

# 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.

## Endorsement: Business & Industry Statewide Program of Study: Cybersecurity & Networking Systems

The Cybersecurity program of study focuses on occupational and educational opportunities associated with planning, implementing, upgrading, or monitoring security measures for the protection of computer networks and information. This program of study includes responding to computer security breaches and viruses and administering network security measures.

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

- 9<sup>th</sup> Grade  Principles of Information Technology (Level 1)
- 10<sup>th</sup> Grade  Computer Maintenance + Computer Maintenance Lab (Level 2) (KCC)
- 11<sup>th</sup> Grade  Networking (Level 3) (KCC)
- 12<sup>th</sup> Grade  Practicum in Information Technology (Level 4) (KCC)

A CTE Completer is a student who completes three or more CTE courses for four or more credits including one Level 3 or 4 (advanced level) CTE course within a program of study will fulfill the requirements of a Business and Industry Endorsement.

### Aligned Industry-Based Certifications

- CompTIA A+
- CompTIA Network+
- CompTIA Security+



### Work-Based Learning and Expanded Learning Opportunities

#### Work-Based Learning Activities

- Intern at a local bank, hospital, or government office to develop skills in implementing security measures
- Interview with an information security analyst to learn how they plan for, monitor, and upgrade security measures at their organization

#### Expanded Learning Opportunities

- Participate in a Hackathon
- Participate in TSA or SkillsUSA

#### NAVIANCE ACCESS

All Killeen ISD students (7<sup>th</sup> – 12<sup>th</sup> graders) should login to their Naviance account through Clever.

Log into Naviance by clicking the Clever logo or link and use the College SuperMatch Tool to find colleges offering degree plans in this field.

<https://clever.com/in/killeenisd>



Killeen ISD does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Rhea Bell, Title IX Coordinator, 902 N. 10<sup>th</sup> St., Killeen, TX 76541, 254-336-2822, [Rhea.bell@killeenisd.org](mailto:Rhea.bell@killeenisd.org). Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).



### Examples Postsecondary Opportunities

#### Associate Degrees

- Computer and Information Systems Security
- Computer Programming

#### Bachelor's Degrees

- Computer Science
- Computer Software Engineering

#### Master's, Doctoral, and Professional Degrees

- Computer and Information Systems Security/Auditing/Information Assurance
- Computer Software Engineering

#### Additional Stackable IBCs/License

- Certified Ethical Hacker (CEH)



### Example Aligned Occupations

#### Computer User Support Specialists

Median Wage: \$51,411  
Annual Openings: 5,757  
10-Year Growth: 21%

#### Software Developers

Median Wage: \$111,705  
Annual Openings: 15,324  
10-Year Growth: 36%

#### Information Security Analysts

Median Wage: \$110,268  
Annual Openings: 1,719  
10-Year Growth: 49%

Data Source: Texas Wages, 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

*Endorsement: Business & Industry*

*Statewide Program of Study: Cybersecurity & Networking Systems*



## Course Information

**IT IS IN THE BEST INTEREST OF THE STUDENT TO TAKE ALL COURSES LISTED IN EACH GRADE**

Level 1 9 <sup>th</sup> Grade	Course	Prerequisites   Corequisites	Career Clusters
	<b>Principles of Information Technology*</b> 13027200 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
Level 2 10 <sup>th</sup> Grade	Course	Prerequisites   Corequisites	Career Clusters
	<b>Computer Maintenance + Computer Maintenance Lab*</b> 13027310 (2 credits)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	
Level 3 11 <sup>th</sup> Grade	Course	Prerequisites   Corequisites	Career Clusters
	<b>Networking*</b> 13027400 (1 credit)	<b>Prerequisites:</b> None <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> Principles of Information Technology, Computer Maintenance, and Computer Maintenance Lab <b>Recommended Corequisites:</b> None	
Level 4 12 <sup>th</sup> Grade	Course	Prerequisites   Corequisites	Career Clusters
	<b>Practicum in Information Technology*</b> First Time Taken: 13028000 (2 credits) Second Time Taken: 13028010 (2 credits)	<b>Prerequisites:</b> A minimum of two high school information technology (IT) courses <b>Corequisites:</b> None <b>Recommended Prerequisites:</b> None <b>Recommended Corequisites:</b> None	

\* Indicates course is included in more than one program of study.

## Armed Forces Career Information

- Cyber Network Defender – U.S. Army
- Cyber Operations Specialist – U.S. Army
- Cyber Security – U.S Air Force
- Cyber Systems Operator – U.S. Air Force
- Computer Systems Programmer – U.S. Air Force
- This is not a comprehensive list

### Local Armed Forces Recruiter Contact Information:

- Air Force – (254) 247-8992
- Army – (254) 690-8554
- Army National Guard – (903) 262-6355
- Marines – (254) 690-2626
- Navy – (254) 690-2096

**See your school counselor to connect with a military recruiter for career counseling and to take the ASVAB in high school.**