CIS 311: Interactive Web Development

Fall 2016

Instructor: Stefan Bund, MS
Office: Building 164 Room 3017
E-mail: slbund at cpp.edu
Phone: 949.433.7487

1. Class Meetings and Office Hours

Class meetings:
Section 2:
Tuesday, Thursday from 1 pm until 2:50 pm, room 98C 4-035
Office Hours: Tuesday, Thursday 4 - 5:50 pm, office above

Section 3:
Tuesday, Thursday from 1 pm until 2:50 pm, room 98C 4-029
Office Hours: Tuesday, Thursday 4 - 5:50 pm, office above

2. Course Description

From our catalog:
The Design and development of web applications for business. Principles and applications of modern website design. Use of client-side scripting for website dynamics and interactivity. Development of server-side scripts for three-tier web applications. 4 units lectures/problem solving.

Instruction will focus upon core protocols supporting browser markup and web-based applications: html 5, CSS, javascript, server side scripting, cloud infrastructures and internet-facing data bases. The course entails a hands-on basis for learning, with deliverables in the form of projects and programming exercises. Students should use the course as a means to discover a potential major (application development) while gathering deep understanding about the security and infrastructure demands of employee and public-facing web applications. Additional discussion explores the corporate strategic impact of web development, and organizational/cultural change.

3. Learning Objectives

Students successfully completing this course should have acquired the ability to:

- Understand different types of web applications and how they work.
- Analyze and translate user needs and requirements into a software architectural model.
- Create wireframes and prototypes of user-centered and SEO-friendly web sites
- Create structure and content for web sites using standards-compliant HTML and HTML 5.
- Create styles for web sites using Cascading Style Sheets (CSS).
- Interact with users using client-side Javascript.
- Understand how ASP.NET works to enable dynamic contents and web applications.

- Control the flow of scripts, use conditional statements, loops, strings and arrays, write reusable modules in Visual Basic.
- Collect, validate and process information entered by users via web forms.
- Build dynamic web site that connect to a text file and database, insert, present and modify data in sophisticated ways.
- Understand the basics of web analytics and optimization, including the role of content, link building, social media marketing, usability, accessibility, other search engine and conversion optimization tactics.

4. Prerequisites

A minimum grade of C (2.0) in CIS 304, 305

5. Textbook and Software

Recommended Textbooks:

None. Many online sources will be assigned for reading, each week. Please consult your assignments on github for your weekly, and per-class reading.

Required Web Development Software:

For client-side development: A text editor. Options include: Notepad (plain mode, default on all Windows), TextEdit (plain mode, default on all Mac) notepad ++ (freeware), and Dreamweaver (student discount available at bookstore).

For server-side development: Microsoft Visual Studio 2010 Premium (free and available on CIS dept website -> MSDNAA Download) with built-in MS SQL server Compact. Alternatively you can install Visual Web Developer 2010 Express

6. Exams, Projects and Assignments

Exams: There will be one midterm and one final exam. Final exam is comprehensive, with emphasis on the content after the midterm.

Projects: There will be 3 projects. The goal of the projects is to apply comprehensive knowledge and skills you learned in class to create a sophisticated web application that solves a specific business problem. Each project builds upon the last, and builds a web development product, iteratively.

Final Project Presentation
Students will present their final project to the Instructor or to the class.

Make-up policy: There will be no make-up exams except for serious and compelling reasons that are substantiated with formal documents. For example, medical cases have to be substantiated with valid doctor or hospital note stating that the student is too ill to attend the exam.

Late assignments or projects: Late assignments or projects submitted within one week after due date and time will be penalized 50%. Late assignments or projects submitted more than one week late will not be accepted. If the student submits an assignment or project late, the student is responsible to send an email to notify the instructor upon submission; otherwise the assignment or project will not be graded.

Tutoring: For free tutoring on campus, contact the Learning Center in the library.

7. Grading

Grade	Percentage
A	93.00-100.00
A-	90.00-92.99
B+	87.00-89.99
B	83.00-86.99
B-	80.00-82.99
C+	77.00-79.99
C	73.00-76.99
C-	70.00-72.99
D+	67.00-69.99
D	63.00-66.99
D-	60.00-62.99
F	0-59.99

Your Deliverable	Percentage Weighting
Midterm Exam	**10**
Final Exam	**10**
Assignments(3 @ 25% each)	**75**
Final Project Presentation	**5**
total	**100**

8. Class Communication

E-mail: All emails must be sent to the instructor via Cal Poly email account, must be signed with the student's first and last name, and must have "CIS 311" in the subject line, or it may not be read or responded. Please consult the syllabus before sending emails. Messages sent through Blackboard will not be read.

Assignment submission
Unless otherwise noted, all assignments are to be uploaded to a free web-based hosting account on Amazon Web Services (AWS), then the link is to be sent to the Instructor for review.

Github: Course materials including announcements, lecture presentations, assignments, projects documents, classroom exercises and solutions, and grades will be posted on Github. All graded assignments and projects will be visible in Blackboard Gradebook. Our github will be:

- https://github.com/stefanbund/311

Refer to the Github page above for all homework, learning materials, lesson plans and other details critical for your success in 311.

Subject to Change: This syllabus and class schedule are subject to change. If the student is absent from class, it is the student's responsibility to check on announcements made and make up the work while absent.

9. Course Policies

Classroom environment: The classroom is a special environment in which students and faculty come together to promote learning and growth. It is essential to this learning environment that respect for the rights of others seeking to learn, respect for the professionalism of the instructor, and the general goals of academic freedom are maintained. Student conduct which disrupts the learning process shall not be tolerated and may lead to disciplinary action and/or removal from class.

Using laptops, cellphones and other electronic devices:
- Using laptops during the class for anything other than this class, personal conversations, talking or texting on cell phones or other distracting behavior are prohibited.
- As a courtesy to all, please turn off all cell phones and pagers during class. If the student needs to be reached for family medical or significant work-related issues, the student must present evidence to the instructor before the class starts.
- Absolutely no cellphones or other electronic devices may be used during an exam or quiz.

Attendance:
- Arrive on time. Do not disturb other students by asking for directions or help on exercises when arrived late.
- If the student needs to leave early, the student must let the instructor know before the class starts, and choose a seat that minimizes disruption to the class when leaving.
- If the student has to miss the class, the student must send an email to let instructor know before class and explain the reason.
- If the student is sick and contagious, the student should not come to the class and risk getting others sick.
- If the student miss an exam due to this reason, a make up may be given. However students shall not abuse the trust - if the student appears to be sick very often then the student may be asked to present evidence such as doctor notes to the instructor.

Student responsibilities:

Each student is responsible for the successful completion and submission of all assignments and projects. Corrupted files or incomplete submission will not be credited. Students are also responsible for keeping a backup copy of each submission.

The instructor will not review your assignments or projects before grading for the entire class to ensure fairness. The instructor will, however, help you understand the expectations and clarify the requirements. Spot assessments will help you to outline questions and receive pre-due date feedback.

The instructor will not debug assignments or projects for individual student. The instructor will, however, help you gain knowledge and skills in analysis and design, problem solving, coding, testing and debugging, and answer specific questions about course topics. Make sure you have spent significant and reasonable amount of time and effort in research and working on your own before asking help.

Turnitin: Students written assignments may be checked through Turnitin.com for plagiarism detection.

Team Work
In cases where team work is assigned, a log of project delegations will be kept so to track individual contributions. For deficient projects, each student will receive an individual grade, according to contribution.

10. University Policies

Students with Disabilities: Upon identifying themselves to the instructor and the university, students with disabilities will receive reasonable accommodation for learning and evaluation. For more information, contact Services to Students with Disabilities at http://dsa.csupomona.edu/drc/.

Academic Integrity: Students should understand or seek clarification about expectations for academic integrity in this course (including no cheating, plagiarism, or inappropriate collaboration); neither give nor receive unauthorized aid on examinations or other course work that is used by the instructor as the basis of grading; take responsibility to monitor academic dishonesty in any form and to report it to the instructor or other appropriate official for action.

Cheating and Plagiarism: Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit; such acts also include assisting another student to do so. Typically, such acts occur in relation to examinations. However, it is the intent of this definition that the term 'cheating' not be limited to examination situations only, but that it include any and all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means. Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material (i.e., their intellectual property) so used as one's own work. Penalties for cheating and plagiarism range from a 0 or F on a particular assignment, through an F for the course, to expulsion from the university.

Computing Resources: At Cal Poly Pomona, computers and communications links to remote resources are recognized as being integral to the education and research experience. Every student is required to have his/her own laptop/computer or have other access to a computer with all the recommended software for this course. Find out more about how to access to the university's information resources from Information Technology Services.

11. Tentative Course Schedule

Week #	Topic	Deliverable
1	javascript 1: language fundamentals and the DOM. Using external libraries, basics of internet databases (AWS DynamoDB) and designing access policies for basic internet security in the cloud. Introduction to ASP.NET.	
2	javascript 2: collections, objects and AJAX. Uploading files via http, querying databases over secure connections. Fundamentals of working with NoSQL databases in the cloud, with javascript and OAuth	
3	javascript 3: JQuery and Cookie management. Integrating secure data transfer with the DOM	assessment 1
4	html 5, css 1: fundamentals of markup and CSS.	A1
5	html 5, css 2: bootstrap and the adaptive web, hosting basics/AWS S3 websites. OAuth and third party authentication.	
6	javascript 4: Forms and Interfaces.	assessment 2, mid term
7	project work time. Integrating Visual Studio into the responsive design workflow. ASP scripting.	A2
8	Project Iteration. Using ASP.NET to interact with Microsoft data sources.	
9	Project Iteration. Integrating server-side ASP.NET. Combined usage of javascript in client-side interfaces. Discussion on User Experience design	assessment 3
10	Project Iteration. Finalization of a portfolio project involving ASP.NET and other web technologies	A3
11	finals	final exam TBA