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.

Web Development
Statewide Program of Study

The Web Development program of study explores the occupations and educational opportunities associated with designing, creating, and modifying websites. This program of study may also explore integrating websites with other computer applications, and converting written, graphic, audio, and video components to compatible web formats by using software designed to facilitate the creation of web and multimedia content.

Uplift Education
Secondary Courses for High School Credit

Level 1
• Web Communications

Level 3
• Web Design

Level 4
• Project Based Research
• Independent Study in Technology Applications
• Independent Study in Evolving/Emerging Technologies

Uplift Education
Work-Based Learning and Expanded Learning Opportunities

Exploration Activities
• Join TSA
• Participate in a coding or computer programming club
• Create a web page

Work-Based Learning Activities
• Earn an Oracle or web certification

Postsecondary Opportunities

Associates Degrees
• Computer Programming/Programmer, General
• Computer Science
• Web Page, Digital/Multimedia and Information Resources Design
• Computer Systems Networking and Telecommunications

Bachelor’s Degrees
• Web/Multimedia Management and Webmaster
• Computer Science
• Web Page, Digital/Multimedia and Information Resources Design
• Computer Systems Networking and Telecommunications

Master’s, Doctoral, and Professional Degrees
• Computational Science
• Computer Science
• Information Science/Studies
• Computer Systems Networking and Telecommunications

Uplift Road to Career IT Partners
• Npower
• Merit America
• Year Up
• PerScholas

Aligned Occupations

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Median Wage</th>
<th>Annual Openings</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Developers</td>
<td>$67,912</td>
<td>1,079</td>
<td>39%</td>
</tr>
<tr>
<td>Web Administrators, Computer Occupations</td>
<td>$85,197</td>
<td>1,616</td>
<td>20%</td>
</tr>
<tr>
<td>Software Developers</td>
<td>$104,499</td>
<td>6,311</td>
<td>30%</td>
</tr>
</tbody>
</table>

*IBC sunsetting 8/31/24

Potential Industry-Based Certifications
• Certified Web and Mobile App Developer Apprentice
• Certified Web Animator Associate
• CodeHS Python Level 1 Certification
• CodeHS Web Design Level 1 Certification
• Information Technology Specialist: HTML and CSS
• Information Technology Specialist: HTML5 Application Development
• Information Technology Specialist: JavaScript
• Microsoft Azure Data Fundamentals
• Oracle Certified Associate Java SE 8 Programmer
• Web Design- Job Ready

• Google Analytics Individual Qualification*
• WD Certified Web Design*

Successful completion of the Web Development 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
## Level 1

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>SERVICE ID</th>
<th>PREREQUISITES</th>
<th>COREQUISITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Information Technology</td>
<td>13027200 (1 credit)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Web Communications</td>
<td>03580810 (.5 credit)</td>
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<td>None</td>
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## Level 2

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<th>COREQUISITES</th>
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<tbody>
<tr>
<td>Computer Science I</td>
<td>03580200 (1 credit)</td>
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<td>None</td>
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<tr>
<td>Foundations of User Experience (UX)</td>
<td>N1302809 (1 credit)</td>
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</table>

## Level 3

<table>
<thead>
<tr>
<th>COURSE NAME</th>
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<th>PREREQUISITES</th>
<th>COREQUISITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Design</td>
<td>03580820 (1 credit)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Web Game Development</td>
<td>03580830 (1 credit)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Advanced User Experience Design</td>
<td>N1302814 (1 credit)</td>
<td>None</td>
<td>None</td>
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</table>

## Level 4

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>SERVICE ID</th>
<th>PREREQUISITES</th>
<th>COREQUISITES</th>
</tr>
</thead>
</table>
| 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         |
| Project Based Research                     | 12701500 (1 credit) | None          | None         |
| Independent Study in Technology Applications| 03580900 (1 credit) | None          | None         |
| Independent Study in Evolving/Emerging Technologies | 03581500 (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

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Further nondiscrimination information can be found at Notification of Nondiscrimination in Career and Technical Education Programs.