



ITS330: WEB DESIGN AND DEVELOPMENT

Credit Hours: 3

Contact Hours: This is a 3-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 8 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading material, interacting on the discussion boards, writing papers, completing projects, and doing research.

Faculty Information: Faculty contact information and office hours can be found on the faculty profile page.

COURSE DESCRIPTION AND OUTCOMES

COURSE DESCRIPTION:

This course offers an introduction to design principles, practices, processes, and technologies associated with Web design. Students will gain an understanding of HTML programming, cascading style sheets, and **JavaScript**. Students will explore the effects of web compliance and accessibility standards on web design.

COURSE OVERVIEW:

This course covers the history of the World Wide Web, HTTP, and current web trends, as well as an in-depth preparation for developing in the complementary development languages of HTML and CSS.

The material presented in this course is intended to provide foundational knowledge for students who are seeking a career in web development, as well as those who will be working in the field of Information Technology in any capacity.

COURSE LEARNING OUTCOMES:

1. Demonstrate the ability to create a website using HTML and cascading style sheets.
2. Examine accessibility as it relates to web design and technology.
3. Identify usability constraints as they relate to web design and technology.
4. Apply basic usability and user-centered design principles.

PARTICIPATION & ATTENDANCE

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.

Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

COURSE MATERIALS

Required:

Brandle, S., Denning, J., Geisler, J., Lysecky, R., & McCown, F. (2017). *Web Programming*. Retrieved from <https://www.zybooks.com/catalog/web-programming/>.

Important! Please note: There is no need for you to purchase this text, as the \$40 purchase price will be charged to your student account when you sign up for the course. It is not optional. Access to this ebook will be from a link in your Schoology course, it will be titled: ZyBook - Interactive eText. If you have questions, please consult your advisor.

Suggested:

NOTE: All non-textbook required readings and materials necessary to complete assignments, discussions, and/or supplemental or required exercises are provided within the course itself. Please read through each course module carefully.

COURSE SCHEDULE

Due Dates

The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- **Discussion Boards:** The original post must be completed by Thursday at 11:59 p.m. MT and peer responses posted by Sunday 11:59 p.m. MT. Late posts may not be awarded points.
- **Opening Exercises:** Take the Opening Exercise before reading each week's content to see which areas you will need to focus on. You may take these exercises as many times as you need. The Opening Exercises will not affect your final grade.
- **Mastery Exercises:** Students may access and retake Mastery Exercises through the last day of class until they achieve the scores they desire.
- **Critical Thinking:** Assignments are due Sunday at 11:59 p.m. MT.

WEEKLY READING AND ASSIGNMENT DETAILS

MODULE 1**Readings**

- Sections 1.1-1.4 in *Web Programming*
- Basques, K. & Kearney, M. (2018, January 11). Measure resource loading times. Retrieved from https://developers.google.com/web/tools/chrome-devtools/network-performance/resource-loading?utm_source=dcc&utm_medium=redirect&utm_campaign=2016q3#network-panel-overview
- Catchpoint Systems. (2017, September 17). Anatomy of an HTTP transaction. Retrieved from <http://blog.catchpoint.com/2010/09/17/anatomyhttp/>
- Chui, M.; Loffler, M.; & Roberts, R. (2010, March). The internet of things. *McKinsey Quarterly*. Retrieved from <https://www.mckinsey.com/industries/high-tech/our-insights/the-internet-of-things>
- den Exter, K., Rowe, S., Boyd, W., & Lloyd, D. (2012). Using web 2.0 technologies for collaborative learning in distance education: Case studies from an Australian university. *Future Internet*, 4(1), 216-237. doi:10.3390/fi4010216
- Hoang, X. D. & Pham, H. K. (2016). A review of hot IP finding methods and its application in early DDOS target detection. *Future Internet*, 8(4), 52; Doi: 10.3390/fi8040052
- W3C Web Accessibility Initiative (WAI). (2018, February 9). Getting started with web accessibility. Retrieved from <https://www.w3.org/WAI/gettingstarted/Overview.html>

- WebAIM. (2013, August 26). United States laws: Overview of the individuals with disabilities education act (IDEA), 1997. Retrieved from <https://webaim.org/articles/laws/usa/idea>

Discussion (25 points)

Critical Thinking (60 points)

Option #1: Accessibility in Web Content

In a one-page document, explain the importance of accessibility as it pertains to web content. Please use proper citations in your work with at least three sources in APA format.

Option #2: Web Accessibility

Create an 8- to 10-slide PowerPoint presentation in which you explain the importance of accessibility as it pertains to web content. Please use proper citations in your work with at least three sources in APA format.

Mastery Exercise (10 points)

MODULE 2

Readings

- Sections 1.5-1.6 in *Web Programming*
- Kahn Academy. (n.d.). CSS basics. Retrieved from <https://www.khanacademy.org/computing/computer-programming/html-css/intro-to-css/p/css-basics>
- Kahn Academy. (n.d.). CSS basics. Retrieved from <https://www.khanacademy.org/computing/computer-programming/html-css/intro-to-html/p/html-basics>

Discussion (25 points)

Critical Thinking (60 points)

Option #1: Introduction Web Page

In this Critical Thinking Assignment, you will create a high-level introductory webpage that gives an overview of your background. You will want to include: name, place of birth, birthday, and a few things about your background. Create the appropriate HTML file using a text editor (e.g., Notepad) that includes the following components:

- Title
- Header
- Paragraph

Name your file as index.html. Please be sure to submit your .html file as a text document for grading.

Option #2: Historical Figure Web Page

In this Critical Thinking Assignment, you will create a high-level webpage that discusses a historical figure. You will want to include: name, place of birth, birthday, and the importance of this historical figure. Create the appropriate HTML file using a text editor (e.g., Notepad) that includes the following components:

- Title
- Header
- Paragraph

Name your file as index.html. Please be sure to submit your .html file as a text document for grading.

Mastery Exercise (10 points)

MODULE 3

Readings

- Sections 21.-2.8 in *Web Programming*

- Quirks mode and standards mode. (n.d.). Retrieved from https://developer.mozilla.org/en-US/docs/Web/HTML/Quirks_Mode_and_Standards_Mode
- [Table of all known HTML entities]. (n. d.). Retrieved from <https://dev.w3.org/html5/html-author/charref>
- W3Schools. (n.d.). HTML images. Retrieved from https://www.w3schools.com/html/html_images.asp
- W3Schools. (n.d.). HTML links. Retrieved from https://www.w3schools.com/html/html_links.asp
- W3Schools. (n.d.). HTML lists. Retrieved from https://www.w3schools.com/html/html_lists.asp
- W3Schools. (n.d.). HTML tables. Retrieved from https://www.w3schools.com/html/html_tables.asp
- W3Schools. (n.d.). HTML text formatting. Retrieved from https://www.w3schools.com/html/html_formatting.asp
- W3Schools. (n.d.). HTML5 tutorial. Retrieved from <https://www.w3schools.com/html/default.asp>

Discussion (25 points)

Critical Thinking (60 points)

Option #1: Lists, Tables, and Images

Using your submission from Module 2 Critical Thinking Assignment, create an HTML file using a text editor (e.g., Notepad) that includes multiple HEADER tags, text effects tags (e.g., MARK, SUP), and at least one comment. You will also want to include a table in your updated webpage.

Your HTML file should also include one ordered list and one unordered list.

Name your file as module3.html. Please be sure to submit your .html file as a text document for grading.

Option #2: HTML Revisions

Using your submission from Module 2 Critical Thinking Assignment, create an HTML file using a text editor (e.g., Notepad) that includes multiple HEADER tags, text effects tags (e.g., MARK, SUP), and at least one comment. You will also want to include a table in your updated webpage.

Your HTML file should also include one ordered list and one unordered list.

Name your file as module3.html. Please be sure to submit your .html file as a text document for grading.

Mastery Exercise (10 points)

Portfolio Milestone (50 points)

Option #1: 5-Page Web Site Design

For the Week 3 milestone, you are to submit an outline of the website that you will be creating. Be sure to identify the appropriate pages and content that you would like to include on your final project.

Submit a high-level outline of what each webpage for your final project will discuss as a word document.

Option #2: 5-Page Travel Recommendation Web Site Design

For the Week 3 milestone, you are to submit an outline of the website that you will be creating. Be sure to identify the appropriate pages and content that you would like to include on your final project. List the travel destinations that you will highlight for your webpage.

Submit a high-level outline of what each webpage for your final project will discuss as a word document.

MODULE 4

Readings

- Sections 3.1-3.4 in *Web Programming*

- [Check browser feature support]. (2018, January). Retrieved from <https://caniuse.com/>
- Sending form data. (n.d.). Retrieved from https://developer.mozilla.org/en-US/docs/Learn/HTML/Forms/Sending_and_retrieving_form_data
- W3Schools. (n.d.). HTML <button> tag. Retrieved from https://www.w3schools.com/tags/tag_button.asp.
- W3Schools. (n.d.). HTML/Elements/inputs/date (2015, June 24). Retrieved from <https://www.w3.org/wiki/HTML/Elements/input/date>
- W3Schools. (n.d.). HTML <form> enctype attribute. (2018). Retrieved from https://www.w3schools.com/tags/att_form_enctype.asp
- W3Schools. (n.d.). HTML <input> tag. Retrieved from https://www.w3schools.com/tags/tag_input.asp
- W3Schools. (n.d.). HTML <select> tag. Retrieved from https://www.w3schools.com/tags/tag_select.asp

Discussion (25 points)

Critical Thinking (60 points)

Option #1: Dream Car Web Page Form

For this Critical Thinking assignment, you will create a webpage containing a form that provides users the ability to enter information. Your webpage should contain the following:

<INPUT> tag: *type, name, id, placeholder, and value.*

The web page will have input fields for the following information:

- First Name
- Last Name
- Date
- Address
- Favorite Car (text area)

Your webpage should be designed in a logical manner and be well organized.

Please be sure to submit your .html file as a text document for grading. Also, submit a word document containing a screenshot that shows the set-up of your webpage.

Option #2: Favorite Restaurant Web Page Form

For this Critical Thinking assignment, you will create a webpage containing a form that provides users the ability to enter information about their favorite restaurant. Your webpage should contain the following:

<INPUT> tag: *type, name, id, placeholder, and value.*

The web page will have input fields for the following information:

- First Name
- Last Name
- Date of Attendance
- Restaurant Address
- Favorite Restaurant (text area)

Your webpage should be designed in a logical manner and be well organized.

Please be sure to submit your .html file as a text document for grading. Also, submit a word document containing a screenshot that shows the set-up of your webpage.

Mastery Exercise (10 points)

MODULE 5

Readings

- Sections 3.5-3.7 in *Web Programming*

- Google HTML/CSS style guide (n. d.). Retrieved from <https://google.github.io/styleguide/htmlcssguide.html>
- HTMLMediaElement (2018, April 13). Retrieved from <https://developer.mozilla.org/en-US/docs/Web/API/HTMLMediaElement>
- Media formats supported by the HTML audio and video elements (2018, April 9). Retrieved from https://developer.mozilla.org/en-US/docs/Web/HTML/Supported_media_formats
- W3Schools. (n.d.). HTML plug-ins. Retrieved from https://www.w3schools.com/html/html_object.asp
- W3Schools. (n.d.). HTML5 audio. Retrieved from https://www.w3schools.com/html/html5_audio.asp
- W3Schools. (n.d.). HTML5 Video. Retrieved from https://www.w3schools.com/html/html5_video.asp

Discussion (25 points)

Critical Thinking (60 points)

Option #1: Plug-Ins

Create an HTML file using a text editor (e.g., Notepad) in which a video file plays automatically and loops. Your submission should include the following additional components:

- Title
- Header
- Paragraph
 - Provide a short explanation of the purpose of the video file being played

Please be sure to submit all required documents in a zip file.

Option #2: Audio and Video

Create an HTML file using a text editor (e.g., Notepad) in which an audio file plays automatically and loops. Your submission should include the following additional components:

- Title
- Header
- Paragraph
 - Provide a short explanation of the purpose of the audio file being played

Please be sure to submit all required documents in a zip file.

Mastery Exercise (10 points)

MODULE 6

Readings

- Sections 4.1-4.5 in *Web Programming*
- W3Schools. (n.d.). Calculating widths and margins. Retrieved from https://www.w3.org/TR/CSS2/visudet.html#Computing_widths_and_margins
- W3Schools. (n.d.). Collapsing margins. Retrieved from <https://www.w3.org/TR/CSS2/box.html#collapsing-margins>
- W3Schools. (n.d.). Color HSL. Retrieved from https://www.w3schools.com/colors/colors_hsl.asp
- W3Schools. (n.d.). CSS attribute selectors. Retrieved from https://www.w3schools.com/css/css_attribute_selectors.asp
- W3Schools. (n.d.). CSS background property. Retrieved from https://www.w3schools.com/cssref/css3_pr_background.asp
- W3Schools. (n.d.). CSS display property. Retrieved from https://www.w3schools.com/cssref/pr_class_display.asp
- W3Schools. (n.d.). CSS legal color values. Retrieved from https://www.w3schools.com/cssref/css_colors_legal.asp

- W3Schools. (n.d.). CSS pseudo-classes. Retrieved from https://www.w3schools.com/css/css_pseudo_classes.asp
- W3Schools. (n.d.). CSS selectors reference. Retrieved from https://www.w3schools.com/cssref/css_selectors.asp
- W3Schools. (n.d.). HTML color names. Retrieved from https://www.w3schools.com/colors/colors_names.asp
- W3Schools. (2018, February 17). Simple selectors. Retrieved from <https://www.w3.org/community/webed/wiki/CSS/Selectors>
- W3Schools. (n.d.). 8 box model. Retrieved from <https://www.w3.org/TR/CSS2/box.html>

Discussion (25 points)

Critical Thinking (70 points)

Option #1: Box Formatting

Using your submission from Module 3, you will incorporate the use of a cascading style sheets. Create an HTML file using a text editor (e.g., Notepad) in which CSS is added. Ensure that your .css file incorporates the following elements:

- Declare font size and line height
- Implement bold and italics
- Specification of hex and RGB colors
- Background color specifications.

Submit your .html and .css files in a zip folder. Also include a screenshot as a word document that shows your complete page with stylings applied.

Option #2: CSS Backgrounds and Display

Using your Option 2 submission from module 3, you will incorporate the use of a cascading style sheets. Create an HTML file using a text editor (e.g., Notepad) in which CSS is added. Ensure that your submission incorporates the following elements:

- Declare font size and line height
- Implement bold and italics
- Specification of hex and RGB colors
- Background color specifications.

Your submission should make use of inline styles.

Submit your .html and .css files in a zip folder. Also include a screenshot as a word document that shows your complete page with stylings applied.

Mastery Exercise (10 points)

MODULE 7

Readings

- Sections 5.1-5.3 in *Web Programming*
- W3Schools. (n.d.). CSS animations. Retrieved from https://www.w3schools.com/css/css3_animations.asp
- W3Schools. (n.d.). CSS border-image property. Retrieved from https://www.w3schools.com/cssref/css3_pr_border-image.asp
- W3Schools. (n.d.). CSS gradients. Retrieved from https://www.w3schools.com/css/css3_gradients.asp
- W3Schools. (n.d.). CSS layout - The position property. Retrieved from https://www.w3schools.com/css/css_positioning.asp
- W3Schools. (n.d.). CSS rounded corners. Retrieved from https://www.w3schools.com/css/css3_borders.asp

- W3Schools. (n.d.). CSS shadow effects. Retrieved from https://www.w3schools.com/css/css3_shadows.asp
- W3Schools. (n.d.). CSS text-shadow property. Retrieved from https://www.w3schools.com/cssref/css3_pr_text-shadow.asp
- W3Schools. (n.d.). CSS transitions. Retrieved from https://www.w3schools.com/css/css3_transitions.asp
- W3Schools. (n.d.). CSS 2D transforms. Retrieved from https://www.w3schools.com/css/css3_2dtransforms.asp
- W3Schools. (n.d.). CSS 3D transforms. Retrieved from https://www.w3schools.com/css/css3_3dtransforms.asp

Discussion (25 points)

Mastery Exercise (10 points)

MODULE 8

Readings

- Sections 5.4-5.6 in *Web Programming*
- Mifsud, J. (2011, November 8). An extensive guide to web form usability. Retrieved from <https://www.smashingmagazine.com/2011/11/extensive-guide-web-form-usability/>
- Pickering, H. (2014, October 15). Replacing radio buttons without replacing radio buttons. Retrieved from <https://www.sitepoint.com/replacing-radio-buttons-without-replacing-radio-buttons/>
- Sherwin, K. (2014, May 11). Placeholders in form fields are harmful. Retrieved from <https://www.nngroup.com/articles/form-design-placeholders/>
- W3Schools. (n.d.). CSS flexbox. Retrieved from https://www.w3schools.com/css/css3_flexbox.asp
- W3Schools. (n.d.). CSS forms. Retrieved from https://www.w3schools.com/css/css_form.asp
- W3Schools. (n.d.). CSS multi-column layout. Retrieved from https://www.w3schools.com/css/css3_multiple_columns.asp
- W3Schools. (n.d.). CSS navigation bar. Retrieved from https://www.w3schools.com/css/css_navbar.asp
- W3Schools. (n.d.). HTML layouts. Retrieved from https://www.w3schools.com/html/html_layout.asp

Discussion (25 points)

Mastery Exercise (10 points)

Portfolio Project (300 points)

Option #1: 5-Page Web Site Design

For your final project, you will create a five-page website that focuses on various aspects about your personal and professional life. For this assignment, you will be graded based on the following requirements:

1. Layout of website: Ensure consistency of images, text, and organization.
2. Text: Your website should contain detailed text that illustrates an engaging color scheme. Appropriate titles should also be utilized.
3. Navigation: Ensure that each page can be accessed from another page. There should be a clear navigation pane that is visible on each webpage.
4. Images: Each webpage should contain at least two images related to the content of the website.

Web Page Ideas

You want to keep in mind that each page in your website should contain appropriate information about you. The following can represent some ideas to consider for the different webpages:

- Introduction/Biographical Page
- Favorite Television Shows
- Friends/Family Page
- Favorite Music
- Career Goals/Resume
- Hobbies/Interest
- Future Plans

Submission Guidelines:

Submit a .zip file containing your website. Use the following naming convention:

ITS330_FinalProject_LastName.zip

All five pages should be contained within the zip file. Your main page should be named index.html.

Option #2: 5-Page Travel Destinations Web Site Design

For your final project, you will create a five-page website that focuses on various countries and/or cities that a traveler should visit. For this assignment, you will be graded based on the following requirements:

1. Layout of website: Ensure consistency of images, text, and organization.
2. Text: Your website should contain detailed text that illustrates an engaging color scheme. Appropriate titles should also be utilized.
3. Navigation: Ensure that each page can be accessed from another page. There should be a clear navigation pane that is visible on each webpage.
4. Images: Each webpage should contain at least two images related to the content of the website.

Web Page Guidelines

You want to keep in mind that each page in your website should contain appropriate information related to at least four different travel destinations. Your introductory (index.html) site should give an overview of the purpose of the website. The introductory webpage should then provide links to the appropriate webpages contained in the website.

Submission Guidelines:

Submit a .zip file containing your website. Use the following naming convention:

ITS330_FinalProject_LastName.zip

All five pages should be contained within the zip file. Your main page should be named index.html.

COURSE POLICIES

Course Grading

20% Discussion Participation
0% Opening Exercises
8% Mastery Exercises
37% Critical Thinking Assignments
35% Final Portfolio Project

Grading Scale	
A	95.0 – 100
A-	90.0 – 94.9
B+	86.7 – 89.9
B	83.3 – 86.6
B-	80.0 – 83.2
C+	75.0 – 79.9
C	70.0 – 74.9
D	60.0 – 69.9
F	59.9 or below

IN-CLASSROOM POLICIES

For information on late work and incomplete grade policies, please refer to our [In-Classroom Student Policies and Guidelines](#) or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

Academic Integrity

Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /repurposing your own work (see *CSU-Global Guide to Writing and APA Requirements* for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information on how students can avoid plagiarism by understanding what it is and how to use the Library and Internet resources.

Citing Sources with APA Style

All students are expected to follow the *CSU-Global Guide to Writing and APA Requirements* when citing in APA (based on the APA Style Manual, 6th edition) for all assignments. For details on CSU-Global APA style, please review the APA resources within the CSU-Global Library under the “APA Guide & Resources” link. A link to this document should also be provided within most assignment descriptions in your course.

Disability Services Statement

CSU-Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email ada@CSUGlobal.edu for additional information to coordinate reasonable accommodations for students with documented disabilities.

Netiquette

Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults, or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom. If you have concerns about something that has been said, please let your instructor know.