



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: Programming and Software Development

The Programming and Software Development program of study focuses on occupational and educational opportunities associated with researching, designing, developing, testing, and 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 includes creating, modifying, and testing the codes, forms, and script that allow computer applications to run.



Secondary Courses for High School Credit

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| Level 1 | <ul style="list-style-type: none"> • Principles of Information Technology (1 credit) <ul style="list-style-type: none"> • 1850CT; 9-12 grade • 1 semester at Ben Barber • CompTIA IT Tech+ Possible |
| Level 2 | <ul style="list-style-type: none"> • Computer Science I (1 credit) <ul style="list-style-type: none"> • 1050CT; 9-12 grade • 1 semester at Ben Barber • LOTE credit • <i>Prerequisite: Algebra I</i> • AP Computer Science Principles (1 credit) <ul style="list-style-type: none"> • 1266CT; 9-12 grade • 1 semester at Ben Barber • LOTE and Weighted Credit • <i>Prerequisite: Algebra I</i> • Entrepreneurship (1 credit) <ul style="list-style-type: none"> • 1720CT or 1720A/B; 9-12 grade • 1 semester at Ben Barber or 2 semesters at Home Campus |
| Level 3 | <ul style="list-style-type: none"> • Computer Science II (1 credit) <ul style="list-style-type: none"> • 1051CT; 9-12 grade • 1 semester at Ben Barber • LOTE credit • <i>Prerequisite: Computer Science I OR AP Computer Science Principles</i> • IT Specialist Certification Possible • AP Computer Science A (2 credits) <ul style="list-style-type: none"> • 1055CA/CB; 10-12 grade • 2 semesters at Ben Barber • Math/LOTE Credit and Weighted Credit • <i>Prerequisite: AP Computer Science Principles</i> |
| Level 4 | <ul style="list-style-type: none"> • Computer Science III (1 credit) <ul style="list-style-type: none"> • 1056CT; 11-12 grade • 1 semester at Ben Barber • LOTE credit • <i>Prerequisite: Computer Science II</i> • Certified Entry-Level Python Programmer Certification Possible • Practicum in Information Technology (2 credits) <ul style="list-style-type: none"> • 1851CA/CB; 12 grade • 2 semesters at Ben Barber • <i>Prerequisite: Complete Level 1 or 2 AND Level 3 or 4 AND Selection Process</i> • Microsoft Azure Data Fundamentals Certification Possible |



Example Postsecondary Opportunities

Apprenticeships

- Computer Programmer Apprenticeship

Associate Degrees

- Computer Programming
- Web Page, Digital/Multimedia and Information Resources Design

Bachelor's Degrees

- Data Science
- Computer Engineering

Master's, Doctoral, and Professional Degrees

- Management Science
- Computer Software Engineering

Additional Stackable IBCs/License

- AWS Certified Developer Associate



Example Aligned Occupations

Computer User Support Specialists

Median Wage: \$51,411
Annual Openings: 5,757
10-Year Growth: 21%

Software Developers

Median Wage: \$111,705
Annual Openings: 15,324
10-Year Growth: 36%

Computer Programmers

Median Wage: \$87,997
Annual Openings: 1,176
10-Year Growth: 4%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>