

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.

Cybersecurity



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.

Secondary Courses for High School Credit

Level 1

- Foundations of Cybersecurity

Level 2

- AP Computer Science Principles

Level 3

- AP Computer Science A-Math
- AP Computer Science A-LOTE

Level 4

- Practicum in Science, Technology, Engineering and Mathematics – Cybersecurity (H) ¹



Postsecondary Opportunities

Associates 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

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
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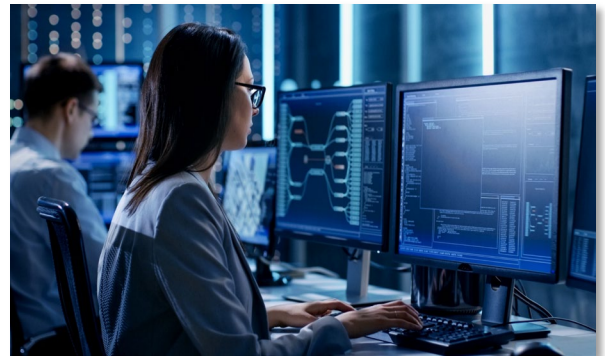
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| <ul style="list-style-type: none"> • Join Technology Student Association (TSA) | <ul style="list-style-type: none"> • Job shadow a cybersecurity analyst |
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Industry-Based Certifications

- CodeHS Cybersecurity Level 1 Certification ¹

Aligned Advanced Academic Courses

- AP Computer Science Principles
- AP Computer Science A-Math
- AP Computer Science A-LOTE



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Computer User Support Specialist	\$56,000	5,700	21%
Software Developers	\$117,500	15,300	36%
Information Security Analysts	\$115,500	1,700	50%

Successful completion of the Cybersecurity program of study will fulfill requirements of the STEM endorsement. Revised – May 2024

Cybersecurity Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE LEVEL(S)
Foundations of Cybersecurity	03580850 (1 credit)	None	9

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE LEVEL(S)
AP Computer Science Principles	A3580300 (1 credit)	Foundations of Cybersecurity	10

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE LEVEL(S)
AP Computer Science A-Math	A3580110 (1 credit)	AP Computer Science Principles	11
AP Computer Science A-LOTE	A3580120 (1 credit)		

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE LEVEL(S)
Practicum in Science, Technology, Engineering and Mathematics – Cybersecurity (H)	13037400 (2 credits)	AP Computer Science Principles	12

FOR ADDITIONAL INFORMATION ON THE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS CAREER CLUSTER
PLEASE CONTACT YOUR CAMPUS CTE COUNSELOR
<https://tea.texas.gov/cte>

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[Notification of Nondiscrimination in Career and Technical Education Programs.](#)