



AP Computer Science Principles  
Computer Science I

**Level 2**

Computer Science II

**Level 3**

Career Preparation I  
Independent Study in Technology  
Applications

**Level 4**

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.

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Association JAVA SE 8 Programmer	Certified Computing Professional	Computer Programming/ Programmer Genera	Management Information Systems, General	Computer Software Engineer
Oracle Certified Database Associate	Cloud Technology Associate Certification	Computer Software Engineer	Computer Software Engineer	Computer Science
Microsoft Technology Associate, Introduction to Programming Using Python, HTML or CSS	AEM 6 Developer	Computer Science	Computer Science	Information Science/ Studies
Microsoft Technology Associate, Introduction to Programming Using Java or Java Script	Certified Software Analyst	Certified Software Analyst	Information Science/ Studies	

Occupations	Median Wage	Annual Openings	% Growth
Software Developer, Systems Software	\$103,334	2,985	25%
Software Developers, Applications	\$104,499	6,311	30%
Computer Programmers	\$79,893	1,454	9%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES	
Exploration Activities:	Work Based Learning Activities:
Join TSA Participate in coding club at school	Obtain an industry-based certification.

The Programming and Software Development program of study explores the occupations and education opportunities associated with researching, designing, developing, and testing operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computer applications. This program of study may also include exploration into creating, modifying, and testing the codes, forms, and script that allow computer applications to run.



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.



# COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	Grade
AP Computer Science Principles	A3580300 (1 credit)	None	9-12
Computer Science I	03580200 (1 credit)	PREQ: Algebra I	9-12
Computer Science II	03580300 (1 credit)	PREQ: Algebra I, Computer Science I, or Fundamentals of Computer Science	11-12
Practicum in Science, Technology, Engineering, and Mathematics	13037400 (2 credit) 13037405 (3 credit) 13037410 (2 credit) 13037415 (3 credit)	PREQ: Algebra I and Geometry	12
Career Preparation I	12701300 (2 credit) 12701305 (3 credit)	None	11-12
Independent Study in Technology Applications	03580900 (1 credit)	None	12

FOR ADDITIONAL INFORMATION ON THE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS CAREER CLUSTER, PLEASE CONTACT: [CTE@tea.texas.gov](mailto:CTE@tea.texas.gov)  
<https://tea.texas.gov/cte>

(District) offers career and technical education programs in (types of programs offered). Admission to these programs is based on (admission standards). It is the policy of (District) not to discriminate on the basis of race, color, national origin, sex or handicap in its vocational programs, services or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended. It is the policy of (District) not to discriminate on the basis of race, color, national origin, sex, handicap, or age in its employment practices as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; the Age Discrimination Act of 1975, as amended; and Section 504 of the Rehabilitation Act of 1973, as amended. (District) will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs. For information about your rights or grievance procedures, contact the Title IX Coordinator at (physical address of Coordinator) (email address of Title IX Coordinator), (phone number of Title IX Coordinator), and the Section 504 Coordinator at (physical address of Coordinator), (email address of Section 504 Coordinator), (phone number of Section 504 Coordinator)