

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.

Information Technology Support and Services Statewide Program of Study



The Information Technology Support and Services program of study explores the occupations and educational opportunities associated with administering, testing, and implementing computer databases and applying knowledge of database management systems. This program of study may also include analyzing user requirements and problems to automate or improve existing systems and review computer system capabilities. This program of study may also include exploration into the research, design, or testing of computer or computer-related equipment for commercial, industrial, military, or scientific use.

Secondary Courses for High School Credit

Level 1

- Principles of Information Technology
- Geographic Information Systems

Level 2

- Computer Maintenance/Lab
- Raster Based GIS

Level 3

- Computer Technician Practicum
- Spatial Technology and Remote Sensing
- IT Troubleshooting

Level 4

- Computer Technician Practicum (2nd Time)
- Practicum of Information Technology
- Practicum in Entrepreneurship
- Intendent Study in Technology Applications
- Independent Study in Evolving/Emerging Technologies
- Project-Based Research
- Career Preparation I

Postsecondary Opportunities

Associates Degrees

- Computer and Information Sciences, General
- Computer and Information Systems Security/ Information Assurance
- Information Technology
- Computer Systems Networking and Telecommunications

Bachelor's Degrees

- Computer and Information Sciences, General
- Computer and Information Systems Security /Information Assurance
- Computer Engineering, General
- Computer Systems Networking and Telecommunications

Master's, Doctoral, and Professional Degrees

- Computer and Information Sciences, General
- Computer Systems Analysis/ Analyst
- Computer Engineering, General
- Information Technology

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Join TSA
- Job shadow a database administrator or computer hardware engineer

Work-Based Learning Activities

- Earn an IT certification

Industry-Based Certifications

- Business Information Processing
- Cloud Essentials+
- CompTIA A+ Certification
- CompTIA IT Fundamentals+
- Computer Repair Technology - Job Ready
- Google IT Support Professional Certificate
- Microsoft Security, Compliance, and Identity Fundamentals
- Microsoft 365 Fundamentals
- ESRI ArcGIS Desktop Entry*
 - IBC Sunsetting 8/31/25



Aligned Occupations

| Occupations | Median Wage | Annual Openings | % Growth |
|-------------------------------------|-------------|-----------------|----------|
| Database Administrator | \$83,075 | 1,063 | 19% |
| Computer Hardware Engineer | \$111,738 | 343 | 24% |
| Computer System Analyst and Support | \$87,568 | 5,937 | 29% |

Successful completion of the Information Technology Support and Services program of study will fulfill requirements of the Business and Industry endorsement or STEM endorsement if the math and science requirements are met.

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Information Technology Support and Services

Course Information

Level 1

| COURSE NAME | SERVICE ID | PREREQUISITES | COREQUISITES |
|--------------------------------------|---------------------|---------------|--------------|
| Principles of Information Technology | 13027200 (1 credit) | None | None |
| Geographic Information Systems | N1302805 (1 credit) | None | None |

Level 2

| COURSE NAME | SERVICE ID | PREREQUISITES | COREQUISITES |
|--------------------------|---|--------------------------------------|--------------|
| Computer Maintenance/Lab | 13027300 (1 credit) 13027310 (2 credits) | Principles of Information Technology | None |
| Raster Based GIS | N1302806 (1 credit) | None | None |

Level 3

| COURSE NAME | SERVICE ID | PREREQUISITES | COREQUISITES |
|---------------------------------------|--|---------------|--------------|
| Computer Technician Practicum | 13027500 (2 credits) 13027505 (3 credits) | None | None |
| Spatial Technology and Remote Sensing | N1302807 (1 credit) | None | None |
| IT Troubleshooting | N1302815 (1 credit) | None | None |

Level 4

| COURSE NAME | SERVICE ID | PREREQUISITES | COREQUISITES |
|---|--|--|--------------|
| Computer Technician Practicum (2nd Time) | 13027510 (2 credits) 13027515 (3 credits) | Computer Technician Practicum | None |
| Practicum in Information Technology | 13028000 (2 credits) 13028005 (3 credits) 13028010 (2 credits) 13028015 (3 credits) | A minimum of two high school Information Technology (IT) courses | None |
| Practicum in Entrepreneurship | N1303425 (2 credits) | None | None |
| Independent Study in Technology Applications | 03580900 (1 credit) | None | None |
| Independent Study in Evolving/Emerging Technologies | 03581500 (1 credit) | None | None |
| Project-Based Research | 12701500 (1 credit) | None | None |
| Career Preparation I | 12701300 (2 credits) 12701305 (3 credits) | None | None |

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

Information Technology Support and Services

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