CS 3312: Web Programming

Spring 2022

Course syllabus

Class meetings

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

Instructor

Rob LeGrand
e-mail: `rlegrand@angelo.edu`
webpage: `www.cs.angelo.edu/~rlegrand/`
office phone: 325-486-5422
office location: MCS 205I
office hours: online MTWRF 2:00–4:00 and by appointment

Textbook

There is no required textbook. I will recommend online resources throughout the semester. The following books are good 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 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

60% assignments/quizzes/homework

25% midterm exams (two or three)

15% 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. 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 when working on assignments, but all work you turn in must be your own; anything you turn in you must understand thoroughly and be prepared to explain in detail. Whenever you work with anyone but me (including tutors) in any way, you *must* write fully detailed comments in your code describing the help: *who* helped, *how* they helped on *which* part(s), etc. Failure to do so is considered taking credit for work not done and thus cheating. I will be glad to help you on assignments and concepts when you need it. You must complete exams *entirely* independently.

I will take attendance, and you will need to sit in the same place all semester. 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 meeting.

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.

Blackboard (`angelo.blackboard.com`) will be used to keep track of grades and assignments. You should check Blackboard and your ASU e-mail at least once a day to make sure you're not missing anything. In particular, your ASU e-mail is the only reliable way I have of contacting you outside of class, so please don't neglect it.

Safety

Students must complete the required ASU Wellness Screening each day before coming to class. I strongly recommend and encourage wearing a mask covering both mouth and nose before, during and after class meetings. I also recommend keeping as much distance from others as is reasonably possible.

For safety reasons, I will hold office hours online using Blackboard Collaborate. Please take advantage of class meetings to ask questions and get help, but when you need help outside of class just get in touch and I'll do what I can to help.

Computer requirements

You may use PCs in the computer labs, but I recommend that you have your own Windows 10 computer ready to use when you can't get to a lab. You may need to download and install free software, such as the Respondus LockDown Browser. It is your responsibility to have and use a reliable Internet connection; for best results, use an Ethernet cable to connect to your Internet source instead of relying on Wi-Fi.

Semester schedule

This schedule of topics should be considered approximate and tentative.

week of	topic
January 18th	intro to single-page applications
January 25th	HTML basics
February 1st	CSS basics
February 8th	JavaScript basics
February 15th	JavaScript functions
February 22nd	event handlers
March 1st	JavaScript objects
March 8th	JavaScript objects
March 15th	*spring break*
March 22nd	JavaScript arrays
March 29th	code organization
April 5th	web storage
April 12th	the `canvas` element
April 19th	timers
April 26th	Ajax techniques and responsive design
May 3rd	final projects

Final exam/project

The final exam for this course is scheduled for Thursday, May 12th, 8:00–10:00 (section 010) and Tuesday, May 10th, 10:30–12:30 (section 020). The plan is not to have a final exam, but we may use this time for some other purpose relating to the final project.

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`.

Modifications

This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.