CS 3312: Web Programming
Spring 2019
Course syllabus

Class meetings
section 010: TR 9:30–10:45 in MCS 111B
section 020: TR 11:00–12:15 in MCS 111B

Instructor
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office location: MCS 205I
office hours: MTWRF 2:00–4:00 and by appointment

Textbook
There is no required textbook. I will recommend books and online resources throughout the semester. The following books are excellent and are available in the ASU library.
- JavaScript: The Good Parts by Douglas Crockford
- Learning Web App Development by Semmy Purewal
- Speaking JavaScript by Axel Rauschmayer
- Programming JavaScript Applications by Eric Elliott

Catalog description
Techniques for creating dynamic and responsive web pages using the latest markup, styling and client-side scripting technologies. Best practices for code maintainability and browser compatibility will be emphasized.

Prerequisites
Credit for either CS 1351 (Java Programming) or CS 1336 (Computer Science I) is a prerequisite for this course. Please see me if you haven’t taken either one, especially if you have no programming experience.

Grading breakdown
50% assignments/quizzes/homework
30% midterm exams (two or three)
20% final exam/project

Student learning outcomes
Students will
- create single-page Web applications using HTML, CSS and JavaScript.
- learn how to use JavaScript functions, objects and arrays.
- become familiar with tools that enforce correct and maintainable code.
- be introduced to techniques to make web apps responsive to devices of different sizes.
- be introduced to advanced techniques such as web storage, Ajax and timers.

Class format
This class meets in a computer lab, and most class sessions will feel like a cross between a regular lecture class and a lab session; I call this approach a “studio” format. Some studio sessions will be basically a guided lab exercise, a way to learn by doing, and some will be a short lecture followed by class time to work on the relevant assignment; some will require considerably more creativity than others. I hope that, by combining lecture and homework in this way, classes will be more interesting and effective. I also expect that the amount of work you have to do outside of class will be reduced, but you will still likely need to spend some time outside of class on many of the assignments.

This class format requires that you
- get to class on time every time.
- do all assigned research before class and come with relevant questions.
- work hard for 75 minutes.
Discussion and giving and receiving help are generally encouraged during studio sessions. You may be asked to work with a partner in some sessions and individually in others. You must list everyone you worked with on each studio assignment. Failure to do so is considered taking credit for work not done and thus cheating. In-class exams must be completed independently.

Participation is especially important for this class, which makes attendance important. You have a duty to inform me as soon as you know that you’ll have to miss a class. Missing class can hurt your grade both directly and indirectly. Also, when working together on an assignment, it is the group members’ responsibility to keep in touch, especially when one will miss class.

Instead of a comprehensive final exam at the end of the semester, I am planning a final project. If we have a final project, I will suggest ideas for projects and approve project proposals sometime in the second half of the semester. Project demos/presentations will be scheduled for the last regular week of classes.

Blackboard (http://blackboard.angelo.edu/) will be used to keep track of grades and assignments.

### Semester schedule

<table>
<thead>
<tr>
<th>week of</th>
<th>topic</th>
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<tbody>
<tr>
<td>January 15th</td>
<td>intro to single-page applications</td>
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<tr>
<td>January 22nd</td>
<td>HTML basics</td>
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<tr>
<td>January 29th</td>
<td>CSS basics</td>
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<tr>
<td>February 5th</td>
<td>JavaScript basics</td>
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<td>February 12th</td>
<td>JavaScript functions</td>
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<td>February 19th</td>
<td>event handlers</td>
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<td>February 26th</td>
<td>JavaScript objects</td>
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<tr>
<td>March 5th</td>
<td>JavaScript objects</td>
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<tr>
<td>March 12th</td>
<td>spring break</td>
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<tr>
<td>March 19th</td>
<td>JavaScript arrays</td>
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<tr>
<td>March 26th</td>
<td>code organization</td>
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<tr>
<td>April 2nd</td>
<td>web storage</td>
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<tr>
<td>April 9th</td>
<td>the canvas element</td>
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<tr>
<td>April 16th</td>
<td>timers</td>
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<tr>
<td>April 23rd</td>
<td>Ajax techniques and responsive design</td>
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<tr>
<td>April 30th</td>
<td>final projects</td>
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### Final exam/project

The final exam for this course is scheduled for Thursday, May 9th, 8:00–10:00 (section 010) and Tuesday, May 7th, 10:30–12:30 (section 020). If we have a final project rather than a final exam, I plan to use this time for late demos of final projects.

### Academic honesty

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. By remaining enrolled in this course you agree to adhere to the Academic Honor Code, which is contained in both print and web versions of the Student Handbook.

### Accommodations

Persons with disabilities which may warrant academic accommodations must contact Student Services in order to request and to implement academic accommodations. For ASU’s policy on absences due to religious holy days, please see OP 10.19 at http://www.angelo.edu/opmanual/.