



Fundamentals of Computer Science (PLTW)

**Level 1**

AP Computer Science Principles (PLTW)

**Level 2**

AP Computer Science A-Math (PLTW)  
AP Computer Science B-LOTE  
Discrete Mathematics for Computer Science

**Level 3**

Cybersecurity Capstone (PLTW)

**Level 4**

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Associate Java SE 8	GIAC Reverse Engineering Malware	System Networking, and LAN/WAN Management	Computer Systems Networking and Telecommunications	Computer Systems Analysis/Analyst
Oracle Certified Database Associate	Certified Advanced Windows Forensic Examiner	Information Technology	Computer Systems Networking and Telecommunications	Information Technology
Cisco Certified Entry Networking Technician (CCENT)	SAP Certified Technology Professional System Security Architect	Computer and Information Sciences, General	Computer and Information Sciences, General	Computer and Information Sciences, General
CompTIA A+, Network+, Security+, and IT Fundamentals	Cisco Certified Network Professional Security Certification	Computer Science	Computer Science	Computer Science

Occupations	Median Wage	Annual Openings	% Growth
Information Security Analysts	\$91,915	814	29%
Network and Computer System Administrators	\$82,597	2,814	19%
Computer System Analysts	\$87,568	5,937	29%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES	
Exploration Activities:	Work Based Learning Activities:
Join TSA Job Shadow a computer system analyst or information security analyst.	Obtain an industry based certification.

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.

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 the Business and Industry or STEM endorsement if the math and science requirements are met. Revised - July 2020



# COURSE INFORMATION

COURSE NAME	SERVICE & COURSE ID	PREREQUISITS (PREQ) COREQUISITES (CREQ)	Grade
Fundamentals of Computer Science (PLTW)	03580140 / 6256 (1 credit)	None	9-12
AP Computer Science Principles (PLTW)	A3580300 / 6257 (1 credit)	Fundamentals of Computer Science (PLTW)	9-12
Discrete Mathematics for Computer Science	03580370 / 6255 (1 credit)	PREQ: Algebra II or Algebra II concurrent	11-12
AP Computer Science (PLTW)-MATH	A3580110 / 6258 (1 credit)	PREQ: AP Computer Science Principles (PLTW) or Algebra II or Algebra II concurrent	9-12
AP Computer Science- LOTE	A3580120 / 6258 (1 credit)	PREQ: AP Computer Science Principles (PLTW) or Algebra II or Algebra II concurrent	9-12
Cybersecurity Capstone	03580855 (1 credit)	None	11-12

## BISD Recommended Course Sequence

Grade	9 <sup>th</sup> Year	10 <sup>th</sup> Year	11 <sup>th</sup> Year	12 <sup>th</sup> Year
<b>Courses</b>	Fundamentals of Computer Science (PLTW)	AP Computer Science Principles (PLTW)	AP Computer Science A-Math (PLTW) AP Computer Science B-LOTE Discrete Mathematics for Computer Science	Cybersecurity Capstone (PLTW)