

**STEM**

**SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH**

# PROGRAMMING AND SOFTWARE DEVELOPMENT: COMPUTER SCIENCE STUDIES

## PROGRAM OF STUDY

The Computer Science 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.

Texas Data: Collected by TEA October 2019

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Software Developer, Systems Software	\$103,334	2,985	25%
Software Developers, Application	\$104,499	6,311	30%
Computer Programmers	\$79,893	1,454	9%



## RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Computer Science Principles AP
- 2 LEVEL** Computer Science I Advanced
- 3 LEVEL** Computer Science A AP, Computer Science IB SL
- 4 LEVEL** Computer Science III, Digital Forensics, Computer Science IB HL, Practicum in STEM: Computer Science Studies

**NOTE:** See reverse for additional course sequence options and endorsement requirements. Course descriptions and details can be found in the course catalog.

WORK-BASED LEARNING EXPERIENCES	CAREER AND TECHNICAL STUDENT ORGANIZATIONS
Industry Site Visits/Field Trips; Industry Guest Speakers; Internships/Externships.	UIL; National Technology Honor Society (NTHS); Computer Science Club; Robotics.



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.

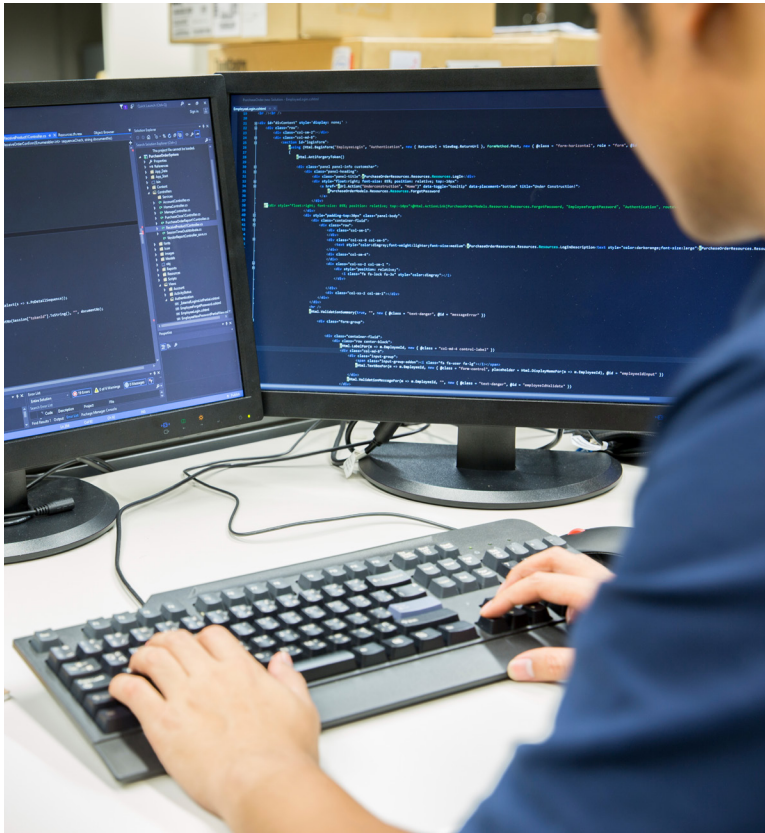
### Non-Discrimination Statement

It is the policy of Leander ISD not to discriminate on the basis of race, color, national origin, sex or handicap in its Career and Technology Education Programs, services, or activities. Leander ISD 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. Es norma de Leander ISD de no discriminar por motivos de raza, color, origen nacional, sexo o impedimento, en sus programas, servicios o actividades vocacionales. Leander ISD tomará las medidas necesarias para asegurar que la falta de habilidad en el uso de la lengua inglés no sea un obstáculo para la admisión o participación en todos los programas educativos y vocacionales.

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A student may earn a STEM endorsement by completing foundation and general endorsement requirements including Algebra II, Chemistry and Physics. Endorsement course options for the Computer Science Studies Program of Study are listed below.



## 7 CREDITS REQUIRED

### Required Courses (check prerequisites):

- Algebra II
- Chemistry
- Physics

### Choose 4 additional credits from the following:

- Fundamental of Computer Science
- Computer Science Principles AP
- Computer Science I Advanced
- Computer Science A AP
- Computer Science IB HL
- Computer Science IB SL
- Computer Science III
- Digital Forensics
- Mobile Application Development
- Practicum in STEM
- Independent Study in Technology Applications

**NOTE:** Students who do not complete Algebra II, Chemistry and Physics, but earn four credits in the Programming and Software Development Program of Study, are eligible to earn a Business and Industry Endorsement.

## NOTES:

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