



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.

Offered at: TCHS



Secondary Courses for High School Credit

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|----------------|--|
| Level 1 | <ul style="list-style-type: none"> Principles of Information Technology |
| Level 2 | <ul style="list-style-type: none"> Computer Maintenance |
| Level 3 | <ul style="list-style-type: none"> Networking |
| Level 4 | <ul style="list-style-type: none"> Practicum in Information Technology |

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by local education agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB 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

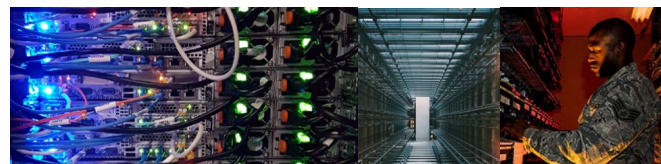
- Intern at a local education, public service, or technology organization to develop skills in installing hardware and software
- Interview a network administrator to learn about their career path and what credentials they earned to be successful in their role

Expanded Learning Opportunities

- Participate in a Hackathon
- Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

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| <ul style="list-style-type: none"> Cisco 100-490 RSTECH Supporting Cisco Routing and Switching Network Devices Cisco CCNA (200-301) Implementing and Administering Cisco Solutions CompTIA A+ Certification CompTIA IT Fundamentals+ CompTIA Network+ CompTIA Server+ Computer Networking Fundamentals - Job Ready | <ul style="list-style-type: none"> Google Cloud Certified Professional - Cloud Architect Information Technology Specialist: Networking Microsoft 365 Fundamentals Microsoft Azure Data Fundamentals Microsoft Security, Compliance, and Identity Fundamentals Cloud Essentials+ CompTIA Linux+ Cybersecurity Fundamentals |
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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%

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>



Information Technology Career Cluster

Statewide Program of Study: Networking Systems

Course Information

Level 1

Course	Prerequisites Corequisites	Local Course #
Principles of Information Technology 13027200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	7916

In Principles of Information Technology, students will develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students will enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.

Level 2

Course	Prerequisites Corequisites	Local Course #
Computer Maintenance 13027300 (1 credit)	Prerequisites: : Principles of Information Technology Corequisites: None *New for 2026-2027	7917

In Computer Maintenance, students will acquire knowledge of computer maintenance and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer maintenance. Students will apply technical skills to address the IT industry and emerging technologies.

Level 3

Course	Prerequisites Corequisites	Career Clusters
Networking 13027400 (1 credit)	Prerequisites: Computer Maintenance Corequisites: None *New for 2027-2028	7918

In Networking, students will develop knowledge of the concepts and skills related to data networking technologies and practices in order to apply them to personal or career development. To prepare for success, students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

Level 4

Course	Prerequisites Corequisites	Local Course #
Practicum in Information Technology 13028000 (2 credits)	Prerequisites: Networking Corequisites: None *New for 2028-2029	7919

In the Practicum in Information Technology, students will gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation, and assessment of products, services, and systems. Knowledge and skills in the proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, IT experience, and product development may be conducted in a classroom setting with an industry mentor, as an unpaid or paid internship, as part of a capstone project, or as career preparation.

For additional information on the **Information Technology** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>