

# Web Design Essentials v3



## Certification Exam: ICT Web Design Essentials Certificate Test

The ICT Web Design Essentials course covers the fundamentals of websites design. Students will learn to identify elements of a web page and will evaluate the aesthetics and functionality of websites. They will learn the steps in the web design process, such as determining website purpose, goals, and target audience, and planning the site content, structure, and navigation. They will also explore web authoring tools. They will be introduced to the technical aspects of the Internet and the World Wide Web. Students will build a website using a GUI web editor, and they will create web page that includes audio, video, and animation. Finally, students will prepare their websites for publishing. They will learn about web hosting services, domain names, uploading files, implementation issues (bandwidth, compression, streaming), and collaboration tools (wikis, blogs).

## Candidate Profile

The ICT Web Design Essentials v3 certification and courseware serve a wide range of learners seeking practical, industry-relevant skills, including:

### Middle School Students

- Grades 5- 8th middle school students.
- Familiar with computer operations (logging in, file management, keyboarding).
- Has an interest in creative digital activities such as designing graphics or presentations.

### High School Students

- Grades 9 – 12 or recent graduates with basic tech literacy.
- Have an interest in web development, digital design, multimedia creation, or online content development.
- Are preparing for workforce readiness or career and technical education (CTE) pathways.

### Adults

- Basic computer proficiency.
- Has an interest in building skills in website development, digital communication, and online content creation.
- Individuals who wish to transition to technology or web development careers.

## Career Profile

This course aligns with the Department of Labor Standard Occupational Classification for the following:

### SOC: 15-1250 Software and Web Developers, Programmers, and Testers

Software and Web Developers, Programmers, and Testers design, develop, test, and maintain software applications, websites, and digital systems that support modern technology and online services. These professionals use programming languages, development tools, and testing frameworks to create reliable and efficient software solutions that meet user and organizational needs.

### SOC: 15-1253 Software Quality Assurance Analysts and Testers

Develop and execute software tests to identify software problems and their causes. Test system modifications to prepare for implementation. Document software and application defects using a bug tracking system and report defects to software or web developers. Create and maintain databases of known defects. May participate in software design reviews to provide input on functional requirements, operational characteristics, product designs, and schedules.

### SOC: 15-1251 Computer Programmers

Computer Programmers write, modify, test, and maintain the code that allows computer software and applications to function properly. They translate software designs and system requirements into instructions that computers can understand using programming languages such as Java, Python, C++, C#, and JavaScript.

## Topics

### Lesson 1: Principles of Web Design

- Points to Ponder
- Website Domains
- Key Elements of Web Design
- Functional and Usable Design
- Multimedia and Interactivity

### Lesson 2: Exploring a Website Project

- Points to Ponder
- Website Development Process
- Templates

### Lesson 3: Coding a Website

- Points to Ponder
- The World Wide Web
- Introduction to HTML
- Elements of a Webpage
- Cascading Style Sheets (CSS)
- Multimedia and Interactivity
- Skills Section
  - Getting Started with a Code Editor
  - Getting Started with HTML
  - Getting Started with CSS
  - Getting Started with Multimedia

### Lesson 4: Publishing a Website

- Points to Ponder
- Preparing to Publish
- Security in Publishing