



# Information Technology Career Cluster

The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network Analysts.

## Statewide Program of Study: Cybersecurity

The Cybersecurity program of study focuses on occupational and educational opportunities associated with planning, implementing, upgrading, or monitoring security measures for the protection of computer networks and information. This program of study includes responding to computer security breaches and viruses and administering network security measures.

### Secondary Courses for High School Credit

- |                |   |
|----------------|---|
| <b>Level 1</b> | <ul style="list-style-type: none"> <li>Principles of Information Technology</li> </ul>  |
| <b>Level 2</b> | <ul style="list-style-type: none"> <li>Foundations of Business Communications &amp; Tech* (BCIS1305*/POFI2301)</li> <li>Computer Maintenance + Lab (ITSC1325/ ITSC1305)*</li> </ul> |
| <b>Level 3</b> | <ul style="list-style-type: none"> <li>Networking + Lab (ITNW1358/ ITNW1325)*</li> </ul>  |
| <b>Level 4</b> | <ul style="list-style-type: none"> <li>Practicum in Information Technology (ITSY1300/ITSY1342)*</li> </ul>  |

### Aligned Advanced Academic Courses

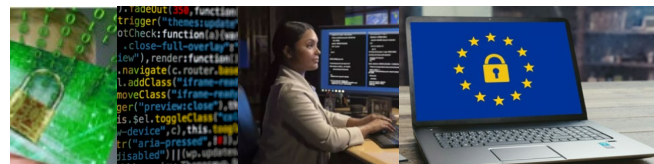
<b>AP</b>	AP Computer Science Principles AP Computer Science A
<b>Dual Credit</b>	BCIS1305 Business Computer Applications* POFI2301 Microsoft Word ITSC1325 Personal Computer Hardware ITSC1305 Introduction to PC Operating Systems ITSY1300 Fundamentals of Information Security ITSY1342 Information Technology Security *TVCC's Computer Science Network & Security OSA

### Work-Based Learning and Expanded Learning Opportunities

<b>Work-Based Learning Activities</b>	<ul style="list-style-type: none"> <li>Intern at a local bank, hospital, or government office to develop skills in implementing security measures</li> <li>Interview with an information security analyst to learn how they plan for, monitor, and upgrade security measures at their organization</li> </ul>
<b>Expanded Learning Opportunities</b>	<ul style="list-style-type: none"> <li>Participate in a Hackathon</li> <li>Participate in TSA</li> </ul>

### Aligned Industry-Based Certifications

- CompTIA A+ Certification
- CompTIA Tech+



### Examples Postsecondary Opportunities

#### Associate Degrees

- Computer and Information Systems Security
- Computer Programming

#### Bachelor's Degrees

- Computer Science
- Computer Software Engineering

#### Master's, Doctoral, and Professional Degrees

- Computer and Information Systems Security/Auditing/Information Assurance
- Computer Software Engineering

#### Additional Stackable IBCs/License

- Certified Ethical Hacker (CEH)



### Example Aligned Occupations

#### Computer User Support Specialists

Median Wage: \$51,823  
Annual Openings: 6,387  
10-Year Growth: 21%

#### Software Developers

Median Wage: \$127,000  
Annual Openings: 12,350  
10-Year Growth: 36%

#### Information Security Analysts

Median Wage: \$115,042  
Annual Openings: 1,760  
10-Year Growth: 49%

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.

