

Advanced Client-Side Web Programming CSCI 491/595 Syllabus Fall 2018

CSCI 491/595 Section 00

Instructor: Michael Cassens

Office: SS 411

Office Hours: MWF 11:00-11:50 am or by appt

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URL: <http://umonline.umt.edu/>

Overview:

This class is designed to give you a good general understanding client-side programming technique and tools currently used in web programming today. This course will focus on HTML5, CSS, JavaScript, and JQuery. Having knowledge in server side programming is a plus, but not a requirement. The objectives of the course are as follows:

- General Client-Side Web Concepts
- Applying Object Oriented Concepts in web programming
- Logical Reasoning and Critical Thinking
- HTML and JavaScript Programming Constructs

Upon completing this course, a student will be able to:

- Understand the difference between client-side and server side programming
- Declare and understand how to write client side scripts using JavaScript
- Create client side programs using HTML5 Canvas and JavaScript
- Use the JQuery library to create client side programs
- Understand how CSS works and be able to create responsive websites
- Create offline client side applications
- Create test cases for programs written
- Read from files, iterate through the file and manipulate the data within the file

Attendance:

Attendance is mandatory however I realize there are times when you must be absent. Please give me advance notice of any absences, and I will provide you with the same courtesy.

Class consists of Tuesday and Thursday from 11:00 am – 12:20 pm in SS 362. There is no official lab, but most likely we will hold a lab session on Fridays to provide hands-on learning opportunities

Grading:

Homework 35%

Labs 15%

2 Project Updates 15% for each project update

Final Project Turn In 20%

Final Project Due: Friday Dec 14th, 2018 11:55 pm

All Assignments will be submitted through Moodle assignments. If you have trouble with your submission, please send them to

michael.cassens@mso.umt.edu

Your subject must be CSCI 491/595 Assignment # (e.g CSCI 491 Assignment 1)

**If you have multiple files, please zip all your files and label your file:
"CSCI491/595LastNameAssignment1.zip"**

Graduate Component:

As a graduate student, the final project must meet one of the following requirements:

1. Fully functional client game and a supporting web site
2. Fully functional client side web application that stores/retrieves data in a database
3. Other larger projects approved by the instructor.
4. Give a lecture on a client-technology including a student activity

Grading Scale

100-90 A, A-	79-70 C+, C, C-	59-and beyond F
89-80 B+, B, B-	69-60 D+, D, D-	

P/NP – pass/no pass, 70 or greater is passing determined by Computer Science Department policy, which is a C or better.

Late Assignments:

- Late assignments will not be accepted. Sorry for the inconvenience.

Requirements

- Required Texts:
 - A Software Engineer Learns HTML5, JavaScript and jQuery: A guide to standards-based web applications
 - Dane Cameron
 - http://www.amazon.com/gp/product/B00GAMTRI8/ref=oh_aui_d_detailpage_o02_?ie=UTF8&psc=1
 - Optional Texts:
 - The Definitive Guide to HTML - Adam Freeman
 - Pro jQuery 2.0 - Adam Freeman
 - Pre-requisites for this course: CSCI 136
 - Required Software:
 - **Notepad++, Komodo, Visual Studio, etc. Some editor of your choice**

Suggestions:

- It would be beneficial to read and ask as many questions as you can.
- Feel free to set up an appointment if you need help. I am here to help you understand and do well.

Collaboration:

- I encourage you all to work together through problems – make sure you comment who you worked with at the top of the page, but copying and plagiarism will not be tolerated. If you are caught cheating, I will give you an F for the course.
- Please refer to the Student Conduct Code in how this will be dealt with: http://life.umt.edu/VPSA/student_conduct.php

Incompletes:

“Incomplete for the course is not an option to be exercised at the discretion of students. In all cases it is given at the discretion of the instructor....” Some guidelines for receiving an incomplete are listed in the catalog which include having **a passing grade up to three weeks before the end of the semester** and being in attendance. **“Negligence and indifference are not acceptable reasons.”** Also note that there may be financial aid implications.

Late Drops:

The University’s policy on drops after **45** days of instruction is very specific. The Computer Science Department follows this policy rigorously. There are five circumstances under which a late drop might be approved: registration errors, accident or illness, family emergency, change in work schedule, no assessment of performance in class after this deadline. Except in very unusual circumstances, I will only approve late drops if there is documented justification for one of these circumstances.

Disabilities:

This course is accessible to and usable by otherwise qualified students with disabilities. To request reasonable program modifications, please consult with the instructor. Disability Services for Students will assist the instructor and student in the modification process. For more information, visit the Disability Services website at <http://life.umt.edu/dss/>.

Class Etiquette:

- Be respectful of your fellow classmates.
- Call me anytime if you have a question.
- Profanity and Obscenity will not be tolerated in class or assignments.

Special Dates:

- Aug 27, 2018 Classes Begin
- Sept 3, 2018 Labor Day – No class
- Sept 17-21, 2018 Out of town – class online
- Oct 3-5, 2018 Out of town – class online
- Oct 15, 2018 Out of town – class online
- Nov 6, 2018 Election Day – No class
- Nov 12, 2018 Veteran’s Day – No class
- Nov 21-23, 2018 Thanksgiving – No class
- Dec 7, 2018 Last Day of class
- **Final: Dec 14th, 2018 11:55 pm**

Tentative Schedule:

Syllabus Review and Overview of the course
 Week 1 Introduction of HTML5, CSS
 Week 2 Introduction Cont. HTML5, CSS, Bootstrap
 Week 3 JavaScript Basics
 Week 4 JavaScript Programming - online
 Week 5 jQuery introduction
 Week 6 jQuery programming
 Week 7 Project Update 1 – During week of Oct 9th-11th, 2018
 Week 8 Web Storage and Data Storage
 Week 9 Offline Web Applications, Web Workers
 Week 10 AJAX
 Week 11 Phaser.io, Babylon.js, WebGL
 Week 12 Node.js
 Week 13 Thanksgiving
 Week 14 Angular
 Week 15 Project Update 2 Dec 4th -6th, 2018
 Week 16 Final Project Due – **Tuesday Dec 14th, 2018 11:55 pm**

Project Outline:

- Week 1 – Create a group
- Week 2 – Project Idea – please include an outline of the idea and any specifications
- Week 3 – What design tools are you using, what editor and what source control you are using
- Week 4 – Design of project – pages needed, storyboard of how they will interact, how you will test it
- Week 5 – Provide a projected timeline of your project
- Week 6 – What will you use to present your project
- Week 7 – Presentation of your project – Include overview, functional and non-functional specifications, the design, the tools, timeline and current status, include what each team member has contributed
- Week 8 – How will you incorporate your feedback
- Week 9 – Give a mini-update on what you have done – include each team member’s contribution
- Week 10 – Give a mini-update on what you have done – include each team member’s contribution

- Week 11 – Give a mini-update on what you have done – include each team member’s contribution
- Week 12 - Give a mini-update on what you have done – include each team member’s contribution
- Week 13 – Nothing... Thanksgiving
- Week 14 - Give a mini-update on what you have done – include each team member’s contribution
- Week 15 – Final presentation of project – display what was accomplished
- Week 16 – Project turn in