



Course Title: **Web Design**

Description: This semester course introduces basic web design techniques. Topics include customer expectations, HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ basic design techniques to creatively present information on the internet.

Standards have been adopted from the Iowa CTE Standards in Information Technology, standards 2, 4, 5, and 7.

| <u>Reporting Topic</u> | <u>Course Level Standards</u> | <u>Competency Statement</u> |
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| HTML | <ul style="list-style-type: none">• Students will demonstrate an understanding of the planning, development, and implementation of web sites.• Demonstrate knowledge of how to intercept, capture and change HTML pages.IT 5.5.4• Use basic Web development skills.IT 7-8.3• Demonstrate that website meets the validation process and is compatible across multiple browsers and devices.IT 7-8.3.4• Employ basic web programming knowledge.IT 7-8.5 | When using HTML5, Students can program a functional website. |
| CSS | <ul style="list-style-type: none">• Students will demonstrate knowledge of languages, markup tags, and good coding practices commonly used to create web pages.• Demonstrate the relationship between different numbering systems (binary, decimal, hex).IT 2.4.1• Use basic Web development skills.IT 7-8.3• Demonstrate that website meets the validation process and is compatible across multiple browsers and devices.IT 7-8.3.4• Employ basic web programming knowledge.IT 7-8.5 | When using CSS3, Students can properly stylize HTML5 aspects to create a functional website. |



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| <p>Visual Elements and Graphics</p> | <ul style="list-style-type: none"> ● Using proper elements of HTML5/CSS3, Students will implement HTML5/CSS3 graphic elements. ● Use basic Web development skills.IT 7-8.3 ● Demonstrate that website meets the validation process and is compatible across multiple browsers and devices.IT 7-8.3.4 ● Employ basic web programming knowledge.IT 7-8.5 ● Apply effective use of negative space, composition, message structure, graphics, etc. to graphic works.IT 8-2.6.1 ● Explain the beneficial and harmful effects that intellectual property laws can have on innovation. 3A-IC-28 | <p>Students will identify and demonstrate (using HTML5/CSS3) appropriate use of graphical elements for web pages.</p> |
| <p>Advanced HTML and CSS</p> | <ul style="list-style-type: none"> ● Students will demonstrate knowledge of web page layout fundamentals. ● Use basic Web development skills.IT 7-8.3 ● Demonstrate that website meets the validation process and is compatible across multiple browsers and devices.IT 7-8.3.4 ● Employ basic web programming knowledge.IT 7-8.5 | <p>Students will demonstrate knowledge of web page layout fundamentals while properly manipulating HTML5/CSS3 elements.</p> |
| <p>Web Design</p> | <ul style="list-style-type: none"> ● Use logic to solve problems and demonstrate trouble-shooting skills. IT 2.2 (3A-CS-03) ● Develop a plan to troubleshoot an identified technical issue.IT 2.2.1 (3A-CS-03) ● Demonstrate initiative to independently solve problems and trouble-shoot.IT 2.2.2 ● Understand the resources available to troubleshoot an issue.IT 2.2.3 ● Demonstrate the ability to use the internet to research and find answers to technical issues.IT 2.5.1 ● Demonstrate the ability to prioritize tasks.IT 3.1.4 | <p>Students will be able to Employ basic web programming knowledge</p> |



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| | <ul style="list-style-type: none">● Demonstrate a basic understanding of Domain Name System(DNS).IT 4.9.2● Web and Digital Communications/Web Design Pathway - Cluster Knowledge and Skill Statement: Design and employ the use of graphics to create a visual Web/digital design.IT 7-3● Apply color theory to select appropriate colors.IT 7-3.2.2● Create and/or implement the look and feel of the product.IT 7-3.2.3● Evaluate visual appeal.IT 7-3.2.7● Use basic Web development skills.IT 7-8.3● Demonstrate that website meets the validation process and is compatible across multiple browsers and devices.IT 7-8.3.4● Employ basic web programming knowledge.IT 7-8.5● Demonstrate knowledge of website testing.IT 7-8.5.3● Demonstrate knowledge of the uses and advantages/disadvantages of various scripting Languages.IT 7-8.5.4● Evaluate problem-solving processes and outcomes.IT 7-9.2.5● Incorporate appropriate color modes in graphic works including but not limited to RGB and CMYK.IT 8-3.3.2● Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests. (3A-AP-13)● Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue by using events to initiate instructions.(3A-AP-16)● Systematically design and develop programs for broad audiences by incorporating feedback from users. (3A-AP-19) | |
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| | <ul style="list-style-type: none">• Evaluate and refine computational artifacts to make them more usable and accessible. (3A-AP-21)• Design and develop computational artifacts working in team roles using collaborative tools (3A-AP-22)• Document design decisions using text, graphics, presentations, and/or demonstrations in the development of complex programs.(3A-AP-23) | |
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