CS 3312: Web Programming

Spring 2020 Course syllabus

Class meetings section 010: TR 8:00-9:15 in MCS 115

section 020: TR 9:30-10:45 in MCS 115

Instructor Rob LeGrand

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office phone: 325-486-5422 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.

 \bullet $\it JavaScript:$ 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 for browser and mobile compatibility will be emphasized.

Prerequisites

Credit for CS 1314, CS 1315, CS 1336 or CS 1351 is a prerequisite for this course. Please see me if you haven't taken any programming courses, especially if you have no programming experience.

Grading breakdown

50% assignments/quizzes/homework30% 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

- $\bullet\,$ 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 (blackboard.angelo.edu) will be used to keep track of grades and assignments.

Semester schedule

This schedule should be considered approximate and tentative.

week of	topic
January 14th	intro to single-page applications
January 21st	HTML basics
January 28th	CSS basics
February 4th	JavaScript basics
February 11th	JavaScript functions
February 18th	event handlers
February 25th	JavaScript objects
March 3rd	JavaScript objects
March 10th	spring break
March 17th	JavaScript arrays
March 24th	code organization
March 31st	web storage
April 7th	the canvas element
April 14th	timers
April 21st	Ajax techniques and responsive design
April 28th	final projects

Final exam/project

The final exam for this course is scheduled for Tuesday, May 5th, 8:00–10:00 (section 010) and Thursday, May 7th, 8:00–10:00 (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 not to commit academic misconduct as defined in section I.B.1 of the Student Handbook, available at www.angelo.edu/student-handbook.

Important university policies

- You must contact Student Disability Services in order to request and to implement academic accommodations.
- For ASU's policy on absences due to religious holy days, see OP 10.19 at www.angelo.edu/opmanual.
- I am obligated to report any knowledge of sexual misconduct to the Title IX office; see www.angelo.edu/services/title-ix.