

Interactive Web Development

ITP 300 (3 Units)



Fall 2016
Section 31908R

Objective

In this class students will learn to build dynamic, database-driven web sites. They will learn how to structure content for Web sites in a database, and how to retrieve that data and manipulate and place it in pages.

Concepts

Students must first learn the basics of relational database management systems (RDBMS) and how to design and implement dbs. They will then learn the Structured Query Language (SQL) for communicating with databases. And students will learn and use the PHP scripting language to make SQL calls to databases and to flow those results into pages. They will also use PHP to create data interfaces, as well as to create basic conditional routines and other constructs that allow for dynamic sites. Students will use both MySQL Workbench and MySQL database platforms.

Prerequisites

ITP104 or JOUR412 or working (intermediate) knowledge of HTML and Web publishing.

Instructor	Zune Nguyen (tridungn@usc.edu)
Office Hours	TBA
Lab Assistants	TBA
Lecture / Lab	Thursdays 2:00 – 4:50 PM, KAP 107
Website	http://uscitp.com/

Grading

Grading will be based on lecture attendance and participation, lab completion, completed assignments and projects, midterm grades, and a major individual project.

Final grades will be determined as follows:

Quizzes, Assignments, and Projects	30%
Participation, Attendance, Labs	15%
Midterm Exam	20%
Final Project	35%
Total	100%

Grading Scale

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

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

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.

It is the responsibility of the student to make sure projects and assignment are turned in on time. 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 receive 10% penalty per late day. 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.

No make-up exams (except for documented medical or family emergencies) will be offered nor will there be any changes made to the Final Exam schedule.

You are required to save your labs using a USB flash drive or a website such as <http://www.dropbox.com>. You must keep a copy of all labs. You will not be able to save your work on the ITP lab computers. If available, you will be given one USB flash drive from ITP.

ITP will have open lab hours starting the second week of the semester. The open labs will not have a lab assistant for this specific class. These lab times are there in case you need extra time to complete a lab.

A roster will be passed around the room during each lecture session. Please sign-in for the appropriate week.

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 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/>.

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

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" project 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>

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Course Outline

Note: Schedule subject to change

Week 1	08/25	Course introduction and overview. Web server and content workflow.
Week 2	09/01	Database fundamentals, designing databases for web content, major db platforms. MySQL, working with MySQL Workbench.
Week 3	09/08	Introduction to Structured Query Language (SQL). Reading data with SELECT and WHERE. Views.
Week 4	09/15	SQL Review. Inserting, updating, and deleting records. Reformatting data.
Week 5	09/22	Introduction to PHP and PHPStorm. Introduction to PHP Scripting Language and basic tags.
Week 6	09/29	PHP and MySQL (mysqli). Populating pages with content from db. Looping through queries. Conditional Statements PHPMyAdmin
Week 7	10/06	Designing record interfaces. Drill-down workflow. Creating dynamic web forms to view and insert content.
Week 8	10/13	Validating data. Creating dynamic web forms to view, insert, and update content in databases. Exam preparation. Individual class projects.
Week 9	10/20	Introduction to object oriented programming. Mysqli object-oriented interface.
Week 10	10/27	Midterm Exam

Week 11	11/03	Aggregate functions, sub-queries with PHP. Paginated results. Sending emails from PHP.
Week 12	11/10	Session and client variables. Includes, re-usable code, caching, variable scoping.
Week 13	11/17	Security issues, emailing, charting.
Week 14	11/24	University Holiday – Thanksgiving Break
Week 15	12/01	PHP Data Object (PDO)
Day of Final	12/08	Final Projects Due