Cybersecurity

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS

COURSES

GRADE 9
Principles of Information Technology
Certification
Level 1

GRADE 10
Foundations of Cybersecurity
Level 2

GRADE 11
Networking/Lab
Certification
Level 3

GRADE 12
Practicum in Information Technology
OR Project-Based Research
Certification
Level 4

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
COMPTIA IT Fundamentals	STC Computer & Internet Specialist	System Networking, and LAN/WAN Management	Computer Systems Networking and Telecommunications	Computer Systems Analysis/Analyst
COMPTIA NET +	Certified Advanced Windows Forensic Examiner	Information Technology	Computer Systems Networking and Telecommunications	Information Technology
	SAP Certified Technology Professional System Security Architect	Computer and Information Sciences, General		
Google Analytics	Cisco Certified Network Professional Security Certification	Computer Science		
Additional industry based certification information is available from the TEA CTE Website				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Information Security Analysts	$91,915	814	29%
Network and Computer System Administrators	$82,597	2,814	19%
Computer Systems Analyst	$87,568	5,937	29%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

Join TSA
Job shadow a computer system analyst or information security analyst.

Work Based Learning Activities:

Obtain an industry based certification.

The Cybersecurity program of study includes the occupations and educational opportunities related to planning, implementing, upgrading, or monitoring security measure for the protection of computer networks and information. This program of study may also include exploration into responding to computer security breaches and virus and administering network security measures. The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Successful completion of the Cybersecurity program of study will fulfill requirements of a Business and Industry or STEM Endorsement. Approved Statewide Program of Study - September 2019 - Modified by Weslaco ISD Career & Technical Education

TEA
Texas Education Agency

Updated: 2/2022

COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Principles of Information Technology	13027200 (1 credit)	None	9-10
Fundamentals of Computer Science	03580140 (.5 to 1 credit)	None	9-12
Foundations of Cybersecurity	03580850 (1 credit)	None	9-12
Internetworking Technologies I	N1302803 (1 credit)	None	10-12
Computer Programming I	13027600 (1 credit)	None	10-12
Computer Science I	03580200 (.5 to 1 credits)	PREQ: Algebra I	9-12
AP Computer Science Principles	A3580300 (1 credit)	None	9-12
Computer Maintenance	13027300 (1 credit) 13027310 (2 credits)	None	10-12
Internetworking Technologies II	N1302804 (1 credit)	PREQ: Internetworking Technologies I	11-12
Engineering Applications of Computer Science Principles	N1303772 (1 credit)	None	10-12
Networking/Lab	13027400 (1 credit) 13027410 (2 credits)	None	10-12
Digital Forensics	03580360 (.5 to 1 credit)	None	9-12
AP Computer Science A	A3580110 (1 credit) A3580120 (1 credit)	None	9-12
Cybersecurity Capstone	03580855 (1credit)	None	11-12
Practicum in Information Technology	13028000 (2 credit) 13028005 (3 credit) 13028010 (2 credit) 13028015 (3 credit)	PREQ: Two high school Information Technology courses	12
Practicum in STEM	13037400 (2 credits) 13037405 (3 credits) 13037410 (2 credits) 13037415 (3 credits)	PREQ: Algebra I and Geometry	12
Project-Based Research	12701500 (1 credit)	None	11-12

FOR ADDITIONAL INFORMATION ON THE SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS CAREER CLUSTER, PLEASE CONTACT:

https://tea.texas.gov/cte