Web Application Project
ITP 460 (4 Units)
Course 31934, Spring 2015

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 4pm – 5pm
Please make an appointment ahead of time.

TA
Angela Liu (ziweiliu@usc.edu)

Grader
Dongyang Chen (dongyanc@usc.edu)

Lecture and Lab
Thursdays 5 – 7:50 pm

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

Required Textbooks
None
Grading
The following percentage breakdown will be used in determining the grade for the course.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Individual Assignments</td>
<td>10%</td>
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<tr>
<td>Group Assignments</td>
<td>25%</td>
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<tr>
<td>Labs and Attendance</td>
<td>15%</td>
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<tr>
<td>Milestones</td>
<td>20%</td>
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<tr>
<td>Individual Contributions</td>
<td>30%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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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
## Course Outline

**Week 1**  
**Jan 15**  
Course introduction  
Project life cycle, roles, student backgrounds, client proposals  
Student background questionnaire – IA (Due Tuesday 1/20)  
Project Poll – IA (Due Wednesday 1/21)

**Week 2**  
**Jan 22**  
Agile Development for Large Initiatives, how to run meetings  
Initial Group meeting  
Asana Demo  
Client research - IA (Due Monday 1/26)  
Client questionnaire - GA (Due Thursday 1/29)

**Week 3**  
**Jan 29**  
Client meetings  
Sprint Development Cycle  
Poker Planning  
Project Scope – GA (Due Monday 2/2)  
Milestones/Sprints Planning - GA (Due Wednesday 2/4)  
Technology Brief – GA (Due Wednesday 2/4)

**Week 4**  
**Feb 5**  
UI/UX, Designing, creative concepts, comps, wireframing  
Git, slack and other tools setup  
Client Meeting  
SP1 Start  
Sprint Planning  
Poker Planning  
SP1: Wireframes Design – GA (Due Sunday 2/9)  
SP1: UI Guide – GA (Due Wednesday 2/11)  
SP1: Setup Environment – GA (Due Wednesday 2/11)

**Week 5**  
**Feb 12**  
HTML & CSS style guides, CSS architecture  
SP1 Cont.  
Design Review  
SP1: Git Commit – IA (Due Monday 2/16)  
SP1: QA/Test environment setup – GA (Due Wednesday 2/18)  
HTML and code style guidelines – GA (Due Wednesday 2/18)

**Week 6**  
**Feb 19**  
Guest lecture – Best practices in Sprint development  
Client Meeting  
SP1: Product Review  
SP2 Start  
Sprint Planning  
Poker Planning  
Updated Milestones Planning - GA (Due Monday 2/23)
SP2: Site Design – GA (Due Sunday 2/22)

Week 7  Feb 26  Data structures/ Database Designs
SP2 Cont.  Design Review
SP2: Functionality Build – Milestone1 (Due Wednesday 3/4)
SP2: QA Report1 – GA (Due Wednesday 3/4)

Week 8  Mar 5  Usability
Maintainable JavaScript
Automated documentation
Client Meeting
SP2: Product Review
SP3 Start  Sprint Planning
Poker Planning
SP3: Site Design – GA (Due Sunday 3/8)

Week 9  Mar 12  Web performance optimization / best practices
SP3 Cont.  Design Review
SP3: Functionality Build – Milestone2 (Due Wednesday 3/18)
SP3: QA Report2 – GA (Due Wednesday 3/18)

Week 10  Mar 19  Spring Break

Week 10  Mar 26  Web server & application security
Client Meeting
SP3: Product Review
SP4 Start  Sprint Planning
Poker Planning
SP4: Site Design – GA (Due Sunday 3/29)

Week 11  Apr 2  Quality Assurance
Testing overview and terminology
SP4 Cont.  Design Review
SP4: Functionality Build – Milestone3 (Due Wednesday 4/8)
SP4: QA Report3 – GA (Due Wednesday 4/8)
Project security analysis – I (Due Wednesday 4/8)

Week 12  Apr 9  Product Design Theory
Client Meeting
SP4: Product Review
SP5 Start  Sprint Planning
Poker Planning
SP5: Site Design – GA (Due Sunday 4/12)

Week 13  Apr 16  Automated project builds and deployment
Cloud Server Structure & Technology
SP5 Cont.  Design Review
SP5: Functionality Build – Milestone 4 (Due Wednesday 4/22)
SP5: QA Report 4 – GA (Due Wednesday 4/22)
Presentation – GA (Due Wednesday 4/22)

<table>
<thead>
<tr>
<th>Week 14</th>
<th>Apr 23</th>
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<tbody>
<tr>
<td>Client Meeting</td>
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<tr>
<td>Practice Presentation/Product Demo</td>
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<tr>
<td>SP5: Product Review</td>
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<table>
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<tr>
<th>Week 15</th>
<th>Apr 30</th>
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<tr>
<td>Site presentations to Judges</td>
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<tr>
<td>Peer evaluation - I (Due Tuesday 5/5)</td>
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<tr>
<td>Site manual including migration plan &amp; files - G (Due Tuesday 5/5)</td>
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