COMPUTER AND ADVANCED TECHNOLOGIES

Computer Technology

Occupational Skills Award

The Computer Technology Occupational Skills Award (OSA) is designed for students interested in enhancing their skills and education in the field of Information Technology, specifically in computer maintenance.

This award prepares students for an entry-level job as a computer support technician and provides instruction on computer maintenance and repair of computer systems.

Computer and Internet Specialist

Certificate

This one-semester specialization provides students with the essential foundations in the use of computers and the Internet. Students learn entry-level skills needed to effectively use the latest computer and Internet technologies. Graduates gain knowledge in computer hardware, computer software, fundamentals of operating systems, computer networking and Internet concepts.

Computer Maintenance Specialist

Certificate

Graduates from this specialization gain skills necessary to compete in the computer maintenance industry. They learn skills in computer architecture programming, installation, maintenance, and troubleshooting of computer hardware, software, mobile and peripheral devices. Students also learn to provide hardware and software security support for users within their organization. In collaboration with Information Technology industry partners, students also participate in an internship to practice their skills and gain valuable industry experience.

Specialization: Computer Support Specialist

Associate of Applied Science

This program of study prepares students to have a competitive edge in the industry of computer support and maintenance. Graduates gain advanced skills in computer architecture programming, installation, maintenance, and troubleshooting of computer hardware, software, mobile and peripheral devices. They will also learn to provide hardware and software security support for users within their organization. In collaboration with Information Technology industry partners, students also participate in an internship to practice their skills and gain valuable industry experience.

In partnership with CompTIA Academy, this degree prepares students for the ITF+ (Information Technology Fundamentals), and A+ Industry Certifications.

Program Learning Outcomes
Computer and Internet Specialist Certificate

1. Graduates will describe major functions performed by microcomputer systems software.
2. Graduates will install and configure system software.
3. Graduates will troubleshoot system software.

Computer Maintenance Specialist Certificate

1. Graduates will explain the functions of components in a computer system.
2. Graduates will use computer related test equipment.
3. Graduates will use hardware and software maintenance and troubleshooting tools.

Specialization: Computer Support Specialist, Associate of Applied Science

1. Graduates will integrate special applications in the areas of multimedia, data acquisition, or engineering.
2. Graduates will install and maintain various hardware and software components for specialized application.
3. Graduates will analyze and test system operations.
4. Graduates will develop hardware troubleshooting techniques and perform procedures used in troubleshooting.
5. Graduates will develop software troubleshooting techniques and perform procedures used in troubleshooting.

Advisory Committee Members

Leo Mariscal, Field Service Technician, Energy Recovery, Inc.
William B. Roper, Principal Product Manager, Oracle Cloud Infrastructure
Francisco Medrano, Network Coordinator, South Texas Health Systems
Mariana Nino, Operations Manager, Zoho Corporation
Felix Martinez, Technician Supervisor, Netsync

Occupational Skills Award

- Computer Technology Occupational Skills Award (p. 1)

Certificates

- Computer and Internet Specialist Certificate (p. 2)
- Computer Maintenance Specialist Certificate (p. 2)

Associate Degrees

- Computer and Advanced Technologies
    - Specialization: Computer Support Specialist Associate of Applied Science (p. 2)

Computer Technology Occupational Skills Award

TSI Exempt

Course	Title	Credit Hours
Fall		
CPMT 1403	Introduction to Computer Technology	4
CPMT 1443	Microcomputer Architecture	4
ITSC 1425	Personal Computer Hardware	4
	Credit Hours	**12**
	Total Credit Hours	**12**

Computer and Internet Specialist Certificate

TSI Exempt

100% Online

Course	Title	Credit Hours
Fall		
CPMT 1403	Introduction to Computer Technology	4
CPMT 1404	Microcomputer System Software [1]	4
CPMT 1443	Microcomputer Architecture	4
ITSC 1425	Personal Computer Hardware	4
	Credit Hours	**16**
	Total Credit Hours	**16**

[1] Capstone: Successfully passing CPMT 1404 Microcomputer System Software.

Computer Maintenance Specialist Certificate

TSI Exempt

Course	Title	Credit Hours
Fall		
CPMT 1403	Introduction to Computer Technology	4
CPMT 1404	Microcomputer System Software	4
ITSC 1425	Personal Computer Hardware	4
CPMT 1443	Microcomputer Architecture	4
	Credit Hours	**16**
Spring		
CPMT 1445	Computer Systems Maintenance	4
CPMT 1447	Computer System Peripherals	4
ITCC 1414	CCNA 1: Introduction to Networks	4
CPMT 1166	CAPSTONE: Computer Systems Technology Practicum	1
	Credit Hours	**13**
	Total Credit Hours	**29**

Computer and Advanced Technologies Specialization: Computer Support Specialist Associate of Applied Science

TSI Liable

Course	Title	Credit Hours
First Year		
Fall		
CPMT 1403	Introduction to Computer Technology	4
CPMT 1404	Microcomputer System Software	4
ITSC 1425	Personal Computer Hardware	4
CPMT 1443	Microcomputer Architecture	4
	Credit Hours	**16**
Spring		
CPMT 1445	Computer Systems Maintenance	4
CPMT 1447	Computer System Peripherals	4
ITCC 1414	CCNA 1: Introduction to Networks	4
	Credit Hours	**12**
Summer		
Social and Behavioral Sciences Elective [1]		3
Humanities Elective [1]		3
	Credit Hours	**6**
Second Year		
Fall		
CPMT 2433	Computer Integration	4
CPMT 2445	Computer System Troubleshooting	4
ITCC 1444	CCNA 2: Switching, Routing, and Wireless Essentials	4
	Credit Hours	**12**
Spring		
CPMT 2350	Industry Certification Preparation	3
COSC 1301	Introduction to Computing [1]	3
ENGL 1301	Composition I [1]	3
Math Elective [1]		4
CPMT 2166	CAPSTONE: Computer Systems Technology Practicum	1
	Credit Hours	**14**
	Total Credit Hours	**60**

[1] Identifies courses to fulfill minimum 15 credit hour General Education requirement