CS 3312: Web Programming
Spring 2021
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
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 on demand 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
Current circumstances require a different class format than I would prefer. I’d like to use a “studio” format, with some class time used to work on assignments and get help on them, but I need to accommodate those students who won’t be coming to campus. I plan to record/stream any in-class lectures, and we may also use a “flipped classroom” style if necessary. I will post everything you need (videos, reading assignments, other materials, announcements, instructions, assignments, quizzes, exams, etc.) online. It is very important that you watch all assigned videos and do all assigned reading before coming to class.
Because of distancing requirements we won’t have enough room in the classroom for everyone to attend every time, so I’ll need to divide the class into two groups: one that attends only on Tuesdays and one that attends only on Thursdays. I will take attendance, and you will need to sit in the same place all semester. Attendance is strongly encouraged but will not directly affect your grade.

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.

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, the course webpage 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, so please don’t neglect it.

Safety

In compliance with university policy, students in this class are required to wear a mask covering both mouth and nose before, during and after class meetings. Students must also complete the required ASU Wellness Screening each day before coming to class and keep as much distance from other students as is reasonably possible. When entering the classroom, students should use provided disinfecting wipes to clean their desk area. For the safety of everyone, any student not appropriately wearing adequate facial covering will be asked to leave the classroom immediately; the student will be responsible to make up any missed class content or work. Continued noncompliance with university policy may result in disciplinary action through the Office of Student Conduct.

For safety reasons, I will hold office hours online on demand 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.

<table>
<thead>
<tr>
<th>week of</th>
<th>topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 26th</td>
<td>intro to single-page applications</td>
</tr>
<tr>
<td>February 2nd</td>
<td>HTML basics</td>
</tr>
<tr>
<td>February 9th</td>
<td>CSS basics</td>
</tr>
<tr>
<td>February 16th</td>
<td>JavaScript basics</td>
</tr>
<tr>
<td>February 23rd</td>
<td>JavaScript functions</td>
</tr>
<tr>
<td>March 2nd</td>
<td>event handlers</td>
</tr>
<tr>
<td>March 9th</td>
<td>JavaScript objects</td>
</tr>
<tr>
<td>March 16th</td>
<td>JavaScript objects</td>
</tr>
<tr>
<td>March 23rd</td>
<td>JavaScript arrays</td>
</tr>
<tr>
<td>March 30th</td>
<td>code organization</td>
</tr>
<tr>
<td>April 6th</td>
<td>web storage</td>
</tr>
<tr>
<td>April 13th</td>
<td>the canvas element</td>
</tr>
<tr>
<td>April 20th</td>
<td>timers</td>
</tr>
<tr>
<td>April 27th</td>
<td>Ajax techniques and responsive design</td>
</tr>
<tr>
<td>May 4th</td>
<td>final projects</td>
</tr>
</tbody>
</table>

Final exam/project

The final exam for this course is scheduled for Tuesday, May 11th, 8:00–10:00 (section 010) and Thursday, May 13th, 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.

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.