ITP 460: Web Application Project

Course Details: **Web Application Project**
Spring 2013, Course 31934, 4 Units

Lecture/Lab: Thursdays from 5-7:50pm

Instructor: **David Tang** *(dtang@usc.edu)*
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TA/Grader: Amanda Meixner

Office Hours: Thursdays after lecture and by appointment

Objective: This course is intended to give experienced web developers practical industry theory, skills and experience. 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. Students will work in teams through assigned roles on semester-long web projects, which they will develop from planning to site launch.

Prerequisites: HTML & CSS and at least one of the following courses:
ITP 301 (Interactive Web Development), ITP 300 (Database Web Development), ITP 404 (Developing Web Services and API's), or equivalent experience

Grading:
Participation & attendance: 15%
Assignments: 20%
Milestones: 25%
Midterm: 10%
Final Site: 30%

Final course marks are determined by standard formulas:
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% and below

Class Policies:
Students are expected to:
- Attend and participate in lecture discussions and critiques
- Attend and complete weekly lab quizzes, assignments, and projects
- Manage and complete individual class projects

Students are responsible for completing assignments and projects by stated deadlines. Most assignments will be uploaded by students to their USC Web space and linked from a class assignment page.

Assignments: It is the responsibility of the student to make sure projects and assignments are turned in on time, as this will ensure that the course project(s) won't be delayed. Make sure you follow the procedures outlined in each assignment or project. Each student will maintain their own assignment page with links to all completed work in the course. Late projects will be credited for HALF of the total points. No projects will be accepted later than *one week from the due date*. It is the responsibility of the student to contact the grader when posting late projects.

ITP Labs: Before logging onto an ITP computer, students must ensure that they have emailed or saved projects created during the class or lab session. Any work not saved will be erased after restarting the computer. ITP is not responsible for any work lost. ITP offers Open Lab use for all students enrolled in ITP classes. These open labs are held beginning the second week of classes through the last week of classes. Please contact your instructor for specific times and days for the current semester.

Academic Integrity: The use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work is unacceptable to the University. It is often difficult to distinguish between a culpable act and inadvertent behavior resulting from the nervous tension accompanying examinations. When the professor determines that a violation has occurred, appropriate action, as determined by the instructor, will be taken. Although working together is encouraged, all work claimed as yours must in fact be your own effort. Students who plagiarize the work of other students will receive zero points and possibly be referred to Student Judicial Affairs and Community Standards (SJACS). All students should read, understand, and abide by the University Student Conduct Code listed in SCampus, and available at: http://www.usc.edu/student-affairs/SJACS/nonacademicreview.html

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 as early in the semester as possible. DSP is located in STU301 and is

open 8:30 a.m. – 5 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

Texts:
- ***Required:*** *Pro Web Project Management:* Justin Emond & Chris Steins, 2011
- ***Optional:*** *Information Architecture: Blueprints for the Web,* 2nd edtion, Christina Wodtke, New Riders, 2008

Course Schedule: (G = Group, I = Individual)

Week 1: 1/17	Course introduction Project life cycle Project roles & student backgrounds Client proposals **Reading: Ch 1**

Week 2: 1/24	Project definition, scope, planning, & core documentation
	Project management fundamentals
	Client interaction & meetings
	Assignments
	    ● **Client research - I (Due 1/26 at noon)**
	    ● **Client questionnaire - G (Due 1/28 at noon)**
	    ● **Preliminary creative brief - G (Due 1/31 at noon)**
	    ● **Preliminary planning document - G (Due 2/7)**
	Reading: Ch 2, 3, 5

Week 3: 1/31	Client meetings
	Assignments
	    ● **Creative brief - G (Due 2/7)**
	    ● **Technical requirements (first draft) - G (Due 2/7)**
	    ● **Site map & primary paths - G (Due 2/7)**
	Reading: Ch 4, 6

Week 4: 2/7	Information Architecture & Usability
	Assignments
	    ● **Initial navigation & wire frames - G (Due 2/14)**
	    ● **Technical interactive storyboards - G (Due 2/14)**
	    ● **Initial site content - G (Due 2/21)**
	    ● **Database design - I (Due 2/14)**
	    ● **Creative concept - I (Due 2/18 at noon)**
	    ● **Final creative concepts - G (Due 2/21)**
	Milestone 1: Database - G (Due 2/28 at noon)

Week 5: 2/14	CSS architecture & good practices
Week 6: 2/21	Client design meetings

	Assignments • **Updated planning document - G (Due 3/7)** • **Technical requirements (final draft) - G (Due 3/7)** **Reading: Ch 7** **Reading: Coding style guidelines (article)**
Week 7: 2/28	Development workflow w/ Version Control & PaaS **Milestone 2: Site Prototype - G (Due 3/14)** **Reading: Ch 8**
Week 8: 3/7	Web performance & optimization Deployment processes **Milestone 3: Technical Build (Due 4/11)** **Reading: Ch 10**
Week 9: 3/14	Web Frameworks • Model View Controller (MVC) • Object Relational Mapping (ORM) • Unit Testing
Week 10: 3/21	Spring Break
Week 11: 3/28	Bending Wordpress • CMS overview, advantages & disadvantages • Template Hierarchy • "The Loop" • Custom fields • Custom post types w/ More Fields
Week 12: 4/4	Midterm **Milestone 4 (5/2): FINAL Build on server by 5 p.m**
Week 13: 4/11	Web server & application security
Week 14: 4/18	Quality assurance & testing **Assignments** • **Q/A phase 1 - I (Due 4/21 at noon)** • **Q/A phase 1 report & fixes - G (Due 4/25)** • **Unit Q/A documentation - G (Due 4/25)** **Reading: Ch 9**
Week 15: 4/25	*Tentative guest lecture* **Assignments** • **Q/A phase 2 - I (Due 4/27 at noon)** • **Q/A phase 2 report & fixes - G (Due 4/30 at noon)**

Week 16: 5/2	Presentations to clients
	Assignments
	    ● **Peer evaluation - I (Due 5/5 at noon)**
	    ● **Migration plan & files - G (Due 5/5 at noon)**