University of Missouri
School of Information Science and Learning Technologies

IS & LT 4356 & 7356 – Spring 2015

Interactive Web Design with JavaScript (3 Hrs.)

Instructors: TBA
TA: Zone Mentors

Course Information | Grading and Deadlines | Student Responsibilities | Course Policies | Disabilities and Accommodations | Academic Dishonesty | Intellectual Pluralism | Nondiscrimination | Executive Order No. 38

Course Information

Course Overview

The purpose of this course is to provide students with opportunities to explore, use, and synthesize various JavaScript frameworks, user interface and visualization libraries, and plugins while creating interactive user experiences with html5, CSS and JavaScript animation. The course will cover topics like interactive photo galleries, responsive Web design, animation, user interactivity, jQuery, and development environments.

This is an ONLINE course with no regular in-person or classroom meetings. The course is offered via Sakai (https://sakai.missouri.edu/portal) and supported by Mentors and Instructors who work in the Digital Media Zone.

Prerequisites

Students should have taken 4370/7370 Intermediate Web Development, or be able to demonstrate the following knowledge and skills:

- hand-coding html, CSS, and JavaScript using a text editor
- creating and formatting a web page (i.e., html knowledge)
- accessing and maintaining a web site using FTP software
- inserting graphics
- setting up hyperlinks
- creating lists, tables and forms
- formatting elements using external CSS

Course Objectives

Upon the successful completion of this course, a student will be able to:

- HTML5
  - Evaluate visual html5 development environments
  - Hand-code valid html5
  - Use new html5 elements semantically
  - Store data locally on the client's browser
  - Use and compare mobile development platforms
- CSS
  - Use CSS3 transition effects
  - Create and apply CSS3 animation effects
  - Write valid CSS code
  - Apply existing CSS from plugins to pages
  - Position elements relative or absolute for JavaScript interactivity
  - Use CSS classes and ids with JavaScript
  - Create a responsive web page design
  - Test styling across browsers and platforms
- JavaScript/jQuery
  - Use JavaScript to manipulate page elements (change content or position)
  - Apply existing jQuery code and jQuery plugins to create interactive effects
  - Create JavaScript functions
  - Create JavaScript loops
  - Find and fix JavaScript errors on a web page
  - Create and manipulate JavaScript arrays/objects
  - Send/retrieve data to/from a server using jQuery and AJAX
  - Create visual effects using JavaScript/jQuery
- Interactivity
  - Create an interactive photo gallery
  - Synthesize what is learned in the course with a reflective demo website
  - Create an interactive online experience (a game, a 3D experience or an instructional application)
  - Animate elements on a web page in response to user interactions
  - Apply appropriate visual design, based on colors, fonts, composition, etc.
  - Create intuitive and user-friendly interfaces
  - Reflect on the practice of front-end web design

Instructor Information

TBA
Zone Mentor, SISLT
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Phone: (573) 882-1653

Facilitation Team / Zone Mentors

Zone Mentors, SISLT
Email: zone@missouri.edu

Virtual Office Hours

By appointment, can meet in-person, or virtually via email. Use the "Private Messages" feature in the Sakai course "Discussion and Private Messages" option in your left navigation bar.

Graduate Teaching Assistants: Zone Mentors. You can reach them via zone@missouri.edu.

Digital Media Zone

The ZONE is staffed by Mentors (Faculty and PhD students) who are focused on helping you *learn by doing*. The ZONE is a physical and virtual space/place where you can receive help and support from those who have special knowledge and skills, but where you are ultimately responsible for your own learning. Your Instructor and the ZONE Mentors do not teach you in a traditional classroom approach. *They help you learn by providing guidance and support while you learn by doing*.

The ZONE is part of the School of Information Science & Learning Technologies in the College of Education at the University of Missouri-Columbia. It is physically located in the top level of the Reflector in Townsend Hall. The Reflector is a technology-rich support environment for students in the MU College of Education.

To learn more about the ZONE and the full range of support for online students enrolled in Digital Media Zone courses offered by the ZONE, please visit http://zone.missouri.edu.

Here are directions and a map to the Zone

Course Materials and Resources

The following software is required for this class:

- Text Editor:
    - PC: NotePad, NotePad2, or **NotePad++**
    - Mac: TextEdit, TextWrangler, or Smultron
    - Online: Cloud9 IDE (http://c9.io), or jsFiddle (http://jsfiddle.net)
- Browsers (you should have all that are listed):
    - **Google Chrome**
    - Safari
    - Internet Explorer
    - Mozilla Firefox
    - Opera
- File Transfer Protocol (FTP) program: SecureFX (for PC users) OR MacSFTP (for Mac users). You can download a free copy of FTP programs from the Software Distribution Center.
- Student support and additional resources are offered through the Digital Media ZONE.

Textbooks:

- There is no required textbook for this course.

[Back to Top]

Grading

The following assignments must be turned in for a grade. It is your responsibility to submit these assignments by the due dates (listed in the Course Schedule)

Assignment	Percentage
I. Class Participation	10
II. Mini Projects	
Mini Project #1	10
Mini Project #2	10
Mini Project #3	10
III. Major Interaction Project	30
IV. Synthesis Project	10
V. Reflective Blogging (8 blog posts)	20
Total	**100**

The dates for assignments may change as the semester progresses and brief descriptions of each element are listed in the [Student Responsibilities](#) section in the syllabus. Detailed instructions and assessment expectations will be provided later. All course information will be located in the Resources section of Sakai. Generally, the rubrics will determine whether the assignments contain the basic requirements and demonstrate solid work.

Grading Scale (Percentage)

All assignment scores will be calculated to the first decimal point, there will be no rounding of scores. The final course grade will not be rounded.

Graduate Students

Note: For the Synthesis Project, graduate students will be required to provide substantive descriptions and reflections on demos with a different assessment to support the expected learning outcomes of a graduate course. This information will be provided with the detailed instructions for the synthesis project. In addition, a passing score for graduate students is 70; thus anything below is an F.

A: (100-92), B: (91-80), C: (79-70), F:(69-0)

Undergraduate Students

A+: (100-97)	A: (96 - 93)	A-: (92 - 90)
B+: (89 - 87)	B: (86 - 83)	B-: (82 - 80)
C+: (79 - 77)	C: (76 - 73)	C-: (72 - 70)
D+: (69 - 67)	D: (66 - 63)	D-: (62 - 60)
F : (59 - 0)		

The following definitions of each grade are intended to provide a standard for judgment, not a rule that can be applied mechanically; thus, while a grade of C in an undergraduate course indicates adequate work, a grade of C in a graduate course indicates work of less than adequate quality.

- The grade of A is awarded for performance of outstanding quality.
- The grade of B is awarded for superior, but less than outstanding performance.
- The grade of C is awarded for adequate performance.
- The grade of D is awarded for performance that marginally meets minimum standards. In most, but not all, cases a grade of D in a prerequisite undergraduate course is regarded as adequate for enrollment in the next higher course, whether it be the same or a related department. The grade of D is not awarded to graduate students.

- The grade of F indicates a level of performance that is unacceptable.

[Back to Top]

Student Responsibilities

You will receive specific detailed instructions on how you should produce and turn in the projects in the online course material during the semester. ***All assignment guidelines and course information will be located in Resources***. Links to the guidelines will be provided in Assignments, where you will submit your work.

I. Class Participation

For class participation, you are required to contribute ideas (e.g. raising questions, helping others, sharing info/experiences, answering questions, etc.) on the Sakai discussion boards **at least five (5) times** throughout the semester. Helping others by answering questions or providing useful resources will be counted as 2 point each, maximum 10 points total. Questions related to learning materials or projects will be answered in the appropriate discussion forums rather than in private messages.

II. Mini Projects

The purpose of the units is to provide you with important knowledge and skills and practice activities while receiving feedback, which will help you with your mini projects and your major interaction project. Each student will complete all of the units. A unit is comprised of readings, walk-throughs and/or additional materials. You should strive to complete each unit to the best of your ability before asking for feedback on your mini project. You may feel free to use resources like HTML5 Boilerplate and Twitter Bootstrap for any of your projects in this course (these resources will be explained in one of the units).

You will complete three mini projects throughout the semester. Which three you complete is entirely up to you, as is the order in which you complete them (due dates will be posted in the course schedule). **Choose only three (3)** of the following mini projects:

- **Mobile Website Mini Project:** Create a mobile website that pulls data from another site.
- **Visualization Demo Mini Project:** Evaluate and demo/showcase the power of one visual JavaScript library (processing.js, Raphael.js or paper.js, see

- **Interactive Form Mini Project:** Using CSS, html5, and JavaScript, create the front end of an interactive form (accessible, user-friendly, validates form data, and sends data via AJAX).
- **Offline Web Application Mini Project:** Create an html5 Web app that stores data in the browser for offline access.
- **JQuery Plugin Mini Project:** Create a usable, unique and useful jQuery plugin with interactive elements.

After grades and feedback for each project have been posted, you should try to improve your mini projects based on the feedback you receive, and then upload your improved project to your Bengal space. This will help you to learn best practices, and encourage you to iterate on your designs. Any updates you make should be pointed out in later assignment submissions (so that your updated work may receive an updated grade).

III. Major Interaction Project

For the major interaction project, you will create an immersive Web environment. You can use any code you have already created in earlier mini projects, but this will be a much more substantial product. Your project should be representative of what you have learned in the course and of your web development capabilities (but should also be challenging for you). You will **complete only one (1)** of the following major interaction projects (choose one that best fits what you see yourself doing in the future):

- **HTML5 Game:** Create a simple and unique html5 game with animation and interactivity.
- **Interactive 3D Experience:** Create an interactive 3D environment/visualization Web experience using JavaScript/CSS3/canvas.
- **Instructional Application:** Create an instructional Web app with animations and user interactivity.

IV. Synthesis Project

Near the end of the semester, you will synthesize what you have learned in the form of a Website that explains your work throughout the semester (graduate students will include reflections on what you have learned) and demos of what you have created. You must also include an interactive photo gallery of some kind on at least one page of the site that uses a jQuery plugin.

V. Reflective Blogging

You will create a personal blog (if you do not yet have one), and will **post substantive blog posts 8 times** during the semester on aspects of your projects, what you are learning, and resources you have found. You will also provide feedback (via blog post comments) to one peer that you will be paired with during the semester (we will switch pairs midway through the semester to increase the diversity of your interaction). You should provide substantive feedback to your assigned peer's posts. You can receive a maximum of 20 points for this activity (2 points for each of your own substantive posts, up to a maximum of 16 points, and 0.5 points for each substantive comment on a peer's posts, up to a maximum of 4 points). This activity is meant to engage you in an important practice in the Web design field: public reflection on coding and resources.

How to Succeed in This Course

This course moves quickly as we cover a lot of material in one single semester! You should check the Home Page of the course (in Sakai), Announcements and Discussion Forum(s) regularly for any changes or important announcements related to the course. Major course announcements will be e-mailed to your Mizzou e-mail address.

Here are some tips for getting most out of this course:

- Maintain a reasonable pace of work each week of the course. Do not wait until the week an assignment is due to begin engaging in the work. Make a work schedule for yourself indicating when you will focus on the topics of the course.
- Get to know your classmates and the ZONE mentors. Take advantage early of opportunities to learn about your classmates and let them know about you. Contribute to the discussions by posting good ideas and also by responding to what others write. Forming a community with your fellow students will make the course more enjoyable and will aid your learning.
- Work collaboratively. How much you learn and how much enjoy this course will depend on the sense of connection you develop with your fellow students. Try to help your fellow students and try to benefit from what they have to offer. Check the course discussion boards often – at least once a day.
- Check your understanding. Your goal is to understand the theories, principles, development, and concepts central to the course. Do not stop with the reading the course materials. Always review the underlying concepts and interact with your peers to see if you need to strengthen your understanding.
- Contact the Instructor, Graduate Teaching Assistant or ZONE Mentors when you need help. The ZONE Mentors are here to help you and you should feel comfortable to contact them anytime you need help with anything related to this course. For additional support see http://zone.missouri.edu/support.html

Course Schedule

Weeks	Topics	Assignments Due
Week 1	Unit 0 – The History of HTML5: Making it Interactive	
Week 2	Unit 1 – Animating with JS & CSS: Making it Move	Blog Post 1
Week 3	Unit 2 – Responsive Web Design: Making it Fit	Mini Project 1
Week 4	Unit 3 – HTML5 Resources: Making it Easier	Blog Post 2
Week 5	Mobile Development	Blog Post 3 (Mobile Development)
Week 6	Unit 4 – JavaScript Essentials: Making it Behave	Mini Project 2
Week 7	Unit 5 – JQuery Essentials: Making it Simpler	Blog Post 4
Week 8	Unit 6 – Debugging: Making it Work	
Week 9	Visual HTML5 Development Environments	Blog Post 5 (Development Environments)
Week 10	Unit 7 – Offline Web Apps: Making it Always Available	Blog Post 6
Week 11	Unit 8 – Painting the Canvas: Making it Visual	Mini Project 3
Week 12	Platforms & Browsers: Testing Your Code	Blog Post 7 (Platforms & Browsers)
Week 13	Work on Major Interaction Project	Blog Post 8
Week 14	Work on Major Interaction Project	
Week 15	Work on Major Interaction Project Work on Synthesis Project	Draft of Major Interaction Project
Week 16	Work on Synthesis Project Revise Major Interaction Project	Major Interaction Project Synthesis Project

[Back to Top]

Course Policies

Reviewing Student Work

Many ZONE online courses require you to present your work electronically so other students can see it; and you will also be asked to review the work of other students, as part of the instructional process of the class.

Your work may be used as an example of how to accomplish a technique or for ideas by other students. In many cases having other students review your work helps support your own learning and leads to better outcomes for everyone in the course.

If at any time you feel uncomfortable sharing your work, or with the feedback or comments on your work by other students, contact the instructor as soon as possible.

To protect student privacy and prevent the inappropriate or illegal use of student work, you are not allowed to distribute links or files of your peers' work to anyone outside the course. The viewing of peer projects is only for students enrolled in the course, and it is to assist with the learning activities. Therefore, the owner and developer of the Flash project will decide whether to distribute their work to people outside of the course.

Copyright

In previous semesters, students have borrowed material (either text or graphics) from other web sites without citing their source(s). It is essential that you understand that if material is not yours, you may not reproduce it without permission, or without citing your source. Please note: using an absolute link in an image to link directly to images on another web site is likewise not acceptable.

If you receive permission from the web site's owner to include media, then that is acceptable. You may also use media that is clearly offered for others' use, such as work offered under a Creative Commons license. See http://search.creativecommons.org/ for more information and http://www.flickr.com/creativecommons/ for examples.

Even if material is copyright-free, you should still give credit to the owner/source. Be aware that using a site such as images.google.com will provide you with lots of images, but most are not copyright-free.

If uncited material is found in any assignment, including the final project, you will receive an automatic zero for that assignment.

Feedback

You may receive feedback on all of your work. If you want feedback before an assignment is due, you MUST request the feedback at least 1 day prior to the due date to allow enough time for us to give you feedback and for you to implement our suggestions. If you submit a request for feedback at a later time, we will do our best to give you feedback but do not rely on our comments - we may be too busy to help you by the due date. No matter what, you should always utilize the knowledge base of your fellow classmates when you have a question or need help. Post to the discussion boards and ask for feedback from your classmates.

Feedback for all submitted assignments will be available in the Assignments section of Sakai, unless otherwise noted.

The discussion board is one of the primary communication methods for an Internet course and we all approach this Internet course with different experiences for using them. If the discussion board becomes ill structured and messy, then it can easily be an ineffective tool for communication and learning. With so many people posting comments, it then becomes difficult to follow a particular topic and for the instructors and ZONE mentors to check whom has contributed to a specific discussion. Thus, adhering to the following guidelines should make the use of the discussion board more efficient and effective:

1. Before creating a new thread or posting a comment in a forum, make sure that your specific topic or issue has not been posted on the board already. Hence, read the other postings and do not create new threads for the same topic.
2. When you do reply to a posting, you may want to rename the subject area so that readers will quickly know your main topic.
3. Post comments or create new threads in the most appropriate Forum for your topic.
4. Do not post "personal comments" to other classmates that do not relate to the main topic of the class discussion. Use email for these types of comments or another discussion forum.
5. The discussion board will not be used for personal complaints regarding workload or classmates. These postings will be removed from the discussion board. If you are having major problems, then you should send an email to the instructors.

Late Work

The due dates listed for assignments may change as the semester progresses. However, it is important to note that late work will be penalized. If you have conflicts, problems, or something unexpected arises, do not hesitate to contact the instructor, facilitator, or mentors. Submitted assignments will be reviewed and graded immediately after the posted due date. Assignments submitted within **2 days** after the due date will receive an automatic **10%** reduction in grade. Work will not be accepted after 2 days and you will receive an automatic zero. If you are having problems completing an assignment, you should contact the course facilitator as soon as possible, preferably before the due date. Otherwise, the assumption will be that you chose not to submit your assignment. *The **exception** to the 2 day grace period is the Synthesis Project. This assignment must be turned in on the due date.*

Note: Internet, computer, or technical problems are not valid excuses for late assignments. Make sure that you have a backup plan for accessing alternative computers for completing and submitting assignments.

Re-grading Policies and Procedure

Request for re-grading should be turned in via email no later than 48 hours after receiving the grade for each project. Write an email with a proper and detailed statement as to which part should be

reviewed and why you are requesting that it be regraded. If your statement is not appropriate, your request will not be honored. After a re-grading, you may receive a higher grade, the same grade, or a lower grade, depending on whether the same grading standard had been applied to your work before the review.

Incomplete

Incompletes in this course will be given if, and only if:

- The completed portion of the student's work in the course is of passing quality and
- There is such evidence of hardship as to make it unjust to hold the student to the limits previously fixed for the completion of his/her work.

If you meet the above criteria and you wish an Incomplete in this course, you must immediately send an email to (moorejoi@missouri.edu). In most cases, an Incomplete will result in an automatic drop in letter grade. Requests for Incompletes must be provided two weeks prior to the Final Project due date.

If there is not a specific agreement established between the Instructor and student, all the course assignments and projects must be completed and turned in for grades before the start day of the coming semester; otherwise, a letter grade F will be given for the course.

For more information on Incompletes, please visit the [Registrar's web site](#).

Course Withdrawal

Withdrawals will adhere to university policies regarding dates and grades. If a request for a withdrawal is submitted before the university due date, a student will only receive a W for a "passing" status in the course. Otherwise, an F will be reported.

For more information on Withdrawals, please visit the [Registrar's web site](#).

[[Back to Top](#)]

Disabilities and Accommodations

If you anticipate barriers related to the format or requirements of this course, if you have emergency medical information to share with me, or if you need to make arrangements in case the building must be evacuated, please the instructor as soon as possible. If disability related accommodations are necessary (for example, a note taker, extended time on exams, captioning), please register with the

Office of Disability Services (http://disabilityservices.missouri.edu), S5 Memorial Union, 882-4696, and then notify me of your eligibility for reasonable accommodations. For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.

The above statement is the standard statement required by the University, which does not seem to apply much if you are taking this course at a distance. If you have a disability that you feel requires special accommodations relative to this course, please contact your lead instructor, Dr. Joi Moore, using the contact methods provided at http://zone.missouri.edu/support/contact.html.

[Back to Top]

Academic Dishonesty

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as extremely serious matter. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, consult the course instructor.

[Back to Top]

Intellectual Pluralism

The University community welcomes intellectual diversity and respects student rights. Students who have questions concerning the quality of instruction in this class may address concerns to either the Departmental Chair or Divisional leader or Director of the Office of Students Rights and Responsibilities (http://osrr.missouri.edu/). All students will have the opportunity to submit an anonymous evaluation of the instructor(s) at the end of the course.

[Back to Top]

Nondiscrimination Statement

The University of Missouri-Columbia does not discriminate on the basis of race, color, religion, national origin, ancestry, sex, age, disability, or status as a disabled veteran or veteran of the Vietnam era. For more information, call the MU Human Resource Services Department at (573) 882-4256 or the U.S. Department of Education's Office for Civil Rights.

[Back to Top]

Executive Order No. 38

Academic Inquiry, Course Discussion and Privacy

University of Missouri System Executive Order No. 38 lays out principles regarding the sanctity of classroom discussions at the university. The policy is described fully in Section 200.015 of the Collected Rules and Regulation (Reviewhttp://www.umsystem.edu/ums/rules/collected_rules/ch200/200.015_academic_inquiry_course_discussion_and_privacy). In this class, students may not make audio or video recordings of course activity, except students permitted to record as an accommodation under Section 240.040 of the Collected Rules. All other students who record and/or distribute audio or video recordings of class activity are subject to discipline in accordance with provisions of Section 200.020 of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.

Those students who are permitted to record are not permitted to redistribute audio or video recordings of statements or comments from the course to individuals who are not students in the course without the express permission of the faculty member and of any students who are recorded. Students found to have violated this policy are subject to discipline in accordance with provisions of Section 200.020 of the Collected Rules and Regulations of the University of Missouri pertaining to student conduct matters.

Information about student views, beliefs, and political associations that fellow students and faculty members acquire in the context of course discussions should be handled responsibly. Students and faculty are encouraged to be sensitive to the potential that dissemination of information about fellow students derived from course discussions may be perceived as defamatory and/or may subject them to ridicule, harassment, or reprisal from those who do not agree with the views, beliefs, or political associations expressed in the context of the classroom.

Faculty should encourage free discussion, inquiry, and expression in courses. Student performance shall be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards.

[Back to Top]