

INFORMATION TECHNOLOGY

Business Applications

Occupational Skills Award

The Business Applications Occupational Skills Award is designed for students who want to enter the Information Technology field specializing in business applications such as word processing, spreadsheets, and database.

Digital & Web Design

Occupational Skills Award

The Digital and Web Design Occupational Skills Award is designed to teach foundational skills in the area of web development and digital publishing for entry-level positions. Students learn skills in industry software such as Photoshop and InDesign, in addition to learning HTML, CSS, and JavaScript, used in web design.

Networking Fundamentals

Occupational Skills Award

The Networking Fundamentals OSA provides students with a foundation for careers in Information Technology with an emphasis in computer networks and networking hardware.

Computer Applications Specialist

Certificate

This specialization prepares students to meet the demand for advanced skills and knowledge in today's essential business applications, such as spreadsheet, database management systems and multimedia software. The courses in this certificate prepare students for Microsoft and Adobe industry certifications, as students learn to utilize industry software for word processing, presentation, spreadsheet, as well as digital publishing software such as InDesign. Credit hours earned in this certificate transfer to other specializations within our program, such as the Computer and Information Technologies Certificate and the Information Systems AAS and can also be used toward the Bachelor of Applied Technologies in Computer and Information Technologies degree (BAT-CIT).

Multimedia Specialist

Certificate

This specialization prepares students in the multimedia side of technology. Students in this program master interactive digital media software, applying their skills in photo editing, digital publishing and web development. The courses in this certificate prepare students for Microsoft and Adobe industry certifications, as they learn to utilize industry software such as Excel, Access, InDesign, and Photoshop. In addition, students will learn to create web pages utilizing HTML, CSS, and JavaScript. Credit hours earned in this certificate transfer to other specializations within our program, such as the Computer and Information Technologies Specialist and the Information Systems AAS and can be used toward the Bachelor of Applied Technologies in Computer and Information Technologies degree (BAT-CIT).

Information and Network Systems

Certificate

This program of study prepares students for a career in the Information Technology with hands-on instruction on installing, maintaining, and troubleshooting various operating systems, as well as computers and computer networks. Students also learn about network services, servers, and computer virtualization. Credit hours earned in this certificate can transfer to the Network Systems AAS or the Information Systems AAS and may also be used toward the Bachelor of Applied Technologies in Computer and Information Technologies degree (BAT-CIT).

Computer and Information Technologies Specialist

Certificate

This program of study provides skills and knowledge in today's leading business software applications, computer networking and operating systems. Graduates in this program will also learn skills in web design and computer programming. Credit hours earned transfer to the Network Systems AAS, the Information Systems AAS, and can also transfer to the Bachelor of Applied Technologies in Computer and Information Technologies degree (BAT-CIT).

Specialization: Information Systems

Associate of Applied Science

This program of study provides students with skills in a variety of business software applications including spreadsheet, digital publishing and database management systems. Through hands-on learning, students gain essential skills in computer networks, computer programming, and multiple operating systems through virtualization. Students in this program are also prepared for Microsoft and Adobe industry certifications. In collaboration with Information Technology industry partners, students also participate in an internship to practice their skills and gain valuable industry experience.

Graduates of this degree will possess the skills to enter the IT workforce at local businesses, school districts, banks and hospitals. Credit hours earned transfer to the Computer and Information Technologies Bachelor of Applied Technologies degree.

Specialization: Network Systems

Associate of Applied Science

This specialization provides students with hands-on instruction to manage computers, computer networks and network services. Students will gain experience with multiple operating systems, server administration, programming, network security, as well as desktop and network virtualization. In collaboration with Information Technology industry partners, students also participate in an internship to practice their skills and gain valuable industry experience. Credit hours earned transfer to the Computer and Information Technologies Bachelor of Applied Technologies degree.

In partnership with the Cisco Networking Academy®, this degree prepares students for the Cisco Certified Network Associate certification. Additionally, as a CompTIA Academy, students are also prepared for Server+ and Network+ industry certifications.

Program Learning Outcomes
Computer Applications Specialist Certificate

- 1. Graduates will be able to use advanced features in business applications.
- 2. Graduates will be able to use data analysis features.
- 3. Graduates will be able to create professional publications.

Multimedia Specialist Certificate

- 1. Graduates will be able to create digital media assets using industry software.
- 2. Graduates will be able to create and maintain web pages.
- 3. Graduates will be able to create professional publications.

Information and Network Systems Certificate

- 1. Graduates will be able to implement small-to-medium network systems.
- 2. Graduates will be able to install operating systems.
- 3. Graduates will be able to create virtual machines.

Computer and Information Technologies Specialist Certificate

- 1. Graduates will be able to implement small-to-medium network systems.
- 2. Graduates will be able to install operating systems.
- 3. Graduates will be able to create professional publications.

Specialization: Information Systems, Associate of Applied Science

- 1. Graduates will be able to implement small-to-medium network systems.
- 2. Graduates will be able to install operating systems.
- 3. Graduates will be able to create professional publications.
- 4. Graduates will be able to code computer programs.
- 5. Graduates will be able to create professional publications.

Specialization: Network Systems, Associate of Applied Science

- 1. Graduates will be able to implement enterprise network systems.
- 2. Graduates will be able to install operating systems.
- 3. Graduates will be able to administer server directory services.
- 4. Graduates will be able to code computer programs.
- 5. Graduates will be able to administer network services.

Advisory Committee Members

David Culberson, Chief Technology Officer, Sharyland ISD
Diana Berger, Operations Manager, NetSync Network Solutions
Adan Mendoza, Cybersecurity Specialist, Valley Telephone Corp.
Margarita Pena, Chief Experience Officer, Interlace Health
Daira Natividad, Technology Solutions Specialist, City of San Juan

Occupational Skills Award

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Certificates

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Associate Degrees

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Business Applications Occupational Skills Award

TSI Exempt

Course	Title	Credit Hours
Fall		
ITSC 1409	Integrated Software Applications I	4
ITSW 2434	Advanced Spreadsheets	4
ITSE 2409	Database Programming	4
Credit Hours		12
Total Credit Hours		12

Digital & Web Design Occupational Skills Award

TSI Exempt

Course	Title	Credit Hours
Fall		
IMED 1445	Interactive Digital Media I	4
ARTC 1413	Digital Publishing I	4
ITSE 1411	Beginning Web Page Programming	4
Credit Hours		12
Total Credit Hours		12

Networking Fundamentals Occupational Skills Award

TSI Exempt

Course	Title	Credit Hours
Fall		
ITNW 1451	Fundamentals of Wireless LANs	4
ITSC 1405	Introduction to PC Operating Systems	4
ITCC 1414	CCNA 1: Introduction to Networks	4
Credit Hours		12
Total Credit Hours		12

Computer Applications Specialist Certificate

TSI Exempt

100% Online

Course	Title	Credit Hours
Fall		
ITSC 1409	Integrated Software Applications I	4
ITSW 2434	Advanced Spreadsheets	4
Credit Hours		8
Spring		
ITSE 2409	Database Programming ¹	4
ARTC 1413	Digital Publishing I	4
Credit Hours		8
Total Credit Hours		16

¹ Capstone: Successfully passing ITSE 2409 Database Programming.

Multimedia Specialist Certificate

TSI Exempt

100% Online

Course	Title	Credit Hours
Fall		
ITSC 1409	Integrated Software Applications I	4
IMED 1445	Interactive Digital Media I	4
Credit Hours		8
Spring		
ARTC 1413	Digital Publishing I ¹	4
ITSE 1411	Beginning Web Page Programming	4
Credit Hours		8
Total Credit Hours		16

¹ Capstone: Successfully passing ARTC 1413 Digital Publishing I.

Information and Network Systems Certificate

TSI Exempt

Course	Title	Credit Hours
Fall		
ITSC 1409	Integrated Software Applications I	4
ITSC 1405	Introduction to PC Operating Systems	4
ITSC 1425	Personal Computer Hardware	4
ITCC 1414	CCNA 1: Introduction to Networks	4
Credit Hours		16
Spring		
ITSE 1411 or ITSE 1402	Beginning Web Page Programming or Computer Programming	4
ITCC 1444	CCNA 2: Switching, Routing, and Wireless Essentials	4
ITNW 1454	Implementing and Supporting Servers ¹	4
Credit Hours		12
Total Credit Hours		28

¹ Capstone: Successfully passing ITNW 1454 Implementing and Supporting Servers.

Computer and Information Technologies Specialist Certificate

TSI Exempt

Course	Title	Credit Hours
Fall		
ITSC 1409	Integrated Software Applications I	4
ITSC 1405	Introduction to PC Operating Systems	4
ITSE 1411	Beginning Web Page Programming	4
ITCC 1414	CCNA 1: Introduction to Networks	4
Credit Hours		16
Spring		
ARTC 1413 or IMED 1445	Digital Publishing I or Interactive Digital Media I	4
ITSE 1402 or ITSE 2409	Computer Programming or Database Programming	4
ITSW 2434 or ITSE 2402	Advanced Spreadsheets or Intermediate Web Programming	4
ITCC 1444	CCNA 2: Switching, Routing, and Wireless Essentials	4
Credit Hours		16
Total Credit Hours		32

¹ Capstone: Successfully passing ITCC 1444 CCNA 2: Switching, Routing, and Wireless Essentials.

Information Technology Specialization: Information Systems Associate of Applied Science

TSI Liable

Course	Title	Credit Hours
First Year		
Fall		
ITSC 1409	Integrated Software Applications I	4
ITSC 1405	Introduction to PC Operating Systems	4
ITSC 1425	Personal Computer Hardware	4
ITCC 1414	CCNA 1: Introduction to Networks	4
Credit Hours		16
Spring		
ITSE 1411	Beginning Web Page Programming	4
ITCC 1444	CCNA 2: Switching, Routing, and Wireless Essentials	4
ITNW 1454	Implementing and Supporting Servers	4
ARTC 1413 or IMED 1445	Digital Publishing I or Interactive Digital Media I	4
Credit Hours		16
Summer		
Humanities Elective ¹		3
Credit Hours		3
Second Year		
Fall		
Speech Elective ¹		3
ITSW 2434 or ITSE 2402	Advanced Spreadsheets or Intermediate Web Programming	4

ITSE 1402 or ITSE 2409	Computer Programming or Database Programming	4
Social and Behavioral Sciences Elective ¹		3
Credit Hours		14
Spring		
ENGL 1301	Composition I ¹	3
MATH 1332 or MATH 1414	Contemporary Mathematics ¹ or College Algebra	3-4
ITSC 2439	Personal Computer Help Desk Support	4
ITSC 2165	CAPSTONE: Systems Administration Practicum	1
Credit Hours		11-12
Total Credit Hours		60-61

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

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

Information Technology Specialization: Network Systems Associate of Applied Science

TSI Liable

Course	Title	Credit Hours
First Year		
Fall		
ITSC 1409	Integrated Software Applications I	4
ITSC 1405	Introduction to PC Operating Systems	4
ITSC 1425	Personal Computer Hardware	4
ITCC 1414	CCNA 1: Introduction to Networks	4
Credit Hours		16
Spring		
ITNW 1451	Fundamentals of Wireless LANs	4
ITSE 1411 or ITSE 1402	Beginning Web Page Programming or Computer Programming	4
ITCC 1444	CCNA 2: Switching, Routing, and Wireless Essentials	4
ITNW 1454	Implementing and Supporting Servers	4
Credit Hours		16
Summer		
Humanities Elective ¹		3
Credit Hours		3
Second Year		
Fall		
ITNW 2435	Network Troubleshooting and Support	4
Speech Elective ¹		3
Social and Behavioral Sciences Elective ¹		3
ITCC 2420	CCNA 3: Enterprise Networking, Security, and Automation	4
Credit Hours		14
Spring		
MATH 1332 or MATH 1414	Contemporary Mathematics ¹ or College Algebra	3-4
ENGL 1301	Composition I ¹	3
ITCC 2443	Network Security	4
ITNW 2164	CAPSTONE: Network Practicum	1
Credit Hours		11-12
Total Credit Hours		60-61