CS 3312: Web Programming Spring 2024 Course syllabus

Class meetings section 010: TR 8:00-9:15 in MCS 111A&B

section 020: TR 9:30-10:45 in MCS 111A&B

Instructor Rob LeGrand

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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

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

 $60\% \ {\rm assignments/quizzes/homework}$

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 face-to-face 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.

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.

You will generally be asked to work individually on assignments. 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.

Exams must be completed *entirely* independently. 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

I encourage wearing a mask and keeping as much distance from others as is reasonably possible. Keep an eye on ASU's public health updates at www.angelo.edu/public-health.

For safety reasons, I will hold office hours online using Blackboard Collaborate. Please take advantage of face-to-face 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 or 11 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 to use a reliable Internet connection; for best results, use an Ethernet cable to connect to your Internet source instead of relying on Wi-Fi. You will need a microphone to use Blackboard Collaborate for virtual office hours.

Semester schedule

This schedule of topics should be considered approximate and tentative.

week of	topic
January 16th	intro to single-page applications
January 23rd	HTML basics
January 30th	CSS basics
February 6th	JavaScript basics
February 13th	JavaScript functions
February 20th	event handlers
February 27th	JavaScript objects
March 5th	JavaScript objects
March 12th	spring break
March 19th	JavaScript arrays
March 26th	code organization
April 2nd	web storage
April 9th	the canvas element
April 16th	timers
April 23rd	Ajax techniques and responsive design
April 30th	final projects

Final exam/project

The final exam for this course is scheduled for Tuesday, May 7th, 8:00–10:00 (section 010) and Thursday, May 9th, 8:00–10:00 (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 for more.

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.