232)
- 3 s.h. Programming in Java (CSIT 270)

SUGGESTED BUSINESS STUDIES ELECTIVES

- 3 s.h. Principles of Marketing (BUSN 134)

SUGGESTED FINE ARTS ELECTIVES

- 3 s.h. Introduction to Audio/Visual Design