INFORMATION TECHNOLOGY EMPHASIS, AA LIBERAL ARTS AND SCIENCES (DEGREE A8985)

Business Division
Degree A8985
The A.A. Degree in Liberal Arts and Sciences with an emphasis in Information Technology is designed to prepare students for a career in Information Technology. The degree offers a balanced set of classes that enables students to maintain and secure a computer, create and modify computer applications and databases, create customized reports, and use productivity software to solve business problems. Emphasis is place on developing object-oriented, business-related applications, creating and maintaining a database, and utilizing operating system utilities to optimize, maintain and secure a computer. Career opportunities available after the completion of this degree include technical support and systems analyst. Students wishing a bachelor's degree (transfer program) should meet with a counselor or advisor to discuss transferability of course.

This degree requires the completion of General Education (https://catalog.mtsac.edu/programs/degrees-certificates/#gerequirementstext) coursework plus the following:

Required Courses

Course Prefix	Course Name	Units
Information Technology Basics		
Required Core		7
CISB 11	Computer Information Systems	
CISB 15	Microcomputer Applications	
Software Development		
Choose one of the following sequences:		3.5
CISP 21 & 21L	Programming in Java and Programming in Java Laboratory	
CISP 31 & 31L	Programming in C++ and Programming in C++ Laboratory	
CISP 41 & 41L	Programming in C# and Programming in C# Laboratory	
CISP 71 & 71L	Programming in Python and Programming in Python Laboratory	
CISW 24 & 24L	Secure Web Server Programming in Python and Secure Web Server Programming in Python Laboratory	
Database Technology		
Choose one of the following sequences:		3.5
CISD 11 & 11L	Database Management - Microsoft Access and Database Management - Microsoft Access Laboratory	
CISD 21 & 21L	Database Management - Microsoft SQL Server and Database Management - Microsoft SQL Server Laboratory	
CISD 31 & 31L	Database Management - Oracle and Database Management - Oracle Laboratory	
Operating Systems and Networking		
Choose one of the following options:		3-3.5
CISN 11 & 11L	Telecommunications Networking and Telecommunications/Networking Laboratory	
CISN 21	Windows Operating System	
CISN 31 & 31L	Linux Operating System and Linux Operating System Laboratory	
Security		
Choose one of the following options:		3-4
CISS 13	Principles of Information Systems Security	
CISS 15	Operating Systems Security	
CISS 21 & 21L	Network Vulnerabilities and Countermeasures and Network Vulnerabilities and Countermeasures Laboratory	
Recommended Elective		
Choose one of the following options:		
CISB 31	Microsoft Word	
CISB 51	Microsoft PowerPoint	
CISM 11	Systems Analysis and Design	
Total Units		**20-21.5**

Program Learning Outcomes

Upon successful completion of this program, a student will:

- Know the four primary operations of a computer and the hardware that performs these operations.
- Be able to create effective queries that answer needed questions.
- Be able to identify four types of common transmission media and be able to describe the basic characteristics of each.
- Be able to use decision making statements and loops in order to create a business application.
- Be able to understand the need for security.

Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/instruction/outcomes/sloinfo.html)for this program.