Information Technology Career Cluster

The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network Analysts.

Statewide Program of Study: *Networking Systems*

The Networking Systems program of study focuses on occupations and educational opportunities associated with designing and implementing computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. This program of study includes analysis of data processing challenges to implementing and improving computer systems.

Secondary Courses for High School Credit

Level 1	• Principles of Information Technology
Level 2	• Computer Maintenance + Lab (ITSC1325/ITSC1305)* • Business Information Management I (BCIS1305*/POFI2301)
Level 3	• Networking + Lab (ITNW1358/ITNW1325)*
Level 4	• Practicum in Information Technology (ITSY1300/ITSY1342)*

Aligned Advanced Academic Courses

Dual Credit	BCIS1305 Business Computer Applications POFI2301 Microsoft Word ITSC1325 Personal Computer Hardware ITSC1305 Introduction to PC Operating Systems ITSY1300 Fundamentals of Information Security ITSY1342 Information Technology Security *TVCC's Computer Science Network & Security OSA

Students should be advised to consider these course opportunities to enrich their preparation. AP courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

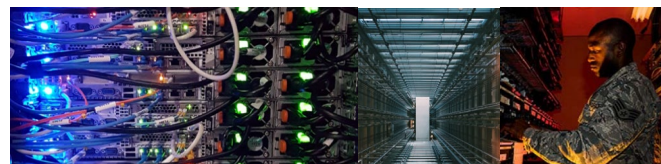| Work-Based Learning Activities	• Intern at a local education, public service, or technology organization to develop skills in installing hardware and software • Interview a network administrator to learn about their career path and what credentials they earned to be successful in their role
Expanded Learning Opportunities	• Participate in a Hackathon • Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

• CompTIA A+ Certification

• CompTIA IT Fundamentals+

Example Postsecondary Opportunities

Apprenticeships
• Network Engineer Apprenticeship

Associate Degrees
• Computer Systems Networking and Telecommunications
• Network and System Administration

Bachelor's Degrees
• Computer and Information Sciences
• Information Technology

Master's, Doctoral, and Professional Degrees
• Computer Science
• Information Technology

Additional Stackable IBCs/License
• Aruba Certified Mobility Associate (ACMA)

Example Aligned Occupations

Computer Network Support Specialists
Median Wage: $65,646
Annual Openings: 1,634
10-Year Growth: 19%

Computer Systems Analysts
Median Wage: $101,716
Annual Openings: 4,985
10-Year Growth: 19%

Network and Computer Systems Administrators
Median Wage: $85,375
Annual Openings: 2,900
10-Year Growth: 20%

Networking Systems

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Successful completion of the Networking Systems program of study will fulfill requirements of the Business and Industry endorsement.