

Teacher Assessment Blueprint

Web Design



Test Code: 5934 / Version: 01

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## General Assessment Information

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**Test Type:** The Web Design assessment is included in NOCTI's Teacher assessment battery. Teacher assessments measure an individual's technical knowledge and skills in a proctored proficiency examination format. These assessments are used in a large number of states as part of the teacher licensing and/or certification process, assessing competency in all aspects of a particular industry. NOCTI Teacher tests typically offer both a written and performance component that must be administered at a NOCTI-approved Area Test Center. Teacher assessments can be delivered in an online or paper/pencil format.

**Revision Team:** The assessment content is based on input from subject matter experts representing the following states: Delaware, Georgia, Kentucky, Maryland, Michigan, Missouri, Mississippi, New York, Pennsylvania, and Texas.



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



Career Cluster 11-  
Information Technology



15-1134.00- Web  
Developers



**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

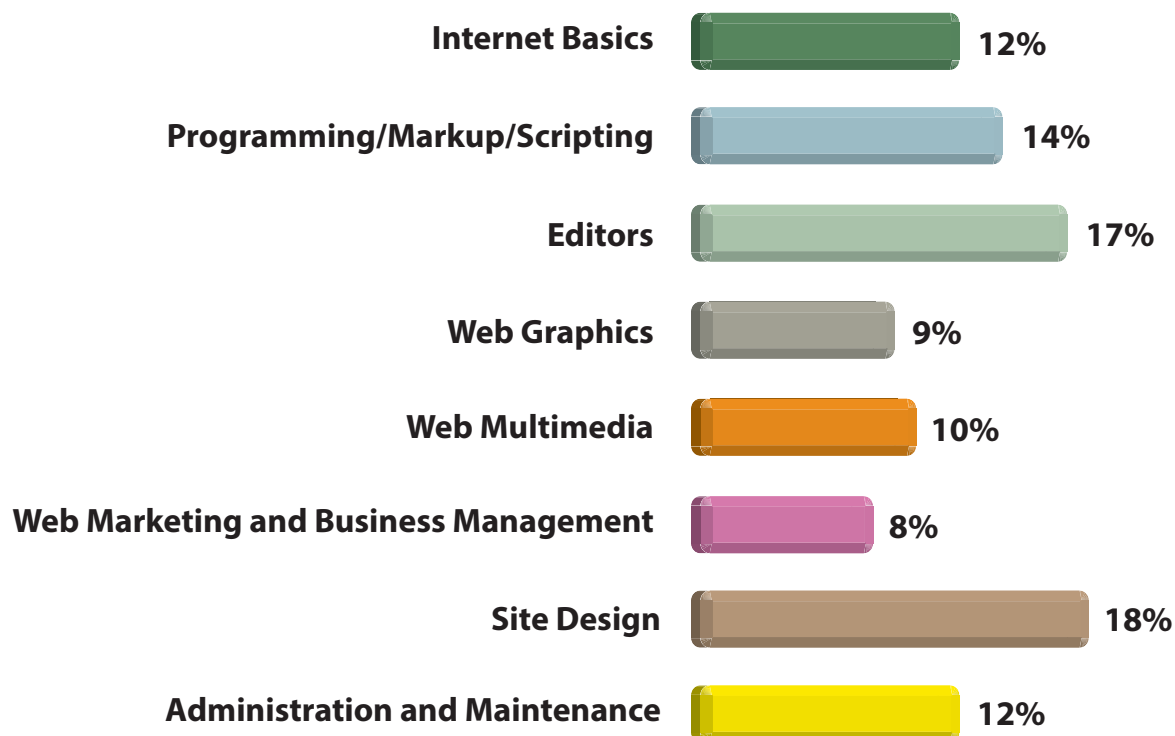
NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

**Administration Time:** 3 hours

**Number of Questions:** 155

**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 how information is physically moved across the Internet
- Describe the use of web browsers and various clients (e.g., email, FTP) within a given context of use
- Explain ways to access the Internet
- Search for information on the Web
- Describe different types of web pages and their uses
- Identify the tools required for web publishing
- Describe the function and components of a URL (how it relates to protocols, addresses, and ports)

### Programming/Markup/Scripting

- Describe the difference between popular client-side and server-side programming languages
- Demonstrate the ability to create HTML/XHTML/XML pages
- Explain the function performed by web and application servers in delivering web pages
- Use CSS 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 templates and 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
- Perform non-linear video editing
- 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
- Define web-related mechanisms for audience development (attracting and retaining an audience)
- Define e-commerce terms and concepts



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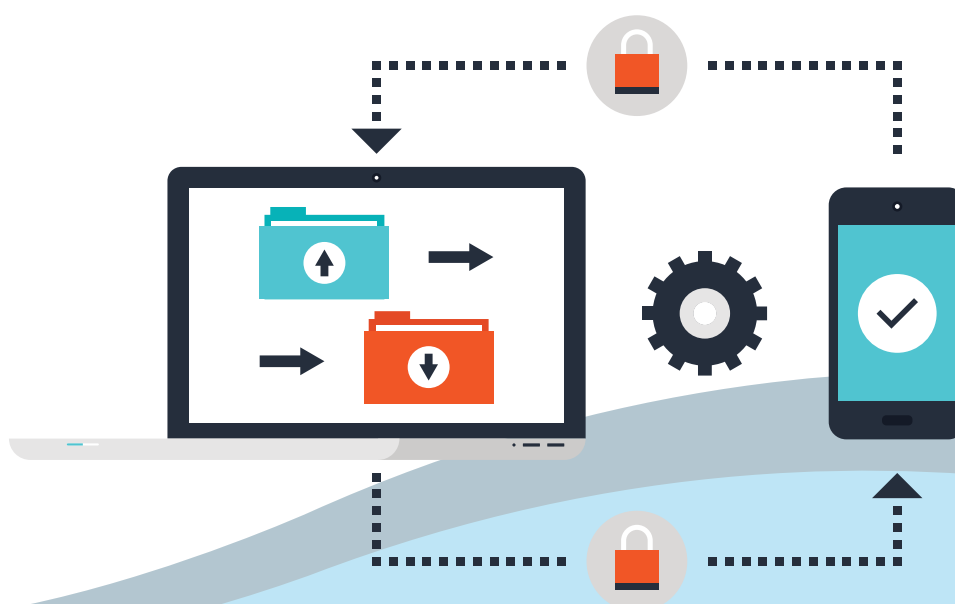
## Specific Standards and Competencies (continued)

### Site Design

- Describe software design principles
- 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, taking into consideration Section 508 of the Rehabilitation Act
- Describe components of various copyright and trademark laws

### Administration and Maintenance

- Describe the network hardware infrastructure needed to support a website
- Describe the process of pre-launch site/application functionality testing
- Describe content management tools
- Identify hosting resources and domain management
- Utilize search engine optimization techniques
- Describe the concepts of server log analysis and benchmarks



## Sample Questions

**What technology is used to specify different layouts for display and print?**

- A. JavaScript™
- B. CSS
- C. HTML
- D. XML

**Which of the following describes a function that associates an object with an event?**

- A. action scripts
- B. triggered scripts
- C. event handler
- D. user event

**What graphics are made up of pixels?**

- A. vector
- B. bitmapped
- C. exported
- D. imported

**Information technology magazines consistently report that a major concern for e-commerce sites is**

- A. traffic
- B. pop-up windows
- C. customer data security
- D. advertising

**A designer might consider using a database-driven website when**

- A. avoiding a CMS build
- B. the client wants a small static site
- C. the content for the site comes from a wide variety of sources
- D. managing a large amount of content

## 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:

#### 13% Create the Cascading Style Sheet (CSS)

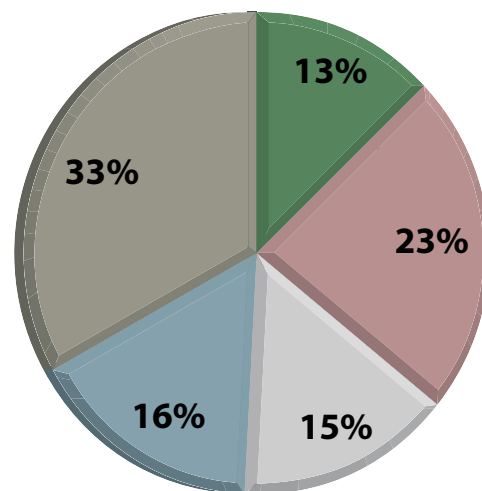
Create cat.css file, place it in web folder, write the CSS rule for body tag, write the CSS rule for heading 1 tag, write the CSS rule for heading 2 tag, write the CSS rule for blockquote tag, write the CSS rule for table tag, write the CSS pseudo-class statement for the links, and time to complete Job 1

#### 23% Create the Template

Create the template file and link the CSS file, place a table on the template page, assign the correct table properties, place the page heading on the page, place and center the image, prepare the graphic navigation bar, enter placeholders, enter the text navigation bar, enter the appropriate links for the text navigation bar, enter the copyright information, enter the last updated information, and time to complete Job 2

#### 15% Create the Home Page

Create index.htm file, link CSS and template files, place the page title and heading, place the text content on the page, format headings and paragraphs, complete text changes, links, and formatting, place image on page with the appropriate properties, and time to complete Job 3.



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## Areas Covered (continued)

### 16% Create the Form Page

Create form.htm file and link CSS and template files, place the page title and heading, place the image on the page, place the form on the page and insert line of instruction, place text fields on form and set form action, validate all form fields, and time to complete Job 4.

### 33% Create the Content Pages

Create history.htm file and link CSS template files, place the page title and heading, place the text content on page, place and format image on the page, create description.htm file and link CSS and template files, place the page title and heading, place the text content on the page, place and format the image on the page, create characteristics.htm file and link CSS and template files, place the page title and heading, place the text content on the page, place and format the image on the page, create temperament.htm file and attach CSS and template files, place the page title and heading, place the text content on page, place and format the image on the page, and time to complete Job 5.

## Sample Job

### Create the Cascading Style Sheet (CSS)

**Maximum Time:** 40 minutes

**Participant Activity:** The participant will create a CSS file named cat.css and place it in the Web Design Documents folder. Using the information from the website storyboard, participant will write the CSS rules for the following: body, headings, blockquote, table, and the pseudo-class statements for the links.

