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## Web Design

## General Assessment Information

### Blueprint Contents

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**Test Type:** The Web Design industry-based credential is included in NOCTI's Job Ready assessment battery. Job Ready assessments measure technical skills at the occupational level and include items which gauge factual and theoretical knowledge. Job Ready assessments typically offer both a written and performance component and can be used at the secondary and post-secondary levels. Job Ready assessments can be delivered in an online or paper/pencil format.

**Revision Team:** The assessment content is based on input from secondary, post-secondary, and business/industry representatives from the state of Colorado, Georgia, South Carolina, and Texas.



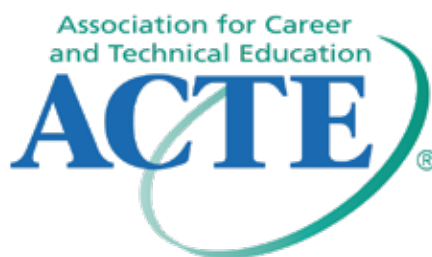
11.0801- Web Page, Digital/Multimedia  
and Information Resource Design



Career Cluster 11-  
Information Technology



15-1134.00- Web Developers



The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!



**NATIONAL COLLEGE CREDIT RECOMMENDATION SERVICE**  
University of the State of New York - Regents Research Fund

In the lower division  
baccalaureate/associate degree  
category, 3 semester hours in  
Web Design

## Written Assessment

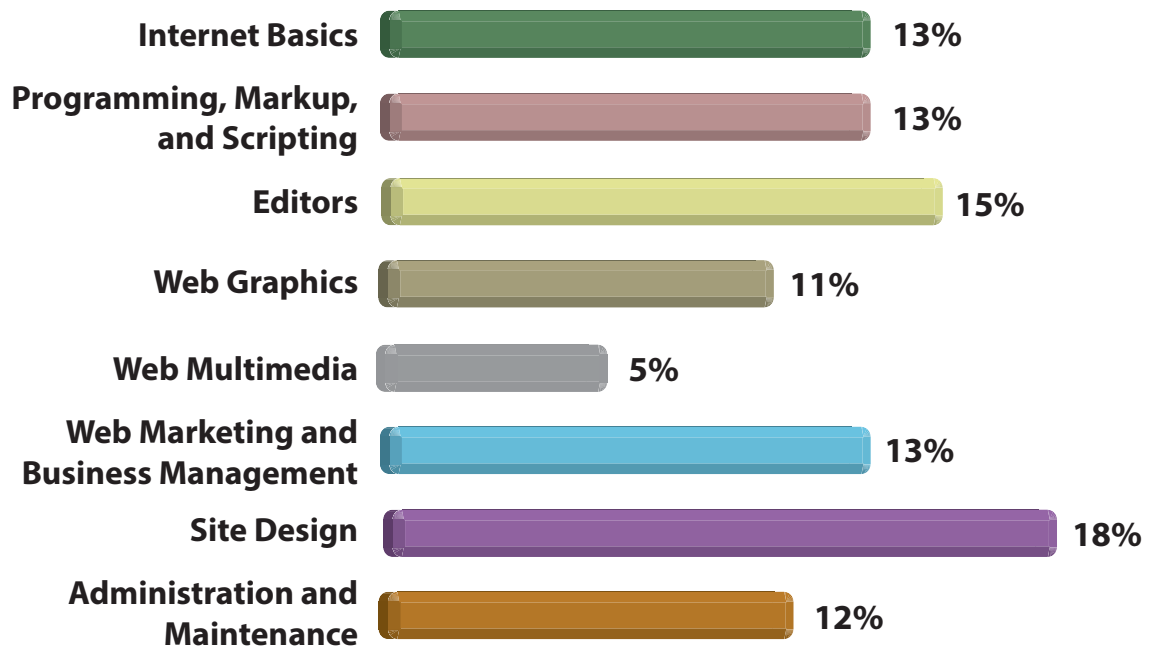
NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

**Administration Time:** 3 hours

**Number of Questions:** 171

**Number of Sessions:** This assessment may be administered in one, two, or three sessions.

### Areas Covered



## Specific Standards and Competencies Included in this Assessment

### Internet Basics

- Describe the process of information exchange between web server and client
- Describe the use of web browsers and various clients within a given context of use
- Explain ways to access the Internet
- Search for information on the Web
- Identify the tools required for web publishing
- Describe different types of web pages and their uses
- Describe the function and components of a URL; how it relates to protocols, addresses, and ports

### Programming, Markup, and Scripting

- Describe the difference between popular client-side and server-side programming languages
- Demonstrate the ability to create HTML5, HTTPS, XHTML, and XML pages
- Demonstrate the ability to use third-party programming interfaces
- Use CSS3 to differentiate between logic, content, and presentation
- Describe the difference between a scripting language and a markup language

### Editors

- Create a website
- Design and implement tables and templates
- Create and use interactive forms
- Enhance site elements by using style sheets
- Design and implement layers, image maps, and navigation bars
- Enhance a website with media objects and images

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## Specific Standards and Competencies (continued)

### Web Graphics

- Identify and use graphics file formats common to the Internet
- Differentiate between raster and vector images
- Use basic photo editing tools
- Prepare digital images for use on the Web

### Web Multimedia

- Add interactive media to a website through the use of rich Internet applications
- Export video output suitable for use on the Web
- Implement multimedia on the Web

### Web Marketing and Business Management

- Explain the issues involved in copyrighting, trademarking, and licensing
- Identify the issues related to working in a global environment
- Identify aspects of marketing related to social media
- Define web-related mechanisms for audience development; attracting/retaining an audience
- Define e-commerce terms and concepts



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## Specific Standards and Competencies (continued)

### Site Design

- Describe web design principles
- Describe the mechanics behind mobile websites and how they differ from non-mobile sites
- Describe design tenets associated with Web 2.0 (e.g., interactive information sharing, interoperability)
- Explain various project management techniques to set goals and perform needs assessment
- Describe the principles behind usable navigation
- Identify problems related to legacy clients
- Describe the mechanics behind dynamic websites and how they differ from static sites
- Incorporate data/objects held in a relational database into a web page
- Design for accessibility (e.g., ADA-Section 508 and Web Content Accessibility Guidelines)

### Administration and Maintenance

- Describe the process of pre-launch and post-launch functionality testing (e.g., quality assurance)
- Describe content management tools
- Identify hosting resources and domain management
- Utilize search engine optimization techniques
- Describe the concepts of server log analysis and benchmarks
- Back up data related to website



## Sample Questions

**The role of a web server is to**

- A. allow a client to preview the web pages as live view
- B. assemble a web page as a response to a client request
- C. manipulate data on a remote server
- D. execute programs on a remote server

**Which of the following facilitates interoperability among applications?**

- A. proprietary protocol
- B. application programming interface
- C. firewalls
- D. framing

**A skeleton of an HTML file is also known as a/an**

- A. template
- B. archive
- C. site map
- D. storyboard

**A geometric graphic is sometimes called a \_\_\_\_\_ graphic.**

- A. vector
- B. type
- C. bitmap
- D. pixel

**Copyright registration is administered by which government agency?**

- A. Internal Revenue Service
- B. Office of Compliance
- C. National Security Agency
- D. Library of Congress

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### Sample Questions (continued)

**Changing a website visitor to a paying customer is called**

- A. redirection
- B. conversion marketing
- C. behavioral targeting
- D. web metrics

**The primary driver of success of any website is**

- A. usability
- B. look and feel
- C. amount of content
- D. images

**A CMS is a collection of**

- A. tutorials used to teach HTML
- B. procedures used to manage the content of the website
- C. tools used to make the web design process easier
- D. applications that link a web page to a relational database

**A useful backup of a website should include**

- A. original HTML and CSS files
- B. images and media files
- C. dynamic data stored in databases
- D. all files related to the website

**A site that supports the design principles associated with Web 2.0 will typically**

- A. contain content in frames
- B. include animation
- C. consist of rich media
- D. allow for user interaction



## Performance Assessment

NOCTI performance assessments allow individuals to demonstrate their acquired skills by completing actual jobs using the tools, materials, machines, and equipment related to the technical area.

**Administration Time:** 3 hours

**Number of Jobs:** 5

### Areas Covered:

#### **20% Create a Cascading Style Sheet (CSS)**

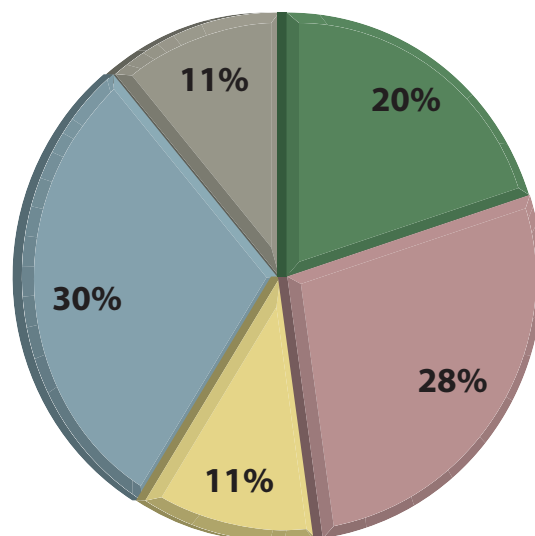
Participant will create a cat.css file and place it in the web folder, write a CSS rule for the body tag, heading 1 tag, heading 2 tag, block quote tag, table tag, and for the pseudo-class statement for the links.

#### **28% Create a Template**

Participant will create a template file and link the CSS file, place a table on the template page and assign the correct table properties, place a page heading on the page, place and center an image on the page, prepare a graphic navigation bar, enter placeholders, enter the text navigation bar, enter links for navigation bar, enter the copyright information, and enter the last updated information.

#### **11% Create a Home Page**

Participant will create an index.html file and link CSS and template files, place the page title and heading, place the text content, format the headings and paragraphs, complete text changes, links, and formatting, and place an image on the page with the appropriate properties.



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## Areas Covered (continued)

### **30% Create Content Pages**

Participant will create history.html, description.html, characteristic.html, temperament.html files, and link CSS template files, place the page title and heading, place the text content on the pages, and place and format the images on the pages according to instructions.

### **11% Create a Newsletter Page**

Participant will create newsletter.html file and link CSS and template files, place a title page and heading, place the form on the page and insert a line of instruction, place text fields on form and set form action, and validate all form fields.

## Sample Job

### Create a Cascading Style Sheet (CSS)

**Maximum Time:** 40 minutes

**Participant Activity:** The participant will have 20 minutes to review website design documents. In the remaining 20 minutes, the participant will create a CSS file, place it in the Web Design Documents folder and using the information from the website storyboard, write the CSS rules for: body, headings, block quote, table, and pseudo-class statement. Participant may return to file and make adjustments as needed.

