Database Web Development
ITP 300 (3 Units)

USC Viterbi
School of Engineering

Objective

Students will learn how to build dynamic, database-driven web sites. The course will teach how to structure website content in databases, how to retrieve and manipulate data to display on website.

Concepts

Students will learn the basics of relational database management systems (RDBMS). They will learn how to design and implement MySQL databases using MySQL Workbench and other MySQL database platforms. Students will then learn Structured Query Language (SQL) and PHP scripting language to integrate database calls into dynamic web pages.

Prerequisites

ITP 301 or intermediate knowledge of HTML, CSS, and JavaScript.

Instructor

Zune Nguyen

Contact

zune@usc.edu

Office Hours

See course website

Lecture and Lab

Tuesday & Thursday, 12:30pm - 1:50pm, THH 107

Website

http://itpwebdev.com/

Grading

The following percentage breakdown will be used in determining the grade for the course.

Attendance & Participation	10%
Assignments	30%
Labs	10%
Midterm Exam	20%
Final Project	30%
Total	100%

Grading Scale

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

A	93% or up
A-	90% - 92.99%
B+	87% - 89.99%
B	83% - 86.99%
B-	80% - 82.99%
C+	77% - 79.99%
C	73% - 76.99%
C-	70% - 72.99%
D+	67% - 69.99%
D	65% - 66.99%
F	64.99% or below

Policies

Exams
No make-up exams (except for documented emergencies) will be offered.

Attendance
Lecture attendance is mandatory; you can miss <u>one</u> lecture without losing attendance credit.

Late Assignments
10% per day penalty is applied for late assignments. No submissions are accepted 4 days after due date. <u>To receive a grade, you must notify the grader once your late assignment is submitted.</u>

Late Labs
No late lab submissions are accepted.

Grade Corrections
Any questions or concerns regarding grades must be addressed within 7 days after grades are posted on Blackboard. No changes to any grades will be made after 7 days.

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 not 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)."

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.

Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism - presenting someone else's ideas as your own, either verbatim or recast in your own words - is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct/.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu/ or to the *Department of Public Safety* http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us. This is important for the safety whole USC community. Another member of the university community - such as a friend, classmate, advisor, or faculty member - can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men*

http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* http://dornsife.usc.edu/ali, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* http://emergency.usc.edu/ will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

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Course Outline
Subject to change throughout the semester

Week	Lecture	Lab	Assignment
1	Course Overview, Content Workflow	L1: MySQL Workbench, cPanel, Student Page	
2	Database Basics, Designing Databases	L2: Simple Film Database Design	A1: Football Schedule Database Design
3	Intro to SQL, Retrieving data from DB	L3: Database Import, SELECT SQL Statements	A2: SELECT SQL Statements
4	Data manipulation in SQL	L4: MAMP, SQL Statements	A3: Full SQL Statements
5	Intro to PHP	L5: PHP Page	A4: PHP Form Output
6	PHP MySQLi	L6: Football Schedule Search Results	A5: DVD Search Page
7	**CR**UD Part 1	L7: Football Schedule Insert Pages	A6: DVD Insert, Detail Pages
8	CR**UD** Part 2	L8: Football Schedule Update, Delete Page	A7: DVD Update, Delete Pages
9	**Midterm Exam (Tue & Thu)**		
10	Include, Require, Constants, Pagination	L9: Final Project Database Design	A8: Final Project Proposal Final Project Assigned
11	Sessions, Cookies	L10: Final Project Homepage Wireframe	A9: Final Project Homepage
12	Membership System, Sending emails from PHP	L11: Contact Page w/ Email Confirmation	A10: Final Project Front-End Pages

13	AJAX	L12: Single-Page DVD Search
14	cURL, REST APIs	
15	Intro to Web Frameworks, Laravel	
16 (Finals Day)	Final Project Presentations	**Final Project Due**