



# 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 | <ul style="list-style-type: none"> <li>Principles of Information Technology</li> </ul>  |
| Level 2 | <ul style="list-style-type: none"> <li>Computer Maintenance + Lab (ITSC1325/ITSC1305)*</li> <li>Foundations of Business Communication &amp; Tech* (BCIS1305*/POFI2301)<br/>*PC Support OSA</li> </ul> |
| Level 3 | <ul style="list-style-type: none"> <li>Networking (ITNW1325)*</li> </ul>  |
| Level 4 | <ul style="list-style-type: none"> <li>Practicum in Information Technology (ITSY1300/ITSY1342)*<br/>*TVCC's Network &amp; Security OSA</li> </ul>   |

### Aligned Advanced Academic Courses

#### Dual Credit

BCIS1305	Business Computer Applications*
POFI2301	Microsoft Word
ITSC1325	Personal Computer Hardware
ITSC1305	Introduction to PC Operating Systems
ITNW1325	Fundamentals of Networking Technologies
ITSY1300	Fundamentals of Information Security
ITSY1342	Information Technology Security

### Work-Based Learning and Expanded Learning Opportunities

#### Work-Based Learning Activities

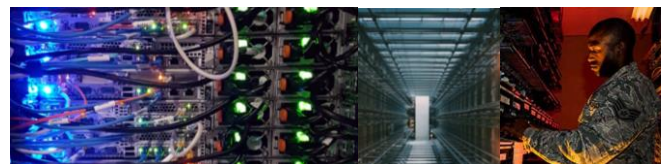
- Intern at a local education, public service, or technology organization to develop skills in installing hardware and software
- Interview a network administrator to learn about their career path and what credentials they earned to be successful in their role

#### Expanded Learning Opportunities

- Participate in a Hackathon
- Participate in TSA

### Aligned Industry-Based Certifications

- CompTIA A+ Certification
- CompTIA Tech+



### 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: \$63,738  
Annual Openings: 1,018  
10-Year Growth: 19%

#### Computer Systems Analysts

Median Wage: \$107,198  
Annual Openings: 4,559  
10-Year Growth: 19%

#### Network and Computer Systems Administrators

Median Wage: \$92,363  
Annual Openings: 2,292  
10-Year Growth: 20%

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

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/it-networking-systems-extendedpptx.pdf>