



Information Technology Career Cluster

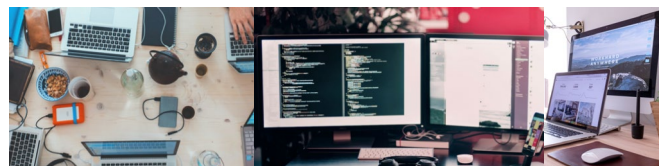
The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network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

Statewide Program of Study: Web Development

The Web Development program of study focuses on occupational and educational opportunities associated with designing, creating, and modifying websites. It includes integration of websites with other computer applications and conversion of written, graphic, audio, and video components to compatible web formats using software designed to facilitate the creation of web and multimedia content.

Secondary Courses for High School Credit

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|----------------|--|
| Level 1 | <ul style="list-style-type: none"> Principles of Information Technology Fundamentals of Computer Science Digital Media Web Communications |
| Level 2 | <ul style="list-style-type: none"> Computer Science I Foundations of User Experience Entrepreneurship I |
| Level 3 | <ul style="list-style-type: none"> Web Design Web Game Development Advanced User Experience Design |
| Level 4 | <ul style="list-style-type: none"> Independent Study in Technology Applications Independent Study in Evolving/Emerging Technologies Career and Technical Education Project-Based Capstone Practicum in Information Technology Practicum in Information Technology + Extended Practicum in Information Technology Practicum in Entrepreneurship Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation |



Example Postsecondary Opportunities

Associate Degrees

- Web Page, Digital/Multimedia and Information Resources Design
- Web/Multimedia Management

Bachelor's Degrees

- Computer and Information Sciences
- Information Technology

Master's, Doctoral, and Professional Degrees

- Computer and Information Sciences
- Computer Software Engineering

Additional Stackable IBCs/License

- HTML Developer

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern at a nonprofit or small business to support developing or updating their website and digital media
- Shadow a web designer to learn about how they developed their digital design skills and what factors they consider when developing a website

Expanded Learning Opportunities

- Create a website
- Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

- | | |
|--|--|
| <ul style="list-style-type: none"> Adobe Certified Professional in Web Design Certified Associate JavaScript Programmer Certified Associate Web Developer Certification Certified Entry-Level JavaScript Programmer Certified Professional: Programmer Certified User: Programmer Certified User: VR Developer Certified Web and Mobile App Developer Apprentice (CWMA-Apprentice) Certified Web Animator Associate (CWAA) Certified Web Designer Associate (CWDSA) Information Technology Specialist: HTML and CSS Information Technology Specialist: HTML5 Application Development Information Technology Specialist: JavaScript ITIL 4 FOUNDATION | <ul style="list-style-type: none"> Knowledge Pillars: HTML and CSS Coding Specialist (HCCS) Knowledge Pillars: JavaScript Coding Specialist (JSCS) Knowledge Pillars: WordPress Certified Administrator (WCA) Knowledge Pillars: WordPress Certified Developer (WCD) Knowledge Pillars: WordPress Certified Editor (WCE) Microsoft Certified: Azure Data Fundamentals Microsoft Certified: Azure Solutions Architect Expert Oracle Certified Associate Java SE 8 Programmer Tosa JavaScript (Advanced or Expert) Tosa Web Developer (Advanced or Expert) Web Design - Job Ready |
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Example Aligned Occupations

Web Developers

Median Wage: \$93,184
Annual Openings: 602
10-Year Growth: 24%

Software Developers

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

Computer and Information Systems Managers

Median Wage: \$164,838
Annual Openings: 5,781
10-Year Growth: 26%

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/it-web-development-extendedpptx.pdf>



Information Technology Career Cluster

Statewide Program of Study: Web Development

Course Information

Level 1

Course	Prerequisites Corequisites	Career Clusters
Principles of Information Technology* 13027200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Fundamentals of Computer Science* 03580140 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Digital Media 13027800 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Web Communications 03580810 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 2

Course	Prerequisites Corequisites	Career Clusters
Computer Science I* 03580200 (1 credit)	Prerequisites: Algebra I Corequisites: Algebra I Recommended Prerequisites: None Recommended Corequisites: None	
Foundations of User Experience 13027525 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	

Level 3

Course	Prerequisites Corequisites	Career Clusters
Web Design 03580820 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
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* Indicates course is included in more than one program of study in this career cluster.

For additional information on the **Information Technology** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



Information Technology Career Cluster

Statewide Program of Study: Web Development

Course Information

Level 3

Course	Prerequisites Corequisites	Career Clusters
Web Game Development 03580830 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Web Design Recommended Corequisites: None	 
Advanced User Experience Design 13027530 (1 credit)	Prerequisites: Foundations of User Experience Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	 

Level 4

Course	Prerequisites Corequisites	Career Clusters
Independent Study in Technology Applications* First Time Taken 03580900 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: A minimum of one credit from the courses in the Information Technology career cluster Recommended Corequisites: None	 
Independent Study in Evolving/Emerging Technologies* First Time Taken 03581500 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: A minimum of one credit from the courses in the Information Technology career cluster Recommended Corequisites: None	 
Career and Technical Education Project-Based Capstone* First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	         
Practicum in Information Technology* First Time Taken: 13028000 (2 credits) Second Time Taken: 13028010 (2 credits)	Prerequisites: A minimum of two high school information technology (IT) courses Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

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Statewide Program of Study: Web Development

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Practicum in Information Technology + Extended Practicum in Information Technology* First Time Taken: 13028005 (3 credits) Second Time Taken: 13028015 (3 credits)	Prerequisites: A minimum of two high school information technology (IT) courses Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II, or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	
Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship* First Time Taken: 13011121 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II, or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

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