# 2023 Web Design I

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The Research and Curriculum Unit (RCU), located in Starkville, as part of Mississippi State University (MSU), was established to foster educational enhancements and innovations. In keeping with the land-grant mission of MSU, the RCU is dedicated to improving the quality of life for Mississippians. The RCU enhances intellectual and professional development of Mississippi students and educators while applying knowledge and educational research to the lives of the people of the state. The RCU works within the contexts of curriculum development and revision, research, assessment, professional development, and industrial training.

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# Acknowledgments

# Standards

Some standards and alignment crosswalks are referenced in the appendix. Depending on the curriculum, these crosswalks should identify alignment to some of the standards mentioned below, as well as possible related academic topics as required in the Subject Area Testing Program in Algebra I, Biology I, English II, and U.S. History from 1877, which could be integrated into the content of the units. Mississippi's Web Design I curriculum is aligned to the following standards:

**National Standards for Business Education**
The National Business Education Association (NBEA) has created standards to introduce students to the basics of personal finance, the decision-making techniques needed to be wise consumers, the economic principles of an increasingly global marketplace, and the processes by which businesses operate. In addition, these standards provide a solid educational foundation for students who want to successfully complete college programs in various business disciplines. *NBEA Business Education Library* (2020).
nbea.org

**International Society for Technology in Education Standards (ISTE)**
Reprinted with permission from *ISTE Standards for Students* (2016). All rights reserved. Permission does not constitute an endorsement by ISTE.
iste.org

**College- and Career-Ready Standards**
College- and career-readiness standards emphasize critical thinking, teamwork, and problem-solving skills. Students will learn the skills and abilities demanded by the workforce of today and the future. Mississippi adopted Mississippi College- and Career-Readiness Standards (MCCRS) to provide a consistent, clear understanding of what students are expected to learn and so teachers and parents know what they need to do to help them.
mdek12.org/oae/college-and-career-readiness-standards

**Framework for 21st Century Learning**
In defining 21st-century learning, the Partnership for 21st Century Skills has embraced key themes and skill areas that represent the essential knowledge for the 21st century: global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; environmental literacy; learning and innovation skills; information, media, and technology skills; and life and career skills.
battelleforkids.org/networks/p21/frameworks-resources

# Executive Summary

**Pathway Description**
The Web Design I curriculum includes elements that will help contribute to student success in web design-related careers. Students will be introduced to the foundations of web design, website construction, basic HTML, and image formatting. Web Design I is a prerequisite for Web Design II.

**Applied Academic Credit**
The latest academic credit information can be found at
mdek12.org/ese/approved-course-for-the-secondary-schools.

**Teacher Licensure**
The latest teacher licensure information can be found at
mdek12.org/oel/apply-for-an-educator-license.

**Professional Learning**
If you have specific questions about the content of any of training sessions provided, please contact the RCU at 662.325.2510.

# Course Outlines

**One 1/2-Carnegie Unit Course**

This curriculum consists of one 1/2-credit course.

**Web Design I—Course Code: 110705**

| Unit | Title | Hours |
|:---:|:---|:---:|
| 1 | Foundations of Web Design | 5 |
| 2 | Website Construction | 20 |
| 3 | Basic HTML | 30 |
| 4 | Image Formatting | 15 |
| **Total** | | **70** |

# Unit 1: Foundations of Web Design

| Competencies and Suggested Objectives |
|---|
| 1. Discuss the necessity of websites in a global world. [DOK1] <br>     a. Discuss the importance of having a web page to reach mass consumers. <br>     b. Describe the difference between web development and web design. <br>     c. Discuss basic web development terminology (e.g., website, webpage, Hypertext Markup Language [HTML], tags, wireframes, source code, Uniform Resource Locator [URL], etc.). |
| 2. Explore legal and privacy issues related to website content and publication. [DOK2] |
| 3. Explore various methods and identify the challenges of developing websites. [DOK2] <br>     a. Explore various methods of developing websites. <br>     b. Identify the challenges of web development (e.g., coding errors, lacks usability, domain issues, etc.). <br>     c. Discuss how web developers meet the requirements of universal access and design. |
| 4. Discuss and demonstrate the skills needed for planning and creating an effective website. [DOK4] <br>     a. Identify website development components. <br>        • Audience <br>        • Purpose <br>        • Content <br>        • Competition <br>        • Management and maintenance <br>        • Future growth <br>     b. Plan and create a detailed storyboard using an established website structure. |
| 5. Research best practices for designing websites (e.g., site navigation, maintaining consistency, separating content from design, using standard fonts, etc.). [DOK4] |
| 6. Discuss the four types of website structures (e.g., linear, hierarchical, webbed, database). |

# Unit 2: Website Construction

| Competencies and Suggested Objectives |
|---|
| 1. Identify appropriate aspects of web design. [DOK1]<br>   a. Discuss the creation of content that is readable, accessible, searchable, etc.<br>   b. Assess website content in terms of policies, practices, and federal and state law. |
| 2. Identify and utilize various types of resources for web development. [DOK4]<br>   a. Compare and contrast features of web development applications and web content management systems. |
| 3. Organize and evaluate the elements of a webpage. [DOK4]<br>   a. Determine the layout of content on a webpage.<br>   b. Evaluate content for existing use (e.g., images, text, video, etc.). |
| 4. Identify and define errors throughout the design process. [DOK3] |

# Unit 3:  Basic HTML

| Competencies and Suggested Objectives |
|---|
| 1. Define HTML and research the role of HTML in web development. [DOK2] <br>    a. Identify and discuss HTML tags. <br>    b. Compare and contrast the different forms of HTML. <br>    c. Utilize proper HTML structure in creating a functional webpage. |
| 2. Incorporate a variety of HTML tags when creating a webpage (e.g., unordered list, ordered list, paragraph, strong, list, horizontal rule, etc.). [DOK4] |
| 3. Design and develop a home page using appropriate tools. [DOK4] |
| 4. Understand the purpose and steps for creating HTML tables in webpages. [DOK2] |
| 5. Discuss and demonstrate the use of links in basic website structures. [DOK4] |
| 6. Create, test, and evaluate a website incorporating basic HTML. [DOK4] |

# Unit 4: Image Formatting

| Competencies and Suggested Objectives |
|---|
| 1. Determine the appropriate size and use of images on a webpage. DOK2 <br>     a. Explore image size and resolution as it applies to web design. <br>     b. Use images that effectively enhance the content of your webpage. |
| 2. Apply the necessary principles to incorporate images on a webpage. DOK4 <br>     a. Identify correct file extensions for image use. <br>     b. Explore factors that affect image quality. <br>     c. Apply appropriate alternate text to images. |
| 3. Create a website using HTML structure and appropriate image selection and formatting. DOK4 |
| 4. Test, implement, and evaluate the website. DOK4 |

# Appendix: National Standards for Business Education

| National Standards for Business Education Crosswalk for Web Design I | | | | | |
|---|---|---|---|---|---|
| | **Units** | **1** | **2** | **3** | **4** |
| **Standards** | | | | | |
| IT.WDD.9.1 | | X | | | |
| IT.WDD.9.2 | | | X | | |
| IT.WDD.9.3 | | | X | | |
| IT.WDD.9.4 | | | | X | |
| IT.WDD.9.5 | | | X | X | X |
| IT.WDD.9.6 | | X | X | X | X |
| IT.WDD.9.7 | | X | X | X | X |
| IT.WDD.9.8 | | X | X | X | X |
| IT.WDD.9.9 | | X | X | X | X |
| IT.WDD.9.10 | | X | X | X | X |
| IT.WDD.9.11 | | | X | | |
| IT.WDD.9.12 | | | X | | |
| IT.WDD.9.13 | | | X | | |
| IT.WDD.9.14 | | | | | |
| IT.WDD.9.15 | | | | | |
| IT.WDD.9.16 | | | | | |
| IT.WDD.1.17 | | | | | X |
| IT.WDD.1.18 | | | | X | X |

## Information Technology

### IT. WDD.9 Web Development and Design

1. Identify and utilize various types of resources for web development.
2. Identify and apply appropriate design concepts.
3. Design and create web pages.
4. Design and create websites incorporating digital media.
5. Publish websites on local and cloud-based web development platforms.
6. Identify client and target audience needs.
7. Create content that is readable, accessible, searchable, and sticky.
8. Explain and use various internet protocols.
9. Research and apply accessibility guidelines and laws affecting website design.
10. Assess website content in terms of organizational policies, inclusive practices, and federal and state laws.
11. Research and analyze hosting and domain name solutions.

12. Compare and contrast the features of web development applications and web content management systems.
13. Use digital media optimized for website integration.
14. Install and configure web development applications and plug-ins.
15. Design, develop, and deliver advanced web content and applications using authoring tools.
16. Build dynamic web elements utilizing scripting, coding, and database integration.
17. Create a comprehensive website using industry design standards.
18. Test, implement, and evaluate the website.