

# COMPUTER SYSTEMS TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE DEGREE

CST is a fall start program. Please see an advisor for more information.

The Computer Systems Technology program prepares students for an exciting career in the computer industry. Technicians provide assistance and training to system users as well as administer the computer network. Graduates can find career opportunities in universities, public and private school systems, hospitals, financial institutions, retail stores, or any other organization that provides technical support to employees. See our website at [www.msbillings.edu/careers](http://www.msbillings.edu/careers) (<http://www.msbillings.edu/careers/>) for graduate data.

Students learn techniques to investigate and resolve computer problems, both on a client computer and across an entire network and to answer clients' inquiries concerning the use of computer hardware and software. This includes solving problems related to network access, operating systems, and trouble-shooting communication issues.

Students will gain knowledge and skills in Cisco networking, Microsoft Windows networking and management, and other related computer areas. They will receive hands-on experience via the lab component of this program. Advanced computer and networking equipment is provided for use in the labs. Approximately 40% of the classroom time contains hands-on training to provide the student with real world experience. Students who are successful in the program will be prepared to take industry certification tests such as A+, Net+, Server+, CCNA, CCNP, MCP, and MCSE.

Before a student can be accepted into the Computer Systems Technology program, competency in mathematics and computers must be demonstrated. This may be done by:

- transferring of appropriate credits
- completing the computer literacy challenge test
- obtaining permission of CST faculty
- taking prerequisite course (CAPP 120)
- possessing current ACT/SAT scores in the required range
- taking the necessary prerequisite English, math and/or computer classes identified in the catalog

Check with an academic advisor to determine how you can meet these requirements. Students should check the course descriptions for required prerequisites.

## Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Troubleshoot and repair computer hardware.
- Set up operating systems and troubleshoot software.
- Set up and document LAN networks using troubleshooting skills.
- Set up and document WAN networks using troubleshooting skills.
- Set up and document secure networks.

## Required Courses

Code	Title	Credits
CAPP 156	MS Excel	3
COMX 106	Comm in a Dynamic Workplace	3
CSCI 100	Intro to Programming	3

CSCI 240	Databases and SQL	3
ITS 166	Configuring MS Windows 10	3
ITS 212	Network Operating Sys-Server A	3
ITS 217	Network OS - Server Admin/Apps	3
ITS 224	Introduction to Linux	3
ITS 226	Advanced Linux	3
ITS 245	Computer Forensics	3
ITS 246	Cybersecurity Operations	3
ITS 256	CCNA Security	3
ITS 257	Intro to Comp Virtualization	3
ITS 280	Computer Repair & Maintenance	3
ITS 283	Health Information Networking	3
ITS 299	Capstone	3
M 114	Extended Technical Mathematics	3
NTS 104	CCNA 1: Intro to Networks	3
NTS 105	CCNA 2: Routing & Switching Es	3
NTS 204	CCNA 3: Scaling Networks	3
WRIT 121	Intro to Technical Writing	3
<b>Restricted Electives</b>		
Select one from the following:		
CSCI 116	Python Programming	3
CSCI 211	Client Side Programming	
CSCI 214	Server-Side Web Prog & Admin	
ITS 289	Professional Certification <sup>1</sup>	
ITS 291	Special Topics	
ITS 298	Cooperative Educ/Internship	

**Total Minimum Credits** **66**

<sup>1</sup> Recommended

## Suggested Plan of Study

Code	Title	Credits
<b>First Semester</b>		
COMX 106	Comm in a Dynamic Workplace	3
CSCI 100	Intro to Programming	3
CSCI 240	Databases and SQL	3
ITS 166	Configuring MS Windows 10	3
ITS 280	Computer Repair & Maintenance	3
M 114	Extended Technical Mathematics	3
<b>Total</b>		<b>18</b>
<b>Second Semester</b>		
CAPP 156	MS Excel	3
ITS 212	Network Operating Sys-Server A	3
ITS 224	Introduction to Linux	3
NTS 104	CCNA 1: Intro to Networks	3
WRIT 121	Intro to Technical Writing	3
<b>Total</b>		<b>15</b>
<b>Third Semester</b>		
ITS 217	Network OS - Server Admin/Apps	3
ITS 246	Cybersecurity Operations	3
ITS 226	Advanced Linux	3
NTS 105	CCNA 2: Routing & Switching Es	3

Restricted Elective		3
Total		15
Fourth Semester		
ITS 245	Computer Forensics	3
ITS 256	CCNA Security	3
ITS 257	Intro to Comp Virtualization	3
ITS 283	Health Information Networking	3
ITS 299	Capstone	3
NTS 204	CCNA 3: Scaling Networks	3
Total		18