ITP 300: Database Web Development

Course:	**Database Web Development** (Monday section) *http://webdev.usc.edu/itp300m* *Fall 2012* *Course 32031* *3 Units*
Lecture/Lab:	*Mondays* from 2 – 4:50 p.m. in KAP267
Instructor:	**Patrick Dent** OHE530D *dent@usc.edu* *(213) 821-1400*
Office Hours:	*Mondays 12:30 – 2 p.m.* *Tuesdays 12:30 – 2 p.m.* *Wednesdays 12:30 – 2 p.m.* *(Please make appointment when possible)*
Grader:	Zune Nguyen < tridungn@usc.edu>
Prerequisites:	ITP104 or JOUR412 or working (intermediate) knowledge of HTML and Web publishing.
Objectives and: **Concepts**	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. 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 MS Access and MySql database platforms.

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

Final grades will be determined as follows:
Quizzes, Assignments and Projects:	**30%**
Class Participation. Attendance and Lab Exercises:	**15%**
Examination:	**20%**
Individual Major Project:	**35%**

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 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 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 word 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 to me a 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 (31) 740-0776.

Texts:

Teach Yourself SQL in 10 Minutes, *Ben Forta*, SAMS, *2003*. **(recommended)**

Database Web Development (Monday section)
ITP300 (3 units)

Course Overview:

Week 1	Aug 27	Course introduction and overview, Web server and content workflow.
Week 2	Sep 03	*University Holiday*
Week 3	Sep 10	Database fundamentals, designing databases for Web content, major db platforms, working with Access, mqsql. **Project:** DB schema (due W4 on 9/17)
Week 4	Sep 17	Introduction to Structured Query Language, Reading data with SELECT and WHERE, Views. **Project:** SQL statements pt 1 (due W5 on 9/24)
Week 5	Sep 24	SQL Review. Inserting, updating and deleting records, Reformatting data **Project:** RVS db schema. SQL statements pt 2 (due W6 on 10/1)
Week 6	Oct 01	Introduction to PHP and DW. Setting up datasources. Introduction to PHP Scripting Language and basic tags. *Lab:* Assignment page (due W7 on 10/8) **Project:** Sports DB (due W7 on 10/8)
Week 7	Oct 08	Submitting SQL to ODBC databases through php. Populating pages with content from databases. Looping through queries. Conditional statements. **Project:** Displaying DB queries (due W8 on 10/15) **Project:** Major project proposal (due W8 on 10/15)
Week 8	Oct 15	PHP and mySql. Creating dynamicWeb forms to view and insert content **Project:** Dynamic forms, adding data (due W9 on 10/22)
Week 9	Oct 22	Designing record interfaces. Drill-down workflow Creating dynamic Web forms to view, insert and update content in databases. **Project:** Schedule add, edit and delete (due W10 on 10/29)

Week 10	Oct 29	Validating data. Exam preparation.
		Individual class projects.
		Lab: Practice exam (due W11 on 11/5)
		Lab: Data validation (due W12 on 11/12)
Week 11	Nov 05	**Examinations**
Week 12	Nov 12	Aggregate functions. sub-queries with php.
		Lab: SQL aggregate and sub-queries (due W13 on 11/19)
Week 13	Nov 19	Session and client variables. Includes. Re-usable code.
		Caching. Variable scoping. TBA
		Lab: Login routine (due W14 on 11/26)
Week 14	Nov 26	Security issues. Emailing. Charting. TBA.
Week 15	Dec 03	Development issues. Hosting. TBA
	Dec 07	**Major projects posted by 6 p.m. to assignment page**
	Dec 17	Student Presentations of Major Projects