Miami Dade College

Course Description

CTS1800 | Introduction to Web Page Development | 4.00 credits

This introductory course covers the basics of web design and development. Students will learn about the World Wide Web., Hypertext Markup language (HTML), Extensible Hypertext Markup Language (XHTML), Cascading Style Sheets (CSS) and JavaScript using popular web authoring tools such as Dreamweaver. Students will also learn the basic functions of HTML, XHTML, CSS and JavaScript and how to develop and maintain a website. Prerequisite: CGS1060.

Course Competencies:

Competency 1: The student will demonstrate a basic understanding of the Internet and web development by:
1. Describing the history, structure, function, organization, and development of the Internet and World Wide Web and their effect on society
2. Explaining the advantages of using different web browsers and web servers on intranets, extranets, and the Internet
3. Describing websites' format, structure, and design principles, including commercial and non-commercial sites
4. Using Internet tools and utilities such as e-mail, browsers, browser add-ons and plug-ins, search engines, news groups, list serves, chat rooms, RSS and other push technologies, file transfers, remote access, and other Internet protocol applications
5. Describing the ethical and legal issues related to Internet use, including intellectual property rights, fair use, privacy, and security
6. Explaining the purpose of HTML, XHTML, CSS, CGI JavaScript, and other development languages and tools when designing web pages
7. Identify the intended audience to access the website and describe the human-computer interaction (HCI) factors that impact design, including aesthetics, usability, and accessibility features
8. Determining user needs and client specifications
9. Evaluating and configuring software for web page authoring and website management

Competency 2: The student will demonstrate an understanding of basic file management techniques and site control by:
1. Describing the principles of a well-organized website, including the importance of a local root folder, the organization of folders and files, and the navigation of path structure
2. Using web authoring tools to create a file and folder structure for a website
3. Uploading and downloading files from the server

Competency 3: The student will demonstrate how to add and format text and images on a web page by:
1. Describing the principles of effective web page design
2. Describing the use of HTML, XHTML and CSS
3. Using authoring tools to format the appearance of text and images
4. Inserting, formatting, and aligning text on a web page
5. Inserting, formatting, modifying, and resizing images on a web page
6. Reviewing web page formatting and correcting errors

Competency 4: The student will demonstrate an understanding of site navigation by:
1. Describing the methods used to create navigation elements
2. Describing the characteristics and uses of different types of links
3. Creating links to files, folders, emails, websites, and other locations
4. Creating links to images and text
5. Reviewing the site map for broken links and correcting errors

Competency 5: The student will demonstrate an understanding of web page layout by:
1. Describing the principles of practical web page layout
2. Explaining how tags are used to organize the layout of a web page
3. Using web authoring tools for page layout
4. Working with percentage- and pixel-based tables
5. Creating and modifying tables and div tags and adding content
6. Applying a tracing image to help improve web page layout
7. Creating and modifying library items
8. Reviewing the page layout for effectiveness, usability, and aesthetic value

Competency 6: The student will demonstrate an understanding of templates by:
1. Describing the importance and use of templates for standardizing the appearance of a website
2. Using authoring tools to create and modify templates
3. Creating and modifying regions and other template elements
4. Applying templates to existing documents and web pages
5. Reviewing templates for effectiveness and protection of content

Competency 7: The student will demonstrate an understanding of cascading stylesheets (CSS) by:
1. Using web authoring tools for creating and editing CSS
2. Creating and modifying in-line, embedded, and external style sheets
3. Describing the importance and use of CSS for formatting web sites
4. Formatting a website using the CSS styles panel function

Competency 8: The student will demonstrate an understanding of dynamic webpage elements by:
1. Describing the importance and use of dynamic webpage elements
2. Describing the use and function of rollovers
3. Creating and modifying rollovers
4. Describing the use and function of behaviors
5. Creating and modifying behaviors
6. Adding sound and video elements to a web page
7. Describing the components of a CSS Rule and how to manipulate the components
8. Reviewing dynamic web page elements for functionality and effectiveness

Competency 9: The student will demonstrate an understanding of forms by:
1. Describing how forms are used in web page design
2. Creating and editing forms and form objects, including text fields, text areas, menu checkboxes, and radio buttons
3. Creating simple form validation
4. Submitting and clearing form results
5. Reviewing forms for functionality and effectiveness

Competency 10: The student will demonstrate how to maintain and administer a website by:
1. Describing the principles of a well-managed remote website
2. Connecting to a remote web server and using network applications to transfer files to and from the remote web server securely
3. Managing and maintaining a remote website
4. Performing website testing and analysis
5. Collecting statistical data from the remote server for reporting purposes

Updated; Fall 2025

Competency 11: The student will demonstrate an understanding of professionalism and workplace skills by:

1. Describing the roles of the web page developer in a business enterprise
2. Describing methods of understanding and managing a client's needs and expectations
3. Presenting and following oral and written instructions
4. Participating in group discussions as a web page developer
5. Demonstrating self-motivation and responsibility by completing assigned tasks on time
6. Choosing appropriate actions in situations requiring effective time management
7. Applying principles and techniques for being a productive, contributing member of a webpage development team
8. Identifying and discussing intellectual property rights and licensing issues
9. Identifying and discussing issues contained within professional codes of conduct
10. Using appropriate communication skills, courtesy, manners, and dress in the workplace
11. Reporting on emerging trends identified by reading professional journals, magazines, websites, and other continuing education materials

Learning Outcomes:

- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively