# Web Technologies - Spring 2020

| IFSC 1310 | **Instructor:** <br> Thomas Wallace <br> tswallace@ualr.edu | **Location & Time:** <br> EIT 219 - 1:40pm - 2:55 - M/W | **Prerequisites:** <br> None |
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## Course Materials

All required materials will be available via my website located at http://thomaswallace.net.
**External / Cloud Storage** – 1GB Minimum (Google Drive works well)

## Course Overview

This course is an introduction to Internet client-side technologies and standards-based web development. The course will be divided into sections covering the core components of any web site/page. Core components include Structure, Content, Design (presentation), and Behavior. Three lecture hours per week.

## Course Relationship to ABET Curriculum

IFSC 1310 Web Technologies teaches students techniques, skills, and tools necessary for computing practice.

## Student Learning Outcomes

By the end of the course, students will be able to:

- Discuss key terminology and industry best practices related to website design and development, site security, file management and site optimization. This includes coverage of core technologies of the web stack, digital image creation and optimization, tooling and workflows of a modern web developer.
- Author valid content, and control the style and behavior of their websites using languages such as HTML, CSS, JavaScript and DOM (Document Object Model).
- Design and implement a web site based on criteria established by a client.
- Create and deploy to a production environment an accessible, standards-based web site using appropriate techniques.

## Course Relationship to ABET Student Outcomes

IFSC 1310 Web Technologies will help students to develop their abilities to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline

## Attendance

Attendance is critical in mastering the course material. If you must miss class, please send an email to tswallace@ualr.edu before class begins explaining the reason for your absence.  Participation implies making comments, observations and contributions and asking questions in the classroom. Excessive unexcused absences will negatively your participation grade.

## Grading

**Your grade will be based on these areas:**

10% – Participation &  Self-Initiated Learning

30% – Homework Assignments

30% – Skill-Based Assessments  (3  – HTML5, CSS,  Applied JS)

30% – Final Web Site Project

**Grading Scale:**

| | |
|---|---|
| A | 100% – 90% |
| B | 80% – 89% |
| C | 70% – 79% |
| D | 60% – 69% |
| F | Below 60% |

## Grade Appeal Policy

**https://ualr.edu/policy/home/student/grade-appeals/**

## Policy for Late/Missed Work

Students are expected turn in all assignments on time. Failure to do so will result in reduced or no credit for the assignment. Only in the case of extenuating circumstances will an extension be granted. Credit for Late Assignments

- **1st Offense** – Maximum 75% Credit if submitted with 24 hours of the due date.
- **2nd Offense** – Maximum 50% Credit if submitted with 24 hours of the due date.
- **3rd Offense** – No Credit

## Office Hours and Instructor Presence

Your success in this course is important to me. I will be available to meet in person or virtually at the following times: **Monday/Wednesday** – 9:00am-Noon | **Tuesday/Thursday** – 11:00am -Noon | **Friday** – 9:00am -Noon To schedule an appointment please email at tswallace@ualr.edu.

All course content will be delivered during the scheduled classroom sessions by the Instructor, except in cases of a relevant guest speaker.  Additional support is available via EIT Student Academic Services. To schedule a tutoring session visit https://ualr.edu/eit/tutor/.

## Course Format

The course will be conducted as a seminar. Participation counts and may include small group presentations and exercises. A high level of student participation is required. Make sure that all assigned preparation and readings are done in advance and that you are ready to engage in full examination and discussion of topics. The instructor will not hesitate to call on students for questions and comments. It is, therefore, critical that reading assignments be completed before class in which they are addressed and reviewed.

## Academic Integrity

Plagiarism on any assignment will at a minimum result in 0 points for the assignment. We reserve the right to pursue further disciplinary action if appropriate (e.g. any student caught cheating on an assignment/assessment will receive an "F" for the course, and we may pursue action with the Committee on Academic Integrity). Plagiarism includes copying someone else's work and claiming it as your own, or collaborating excessively with another person or persons and claiming the work as solely your own. It is strongly recommended that students maintain a record of the preparation of their major assignments.

## UA Little Rock Disability Policy

Your success in this class is important to me, and it is the policy and practice of the UA Little Rock to create inclusive learning environments consistent with federal and state law. If you have a documented disability (or need to have a disability documented), and need an accommodation, please contact me privately as soon as possible, so that we can discuss with the Disability Resource Center (DRC) how to meet your specific needs and the requirements of the course. The DRC offers resources and coordinates reasonable accommodations for students with disabilities. Reasonable accommodations are established through an interactive process among you, your instructor(s) and the DRC. Thus, if you have a disability, please contact me and/or the DRC, at 501-569- 3143 (V/TTY) or 501-683- 7629 (VP). For more information, please visit the DRC website at ualr.edu/disability.

## UA Little Rock Inclement Weather Policy (215.1)

1. During inclement weather, UA Little Rock will make a decision whether or not to close based on all available information.
2. The chancellor will decide whether or not conditions warrant canceling classes and activities and closing the campus or whether classes and activities will be canceled but with specified campus offices open. Online or web-enhanced classes will continue as scheduled at the discretion of the faculty member.

3. The UA Little Rock website, UA Little Rock email, the university's main telephone number (501.569.3000), and the Rave campus alert notification system are the official means of communicating information concerning weather-related closings.

4. When necessary, the university will announce a separate decision about canceling night classes (those classes starting at 4:20 p.m. or later) by 2 p.m., if possible.

5. Ordinarily, sites remote from campus such as the the Bowen Law School, the Arkansas Studies Institute, and the Benton Center will close or cancel classes and activities whenever the university does so. In some circumstances, however, a separate decision may be made whether or not a site remote from campus will be open or closed, and this decision will be announced through the university's official means of communicating weather-related closings.

6. Vice chancellors are responsible for seeing that necessary services are provided in their respective areas when the university is closed. Employees required to provide such services will be identified by their supervisors. Classified employees who must report to work when the university is closed due to inclement weather will be allowed compensation time of 1.5 hours for one hour worked. Persons who are not required to work when the university is closed will be granted authorized absence. Employees who do not report to work when the campus is open will be charged annual/compensatory leave or leave without pay. The Payroll Department will prescribe payroll reporting and timekeeping.

7. The Policy Advisory Council of the University Assembly will recommend to the chancellor if and when missed undergraduate and graduate class days should be made up. In the event that the university is closed during a final examination day, the provost, in consultation with the Faculty Senate president, will reschedule any missed graduate or undergraduate final examinations with the exception of online exams which will continue as scheduled.

8. Weather and road conditions vary from place to place. Employees and students are expected to exercise good judgment regarding the safety of travel when road conditions are affected by the weather.

# Detailed Schedule

## Week 1

- Review Syllabus and course expectations
- Our Window to the Web: Web Browsers & Understanding Web Related Terminology

## Week 2

- Structure, Content, Design, & Behavior and a discussion on Naming Conventions, Meta Naming, Directory Structure
- **Structure:** Introduction to HTML5 – Properly Marking up an HTML5 Document (Headings, Paragraphs, Lists, Links, Images.

## Week 3

- **Structure:** Introduction to HTML5 - Properly Marking up an HTML5 Document (Tables , Forms, Attributes)
- **Structure:** Block (Structural) vs. Inline (Text-level Semantics) Elements, Additional HTML Attributes
- **Structure:** Terminology and Concepts Quiz

## Week 4

- **Site Management:** Building Development Environment, File management, Publishing to web server
- **Assessment:** Develop a prototype html document project

## Week 5

- **Design:** Introduction to CSS – Creating and attaching a stylesheet – Type, ID, Class Selectors
- **Design:** CSS Syntax, Styling the elements of your site, Resetting vs. Normalization CSS

## Week 6

- **Design:** Using CSS for Layouts – CSS Box Model / Flexbox
- **Design:** Using CSS for Layouts – In-class Lab  (Positioning Lab Assignment)

## Week 7

- **Design:** Color Theory and Designing with Grids
- **Assessment: Style prototype HTML document and publish to server**

## Week 8

- **Design:** Introduction to Graphic Design concepts – Working with Shapes, Symbols and Text  |

Rasterized vs. Vector Imagery
- **Design**: Introduction to Graphic Design – Filters, Guides, and Paths, Cropping
- Vector Icon Design Assignment

## Week 9

- **Design:** Introduction to Graphic Design - Web Site Banner Case Study – Explore the design process using a combination of the techniques we have used thus far |
- Image Optimization
- **Structure / Design**: Integrating Images into your site template
- **Structure**: Validating your site Template | Finalizing Page Structure | Duplicating Pages
- Assign Individual Web Project

## Week 10

- Project Q&A
- Web Forms

## Week 11

- **Project Consulting:** The client Interview / Site Planning / Prototyping
- **Behavior:** Introduction to JavaScript – Your First Script, Document Object Model (DOM)
- Assign Final Project

## Week 12

- **Behavior:** Introduction to JavaScript – The Power of JavaScript Libraries
- **Behavior:** Progressive Enhancement Case Study

## Week 13

- **Behavior:** Introduction to JavaScript – JQuery in-class lab
- **Special Topic:** Web Accessibility

## Week 14

- Final Project Troubleshooting / Optimization
- Next Steps and Evaluation

## Week 15

- Final Web project Due at time of Final