Objective
This course is intended to give experienced web developers practical industry theory, skills, and experience. Students will build websites for actual clients. They will work in teams with assigned roles, developing the site throughout one semester and following the traditional development stages and cycles.

Concepts
Students will be taught important development theory including: methodologies and frameworks; project planning and resource management; project roles and collaboration; information architecture; applied database design and implementation; user interface design and testing; version control; quality assurance; testing and debugging; documentation; and migration and updating projects.

Prerequisites
Upper division ITP Web courses or equivalent experience.

Instructor
Yuanbo Wang

Contact
yuanbo@usc.edu
OHE530A

Office Hours
Thursdays 12pm – 2pm
Please make an appointment ahead of time.

TA
Dongyang Chen (dongyanc@usc.edu)

Grader
Cristian Hernandez (cbhernan@usc.edu)

Lecture and Lab
Thursdays 5 – 8:50 pm

Website
http://webdev.usc.edu/itp460

Required Textbooks
Pro Web Project Management: Justin Emond & Chris Steins, 2011
**Grading**
The following percentage breakdown will be used in determining the grade for the course.

- Individual Assignments: 10%
- Group Assignments: 25%
- Labs and Attendance: 20%
- Milestones: 20%
- Individual Contributions: 25%

**Total**: 100%

**Grading Scale**
The following shows the grading scale to be used to determine the letter grade.

- A: 100-93
- A-: 92-90
- B+: 89-87
- B: 86-83
- B-: 82-80
- C+: 79-77
- C: 76-73
- C-: 72-70
- D+: 69-67
- D: 66-63
- F: 62 or below

**Policies**
Due dates and requirements for all Labs and Assignments will be posted on the course site. Students will “post” their work to their USC web space as defined on the course site.

The course will have both individual and group assignments. Labs and assignments will often be due at different times of the week. It is each student’s responsibility to keep track of due dates and post work on time as specified on the course site, even if they miss class. Work turned in late will lose 10% credit per day and late work is not accepted after two weeks past the due date. To receive credit for late work you MUST email the grader that you posted a lab or assignment after the due date or you will not receive credit.

Attendance is very important in this course. An attendance sheet will be circulated each lecture. You must sign in for lecture to receive lecture attendance credit. Just as in an actual development firm, missing sessions and meetings will have negative consequences.

**IT Help**
Hours of Service: 8AM-9PM; Phone: 213-740-0517; Email: engrhelp@usc.edu
Incomplete and Missing Grades
Excerpts for this section have been taken from the University Grading Handbook, located at http://www.usc.edu/dept/ARR/grades/gradinghandbook/index.html. Please see the link for more details on this and any other grading concerns.

A grade of Missing Grade (MG) “should only be assigned in unique or unusual situations... for those cases in which a student does not complete work for the course before the semester ends. All missing grades must be resolved by the instructor through the Correction of Grade Process. One calendar year is allowed to resolve a MG. If an MG is not resolved [within] one year the grade is changed to [Unofficial Withdrawal] UW and will be calculated into the grade point average a zero grade points.

A grade of Incomplete (IN) “is assigned when work is no completed because of documented illness or other ‘emergency’ occurring after the twelfth week of the semester (or 12th week equivalency for any course scheduled for less than 15 weeks).”

Academic Integrity
USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. Scampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: http://www.usc.edu/dept/publications/SCAMPUS/gov/. Students will be referred to the Office of Student Judicial Affairs and Community Standards (SJACS) for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: http://www.usc.edu/student-affairs/SJACS/.

If the instructor, a grader, or a lab assistant suspects you of academic dishonesty, it has to be reported to SJACS. Do not share lab assignments with another student. Do not submit another student’s work as your own. Do not look at other students’ papers during exams. Do not leave the room during an exam. Do not cheat! As Trojans, we are faithful, scholarly, skillful, courageous, and ambitious.

Students with Disabilities
Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to your course instructor (or TA) as early in the semester as possible. If you need accommodations for an exam, the form needs to be given to the instructor at least two weeks before the exam.

DSP is located in STU 301 and is open from 8:30am to 5:00pm, Monday through Friday. Contact info: 213-740-0776 (Phone), 213-740-6948 (TDD only), 213-740-8216 (FAX), ability@usc.edu, http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html.

Emergency Preparedness/Course Continuity in a Crisis
In case of emergency, when travel to campus is difficult, if not impossible, USC executive leadership will announce a digital way for instructors to teach students in their residence halls or homes using a combination of the Blackboard LMS (Learning Management System), teleconferencing, and other technologies. Instructors should be prepared to assign students a “Plan B” assignment that can be completed ‘at a distance.’ For additional information about maintaining your classes in an emergency, please access: http://cst.usc.edu/services/emergencyprep.html
Web Application Project
ITP460 (4 units)

Course Outline

Week 1        Aug 28    Course introduction
               Project life cycle, roles, student backgrounds, client proposals
               Reading: Ch 1
               Student background questionnaire – I (Due 8/30)

Week 2        Sep 4     Project definition, scope, planning, core documentation
               Project management fundamentals, Client interaction, meetings
               Client research - I (Due 9/8)
               Client questionnaire - G (Due 9/11)
               Preliminary creative brief - G (Due 9/11)
               Reading: Ch 2, 3, 5

Week 3        Sep 11    Client meetings
               Final Creative brief - G (Due 9/15)
               Site map & primary paths - G (Due 9/15 at noon)
               Preliminary planning document - G (Due 9/18)
               Technical requirements (first draft) - G (Due 9/18)
               Reading: Ch 4, 6

Week 4        Sep 18    Designing, creative concepts, comps, wireframing
               Information Architecture – (Invisionapp)
               Initial navigation(s) & wireframes - G (Due 9/25)
               Creative concept - I (Due 9/21 at noon)
               Final creative concepts - G (Due 9/25)

Week 5        Sep 25    Data structures
               Client design meeting
               Workflow storyboards - G (Due 9/31)
               Final navigation(s) & detailed sitemap - G (Due 10/2)
               Data Structures/Database design - I (Due 10/2)
               Design Styleguide Comp – G (Due 10/2)
               Initial site content - G (Due 10/9)
               Reading: Ch 7

Week 6        Oct 02    HTML & CSS style guides, CSS architecture
               Version control theory and workflows, Git & Github
               Final technical requirements document - G (Due 10/6)
               Updated planning document - G (Due 10/9)
               HTML and code style guidelines – G (Due 10/9)
               Design Document, CSS styleguide - G (Due 10/9)
Project repository setup + README – G (Due 10/9)
Project repository commit – I (Due 10/9)
Milestone 1: Database/Data Structures - G (Due 10/13)
Milestone 2: Site Prototype - G (Due 10/23)
Reading: Coding style guidelines (article)

Week 7    Oct 09    Usability
Maintainable JavaScript
Automated documentation
JavaScript style guide and documentation – G (Due 10/16)

Week 8    Oct 16    TBA
Reading: Ch 8

Week 9    Oct 23    Web performance optimization / best practices
Reading: web article/video
Milestone 3: Technical Build (Due 11/13)

Week 10   Oct 30    Automated project builds and deployment
Reading: Ch 10

Week 11   Nov  6    Web server & application security
Project security analysis – I (Due 11/13)

Week 12   Nov 13    Quality Assurance
Testing overview and terminology
Project acceptance tests – G (Due 11/24)
Q/A phase 1 - I (Due 11/20 at noon)
Q/A phase 1 report & fixes - G (Due 11/24)
Unit Q/A documentation - G (Due 11/24)
Q/A phase 2 - I (Due 12/1 at noon)
Q/A phase 2 report & fixes - G (Due 12/3)
Reading: Ch 9
Final Site: Build due on server 12/03 by 5pm

Week 13   Nov 20    TBA

Week 14   Nov 27    University Holiday
Project Marketing Plans – G (Due 12/11)

Week 15   Dec  4    Site presentations to clients
Peer evaluation - I (Due 12/11 at noon)
Site manual including migration plan & files - G (Due 12/11 at noon)