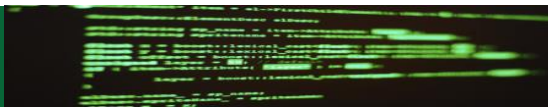


Information Technology Career Cluster

The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Programming and Software Statewide Program of Study



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.

Secondary Courses for High School Credit

Level 1

- Fundamentals of Computer Science 8th Grade

Level 2

- Computer Science I

Level 3

- Computer Science II

Level 4

- Practicum in Information Technology I or II - Programming

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Join TSA
- Participate in a coding club at school

Work-Based Learning Activities

- Obtain a programming IBC

Industry-Based Certifications

- TBD

Postsecondary Opportunities

Associates Degrees

- Computer Programming/Programmer General
- Computer Software Engineer
- Computer Science
- Certified Software Analyst

Bachelor's Degrees

- Management Information Systems, General
- Computer Software Engineer
- Computer Science
- Information Science/ Studies

Master's, Doctoral, and Professional Degrees

- Computer Software Engineer
- Computer Science
- Information Science/ Studies



Aligned Occupations

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%

Successful completion of the Programming and Software program of study will fulfill requirements of the Business and Industry endorsement and STEM endorsement if the math and science requirements are met. Revised – August 2022

Programming and Software Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Fundamentals of Computer Science 8 th Grade	03580140 (1 credit)	None	None

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Computer Science I	03580200 (1 credit)	None	Algebra I

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Computer Science II	03580300 (1 credit)	Algebra I, Computer Science I, or Fundamentals of Computer Science	None

Level 4

Course Name	Service ID	PREREQUISITES	COREQUISITES
Practicum in Information Technology I or II	13028000 (I = 2 credits) 13028010 (II = 2 credits)	Two high school Information Technology courses	None

FOR ADDITIONAL INFORMATION ON THE INFORMATION TECHNOLOGY CAREER CLUSTER,
PLEASE CONTACT: CTE@tea.texas.gov
<https://tea.texas.gov/cte>

Mabank ISD does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Mr. Clay Tracy, Assistant Superintendent of Human Resources, 310 E. Market Street, Mabank, TX 75147, 903-880-1305.

Further nondiscrimination information can be found at
[Notification of Nondiscrimination in Career and Technical Education Programs.](#)