COURSE DESCRIPTION

This is an introductory level web development course that focuses primarily on learning and using HTML5 (Hypertext Markup Language, version 5) and CSS3 (Cascading Style Sheets, version 3). These are fundamental languages of the web, and you will be empowered, professionally, to know them. In addition to covering the syntax and structure of HTML and CSS, we will address how the web works and considerations for accessibility, usability, and visual design. We will also dabble in more advanced topics, like adding interactivity to web pages using JavaScript, forms, and advanced HTML5/CSS3 elements. After successfully completing this class, you will know how to code and style web pages using the basics of the HTML5 and CSS3 standards, in accordance with sound design and accessibility principles.



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COURSE OBJECTIVES

At the end of the semester, you will be asked to evaluate this class on the IDEA online evaluation system. It will ask you to rate the class on its achievement of about 13 objectives. Only five of them are deemed "important" for this class, and those 5 objectives are what the course will be evaluated on. These are the five IDEA objectives that this course aims to accomplish:

1. Gaining factual knowledge (terminology, classifications, methods, trends)

- 2. Learning fundamental principles, generalizations, or theories
- 3. Learning to apply course materials (to improve rational thinking, problem solving and decisions)
- 4. Developing specific skills, competencies and points of view needed by professionals in the field most closely related to this course
- 5. Learning how to find and use resources for answering questions or solving problems.

Please be sure to complete your evaluations at the end of the semester and let me know how this course did at achieving its IDEA objective goals.

I also have some specific objectives that are related to the five above but that are a bit more descriptive and performance oriented. They provide an overview of the things you should be able to do when you are done with this course:

- 1. Show proficiency, through coding, in the syntax of HTML5 and CSS3 in a manner that passes a W3C validation check. (Correlates to IDEA objectives 1, 2, and 4)
- 2. Demonstrate the ability to set up and maintain a website, including the following:
 - i. Organize files into folders and subfolders, with a single index file at the site root representing the home page.
 - ii. Connect to a remote server.
 - iii. Transfer a website from the local computer to a hosted environment.
 - iv. Make further edits to a site by retrieving files and pushing revisions to and from a hosted environment and the local environment.
 - v. Link to files using relative and absolute linking.
- vi. Troubleshoot linking problems by identifying file dependencies. (Correlates to IDEA objective 3)
- 3. Demonstrate adherence to basic usability principles, including the appropriate use of fonts and colors, layout elements, white space, and visual consistency. (Correlates to IDEA objectives 2 and 4)
- 4. Configure basic, web-ready graphics. (Correlates to IDEA objective 4)
- 5. Demonstrate the ability to create responsive layouts that display well on mobile browsers, in print, and across multiple desktop browsers. (Correlates to IDEA objectives 2 and 4)
- 6. Identify the four content accessibility principles of the WCAG 2.0 standard and design websites that follow these standards. (Correlates to IDEA objectives 1 and 2)
- 7. Demonstrate an ability to create HTML forms and invoke server-side processing through form submission. (Correlates to IDEA objective 4)
- 8. Identify ways to add interactivity and visual appeal to a website through JavaScript libraries and advanced HTML5 capabilities. (Correlates to IDEA objectives 1, 3, and 4)
- 9. Demonstrate the ability to publish a website to the Internet by identifying how to register a domain name, choose a domain host, optimize for search engines, and work within a service provider's hosting administrative environment. (Correlates to IDEA objective 4)

- 10. Demonstrate the ability to use web development tools such as the Web Developer Toolbar or Firebug to view source code, identify the structure and style of a document, and test and troubleshoot changes. (Correlates to IDEA objective 5)
- 11. Demonstrate the ability to find answers, information, and tutorials on web development topics online. (Correlates to IDEA objective 5)

WHAT SHOULD YOU ALREADY KNOW?

Starting out, you should already be comfortable working with a computer. Things you will be asked to do without much direction include installing software (FTP programs, browser plugins, code editor), folder creation and management, uploading and moving files, and searching and browsing the web. If you don't feel comfortable doing these things without direction and help, you are probably not ready for this class. However, if you are comfortable with these things, you should be off to a good start. You don't need to have prior experience with web development or HTML or CSS.

Other tasks you will be asked to perform will include basic graphics manipulation, such as resizing images, saving them as different formats, saving images on transparent backgrounds, and possibly building vector images (depending on your project). I will give some direction on how to do this in free software. I'll operate under the assumption that if you have another graphics editor that you have purchased, you probably know how to use it enough to do what you need to do for this class.

If you have any questions or concerns about your readiness for this class, please feel free to contact me.

SOFTWARE REQUIREMENTS

You do not need to purchase any software to complete this class. However, you will need to use a number of free software programs, including the following:

- **Web Browser:** This goes without saying. If you didn't have a web browser, you wouldn't be reading this. But some web browsers are easier to develop with than others. Chrome and Firefox, in particular, are development-friendly because of the numerous extensions available to them. However, the fun part of being a web developer is that your designs need to work across multiple browsers, so as a web developer you need to have multiple browsers installed. The most popular include Chrome, Firefox, Internet Explorer, and Safari. If possible, you should find a way to test your sites in each of these.
- **Text editor:** A text editor is what web developers use to edit HTML, CSS, JavaScript, and the like. Most developers have a favorite. Some are free downloads, some are paid, and some come bundled with the operating system. Windows' text editor is Notepad, and Mac comes bundled with Text Edit. For this

class, I recommend using something with more capabilities than either of these two. Videos and explanations for this course will be based on the free Brackets (Links to an external site.) Links to an external site. editor. You can use something else if you prefer. However, if you use Adobe Dreamweaver, I expect you to work in code view.

- FTP Client: You will use FTP (file transfer protocol) to send files to our class server
 for hosting. You will need an FTP client to do this. There are a lot of options. I will
 show you how to use <u>FileZillaLinks to an external site.</u> (which is a free download for
 Mac or PC).
- Graphics Editor: Nice looking web designs use images. There is no getting around
 it. You will need something to be able to edit these graphics. The Adobe Creative
 Suite (Illustrator, Photoshop, Fireworks) is the industry standard for graphic design,
 but it costs a small fortune. If you aren't already fortunate enough to have access to
 one of these programs, a good free alternative is GIMPLinks to an external site.
 There is also pixlr.comLinks to an external site. if you want a good web-based
 alternative.
- Web Developer Browser Extensions: As a web developer, you spend half your time troubleshooting your code, dissecting other websites to learn from them, or using trial and error to get your desired result. There are several toolbars that assist immensely in this. A couple of common toolbars are the Web Developer ToolbarLinks to an external site., by Chris Pederick, and FirebugLinks to an external site. I also recommend ColorzillaLinks to an external site., a color picker extension for Chrome and Firefox. You will also be asked to install the WAVE toolbarLinks to an external site. to test for accessibility issues. Additional extensions will be pointed out as we move through the course.

Although this course will ask you to develop your websites to display well on mobile devices, you don't need a mobile device to complete this class. You can use a mobile device emulator.

COMPUTER LAB

I am willing to spend an hour or two most weeks in the ITLS computer lab (EDUC 280) to help in any way that I can. I will also have a WebEx online conference room open during that time for any students not in the Logan area (details to come as the conference room becomes available). The nights will be Wednesday or Thursday nights. Each week I will add a comment to the <u>General Class Discussion</u> for that week. Reply each week if you will be there.

COURSE CONTENT & EXERCISES

UNGRADED

READINGS

Most weeks will have assigned readings from a variety of openly available online resources. Many of these readings will come from W3Schools.com (Links to an external site.)Links to an external site. These are there for three reasons: 1) so you don't have to buy a textbook, 2) to give you information and context for the topic of the week and 3) to expose you to web-based resources that you can refer to later, since you will pretty much always be on the web when you develop after taking this class.

VIDEOS

I have included videos from several sources, some recorded by myself, others by Kevin Reeve & Neal Legler (other instructors for this course) and some from other online sources like YouTube. These videos address topics of the week and demonstrate the installation and use of web developer tools. You should find enough content to address the topic at hand at the beginning of the course, but I may include additional videos in later weeks as I get a better feel for where additional help may be needed.

UNGRADED W3SCHOOLS EXERCISES

The tutorials we will use from W3Schools includes a variety of exercises. You will not be graded for these, but they will give you excellent hands-on practice. I *strongly* recommend that you take the time to complete these exercises so that you learn the principles through application as you read. These exercises are rather short but very valuable.

5265 VS 6265

This course covers content for both Graduate credit and Undergraduate create. Throughout the course you will see additional readings and assignment requirements for those enrolled in ITLS 6265.

GRADED CHALLENGES

Your grade in this course will come from the following:

Challenge Type	Percent of Grade
Final Project Challenges	30%
Development Projects	30%
Content Mastery Quizzes	25%
Discussions	10%
Other	5%

Assignment Due Times

Assignments are due on Fridays at 9:00 AM.

Late assignments will be accepted at the cost of 5% of the assignment grade per day late. The first 5% will come off if it is submitted after 9 AM on Friday and then 9 AM on Saturday and so on.

FINAL PROJECT CHALLENGES (30% OF GRADE)

You will have the opportunity to develop a website of your own choosing that meets a number of project specifications. The last portion of the course will include a variety of challenges to lead up to this final project. Be thinking about what you might want to create. Additional details will be explained as we get closer.

Discussions (Peer Feedback)

There are three discussion activities related to the final project, in that their focus is to give you the opportunity to see what other students are doing and get feedback from your peers before you turn in your assignment for grading. My hope is to give you as many opportunities to get feedback as I can so that you can be successful, so as you participate in feedback activities, please be honest, yet civil, and constructive. The following discussions are designed to help meet that goal:

- Brainstorming ideas for your final project.
- Two opportunities to exchange peer feedback on your final project.

Website Project Proposal and Initial Design

You will have two assignments as you plan your final project, expectations for assignments are included with the assignment description.

- Proposal: a written plan of what you would like to do.
- Wireframes: a graphic representation of what you would like to create.

Final Project Submissions

The project is submitted twice to track progress and provide feedback opportunities. Both submissions are worth 50 points, and both will be graded on their merits according to the assignment description and rubric. There will also be two optional ungraded opportunities to submit your project for feedback.

DEVELOPMENT PROJECTS (30% OF GRADE)

You will build your development skills by completing a variety of projects. Requirements and expectations are included with the assignment description but a brief description is provided below.

- Resume (Parts 1 & 2): Build and style a basic resume.
- Silver City Form: Develop a form to gather information for a marketing campaign.
- CSS Menus & Responsive Design: Construct a basic page illustrating responsive design.
- Review a Website: Analyze a website and write up a report using HTML.
- News Website (Parts 1 & 2): Two part project developing a basic news website using HTML, CSS and JavaScript.
- JavaScript Libraries: Add some dynamic interaction to a page using JavaScript.
- **Script Identification Challenge:** Identify some JavaScript code on a website and try to figure out what it does.
- **Bootstrap Test Page:** Experiment with a CSS framework.

CONTENT MASTERY QUIZZES (25% OF GRADE)

Pretest (10 points): In the first week there is a simple pretest to assess what kind of experience you have with web development at the start of this course. The results of the quiz will help me identify how I can best tailor things to match your abilities. You will be graded for simply completing the pretest and not on whether you get the answers right or wrong.

Topic Mastery (10 points each): There will be nine topic specific quizzes. These are mastery quizzes, meaning you can take them as many times as you would like, with the highest score being kept. Most of the topics we will cover in this course will have a mastery quiz to help you solidify some of the factual details pertaining to HTML, CSS, basic JavaScript syntax and principles of accessibility.

Final Quiz (20 points): At the end of the course, there will be a final quiz that will review what you have learned throughout this course. It will pull questions from the topic mastery quizzes.

DISCUSSIONS (10% OF GRADE)

We will hold seven activities in the discussion forum, which will serve a variety of purposes and have varying participation expectations. Be sure to read the instructions associated with each discussion, as some will require replies for full points and others will not. Each discussion activity will be worth 10 points each. Discussion activities include:

- Introducing yourself (and seeing other student introductions).
- Sharing web resources.
- Discussing what makes a website engaging or disengaging.
- Identifying good examples of responsive design.
- Identifying JavaScript usage in websites.
- Critiquing website search engine optimization (SEO).
- General Class Discussion: This discussion will be open for the full duration of the class to find and receive help from other classmates. Earn points by asking and answering relevant questions.

OTHER CHALLENGES (5% OF GRADE)

Acknowledgements: There are several other challenges that will make up the remaining 5% of your grade. There are five quizzes to acknowledge that you have completed a given task.

- Canvas Profile Setup
- Academic Integrity Acknowledgement
- Development Tools Setup
- Super Markup Man
- Connect to ITLS SFTP Server

Pace of Class Survey: In week four you will have an opportunity to chime in on the pace of the class.

GRADE SCHEME

The following grading standards will be used in this class:

Grade	Range
A	100% to 93%
A-	< 93% to 90%
B+	< 90% to 87%
В	< 87% to 83%
B-	< 83% to 80%
C+	< 80% to 77%
С	< 77% to 73%
C-	< 73% to 70%
D+	< 70% to 67%
D	< 67% to 60%
F	< 60% to 0%

CANVAS INFORMATION

Canvas is the where course content, grades, and communication will reside for this course.

- http://canvas.usu.eduLinks to an external site.
 - Your username is your A#, and your password is your global password (the same one you use for Banner or Aggiemail).
- For <u>CanvasLinks to an external site.</u>, <u>PasswordsLinks to an external site.</u>, or any other computer-related technical support contact the <u>IT Service DeskLinks to an external site.</u>.
 - o 435 797-4357 (797-HELP)
 - o 877 878-8325
 - http://it.usu.eduLinks to an external site.
 - o servicedesk@usu.edu

ACADEMIC FREEDOM AND PROFESSIONAL RESPONSIBILITIES

Academic freedom is the right to teach, study, discuss, investigate, discover, create, and publish freely. Academic freedom protects the rights of faculty members in teaching and of students in learning. Freedom in research is fundamental to the advancement of truth. Faculty members are entitled to full freedom in teaching, research, and creative activities, subject to the limitations imposed by professional responsibility. Faculty Code Policy #403 (Links to an external site.)Links to an external site. further defines academic freedom and professional responsibilities.

ACADEMIC INTEGRITY - "THE HONOR SYSTEM"

Each student has the right and duty to pursue his or her academic experience free of dishonesty. The Honor System is designed to establish the higher level of conduct expected and required of all Utah State University students.

The Honor Pledge (Links to an external site.) Links to an external site.: To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge:

"I pledge, on my honor, to conduct myself with the foremost level of academic integrity."

A student who lives by the Honor Pledge is a student who does more than not cheat, falsify, or plagiarize. A student who lives by the Honor Pledge:

- Espouses academic integrity as an underlying and essential principle of the Utah State University community;
- Understands that each act of academic dishonesty devalues every degree that is awarded by this institution; and
- Is a welcomed and valued member of Utah State University.

ACADEMIC DISHONESTY

The instructor of this course will take appropriate actions in response to Academic Dishonesty, as defined the University's Student Code. Acts of academic dishonesty include but are not limited to:

- **Cheating**: using, attempting to use, or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity. Unauthorized assistance includes:
 - Working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done "individually;"

- Depending on the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
- Substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work;
- Acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission;
- Continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity;
- Submitting substantially the same work for credit in more than one class, except with prior approval of the instructor; or engaging in any form of research fraud.
- **Falsification**: altering or fabricating any information or citation in an academic exercise or activity.
- Plagiarism: representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes using materials prepared by another person or by an agency engaged in the sale of term papers or other academic materials.

SEXUAL HARASSMENT

Sexual harassment is defined by the Affirmative Action/Equal Employment Opportunity Commission as any "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature." If you feel you are a victim of sexual harassment, you may talk to or file a complaint with the Affirmative Action/Equal Employment Opportunity Office located in Old Main, Room 161, or call the AA/EEO Office at (435) 797-1266.

WITHDRAWAL POLICY AND "I" GRADE POLICY

Students are required to complete all courses for which they are registered by the end of the semester. In some cases, a student may be unable to complete all of the coursework because of extenuating circumstances, but not due to poor performance or to retain financial aid. The term 'extenuating' circumstances includes: (1) incapacitating illness which prevents a student from attending classes for a minimum period of two weeks, (2) a death in the immediate family, (3) financial responsibilities requiring a student to alter a work schedule to secure employment, (4) change in work schedule as required by an employer, or (5) other emergencies deemed appropriate by the instructor.

STUDENTS WITH DISABILITIES

Students with ADA-documented physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations. Veterans may also be eligible for services. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, (435)797-2444. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print, digital, or audio) are available with advance notice.

Contacting the Disability Resource Center (DRC):

- On Campus: Room 101 of the University Inn
- Phone: 435-797-2444
- Website: http://www.usu.edu/drc/ (Links to an external site.)Links to an external site.

Disability related resources for current students:

- DRC Student Handbook (Links to an external site.) Links to an external site.
- <u>Deaf and Hard of Hearing Student Handbook (Links to an external site.)Links to an external site.</u>
- Disability Related Scholarships (Links to an external site.) Links to an external site.
- Campus Resources (Links to an external site.)Links to an external site.
- Documentation Guidelines (Links to an external site.)Links to an external site.
- Online Resources for Students with Disabilities (Links to an external site.)Links to an external site.

DIVERSITY STATEMENT

Regardless of intent, careless or ill-informed remarks can be offensive and hurtful to others and detract from the learning climate. If you feel uncomfortable in a classroom due to offensive language or actions by an instructor or student(s) regarding ethnicity, gender, or sexual orientation, contact:

- Student Services: http://www.usu.edu/studentservices/ (Links to an external site.) Links to an external site., 435.797.1712, studentservices@usu.edu, TSC 220
- Student Advocates: http://www.usu.edu/ususa/legal/ (Links to an external site.) Links to an external site., 435.797.2912, TSC 340,
- Access and Diversity: http://www.usu.edu/accesscenter/ (Links to an external site., 435.797.1728, access@usu.edu; TSC 315
- Multicultural Programs: http://www.usu.edu/accesscenter/multiculture/ (Links to an external site.) Links to an external site., 435-797-1728, TSC 315
- LGBTQA Programs: http://www.usu.edu/accesscenter/lgbtqa/ (Links to an external site., 435-797-GAYS, TSC 314

Provost's Office Diversity
 Resources: http://www.usu.edu/provost/faculty/diversity/ (Links to an external site.) Links to an external site., (435) 797-8176

You can learn about your student rights by visiting:
The Code of Policies and Procedures for Students at Utah State
University: http://www.usu.edu/studentservices/studentcode/ (Links to an external site.)
Links to an external site.

GRIEVANCE PROCESS

Students who feel they have been unfairly treated may file a grievance through the channels and procedures described in the Student Code: <u>Article VII. Grievances (Links to an external site.</u>)Links to an external site.

FULL DETAILS FOR USU ACADEMIC POLICIES AND PROCEDURES CAN BE FOUND AT:

- Student Conduct (Links to an external site.) Links to an external site.
- Student Code (Links to an external site.)Links to an external site.
- Academic Integrity
- <u>USU Selected Academic Policies and Procedures (Links to an external site.)Links to an external site.</u>
- <u>USU Academic Policies and Procedures (Links to an external site.)Links to an external site.</u>
- Academic Freedom and Professional Responsibility Policy (Links to an external site.)Links to an external site.

EMERGENCY PROCEDURES

In the case of a drill or real emergency, classes will be notified to evacuate the building by the sound of the fire/emergency alarm system or by a building representative. In the event of a disaster that may interfere with either notification, evacuate as the situation dictates (i.e., in an earthquake when shaking ceases or immediately when a fire is discovered). Turn off computers and take any personal items with you. Elevators should not be used; instead, use the closest stairs.