

**SLIS 5717**  
**Dynamic WWW Control Structures**

**Instructor**

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**Class Meetings and Website**

This is a blended course. We will have three meetings in Denton  
Location: Information Science Building, Room 203  
Dates & Time:       February 2 from 9 am to 5:00 pm  
                          February 16 from 9 am to 5:00 pm  
                          March 29 from 9 am to 5:00 pm

The course will have a website in Vista. The website will be available to students at the first day of the semester

**Office Hours**

Students are welcomed to discuss concerns and questions regarding the class during office hours. You can also send emails to the instructor or the TA at anytime.

Date & Time:        Tuesday 9 am -Noon  
Location:           Information Science Building, Room 214  
Phone:               940-369-8393

**Course Description**

This course focuses on issues relating to database-driven Web systems design and implementation. Knowledge about Dynamic Web Page Design & Development, Information Architecture, and Web Usability Testing will be discussed and integrated to construct real-world dynamic Web applications. Students will develop thorough theoretical understanding of database-driven Web systems and related issues, and obtain hands-on experience on building dynamic Web applications such as Online Survey Systems and Information Management Systems for libraries, museums, bookstores, and/or other information organizations.

**Course Goals & Objectives**

Students will develop theoretical understanding of the basic concepts and challenges of database design and database-driven Web systems. In the meantime, students will gain knowledge on Web techniques and hands-on experience on designing and implementing dynamic, interactive web sites.

Upon completion of this course, students should have achieved following objectives:

- 1) Master principles of database-driven Web systems and procedures of database-driven Web system design;
- 2) Identify applications of database-driven Web system in the field of Library and Information Sciences, such as digital libraries, text retrieval, and image retrieval systems;
- 3) Convert conceptual database models to operational Web database systems;
- 4) Understand and apply SQL (structured query language) to insert, modify, and query the data in a Web database system;
- 5) Design and implement online survey systems using PHP and MySQL;
- 6) Design and implement Information Management Systems for libraries, museums, bookstores, and/or other information organizations using PHP and MySQL;
- 7) Document and report database-driven Web systems.

**To achieve the above learning objectives, students enrolled in this class are expected to study 9 - 15 hours per week on this course.**

### **Prerequisites**

Students should have basic knowledge and skills in Website authoring using HTML, data modeling and database design, and computer programming. Following two courses are the prerequisites:

SLIS 5707: Data Modeling for Information Professionals  
SLIS 5716 Web Administration for Information Professionals

If you have not taken SLIS 5716, but had written computer programs in any language such as Basic, C, Perl, JavaScript, Java, FORTRAN, or COBOL before, you do not need to meet the second prerequisite requirement in order to take this course. Otherwise, please talk to the instructor before registration.

### **Textbooks, Reference Materials, Readings & Course Content**

The textbook we used is:

Welling, Luck & Thomson, Laura. (2005). *PHP and MySQL Web Development*. Third Edition. Sams Publishing, Indianapolis, Indiana. **ISBN: 0672326728** (Available at Amazon.com and UNT bookstore).

**The new edition is supposed to be available after Feb. 22, 2008. But we will use this edition for Spring 2008.**

#### **Online Reference Materials about SQL:**

SQL Tutorial. <http://www.w3schools.com/sql/default.asp>  
MySQL Reference Manual. <http://dev.mysql.com/doc/>

Some lessons include specified readings that help students to understand important contents. The readings will be provided in the lessons. The class also developed an MySQL tutorial, which will be announced in Vista class Website.

The content of the course is organized into **12 lessons**. Please reference **Table 1. Course Lessons**

## Assessment

A student's grade is composed of following:

*Class Participation (10%)*

*Assignments (30%)*

*Quiz (10%)*

*Project One: Online Survey System (20%)*

*Team Project (30%)*

The UNT scale for grading is as follows:

A = 90- 100;

B = 80-89;

C = 70- 79;

D = 60-69;

F = 59 and below

- **Class participation (10%)**

The grade for class participation consists of on-campus class attendance, team project and online class discussion involvement. Students are expected to attend all the on-campus class meetings, and actively participate in team activities and online discussion. Absence from the on-campus class meetings without acknowledgement from the instructor in advance, or lack of team project and online class discussion participation (You are required to have at least 3 significant postings/answers to questions provided in the course modules) will receive a lower class participation score. The arrangement of the on-campus class meeting is presented in **Table 2. Face-to-Face Class Meeting Agenda**.

- **Assignments (30%)**

The class will have **THREE** assignments which are designed to help students understand important concepts and gain hands-on experience in Web database design and implementation. Assignments should be typewritten and diagrams should be drawn using graphics software packages.

Turn in your assignments by submitting them to the drop boxes setup in the Vista class website by the date specified in **Table 3. Recommended Study Schedule**. If an emergency arises which prevents you from submitting your assignments, you should contact the instructor and the TA as soon as possible before the due date. Late work without the permission of the instructor will receive a grade with a 10% penalty per day after the due date.

- **Quiz (10%)**

There will be a quiz for this course near the end of the semester. The quiz will include 30 multiple-choice questions covering content of all 12 lessons. The quiz will be released at the Vista class website. Students can take the quiz anytime at home during the week that the quiz questions are available. Once the quiz is opened, you have 45 minutes to complete the quiz and submit the result. The week that the quiz questions are available is specified in **Table 3. Recommended Study Schedule**.

- **Project One: Online Survey System (20%):** (Presentation: 5%; System and Report: 15%)

Students are required to complete two projects in this class. Project One is an individual project. The purpose is to develop an online survey system using database-driven technology. Students are required to work on this project individually. The specific

requirements and/or grading details about this project will be discussed in the face-to-face class meeting specified in **Table 2. Face-to-Face Class Meeting Agenda.**

- **Team Project (30%)** (Presentation: 10%; Final System and Report: 20%)  
The purpose of the team project is to cultivate team collaboration in designing and developing database-driven Web systems. Students are required to develop an information management system which can be used for a particular information organization, such as a library, a museum, or a bookstore. The project teams will be formed at the first class meeting. A project team should include no more than four people. Students in a team should be responsible for coordinating the work themselves. Each team member will receive an identical grade for the project. Several team project topics will be suggested by the instructor. A team can select its topic from the suggested topics, or choose to work on a topic that members are interested in. The team project can only be carried out after the instructor approves your project proposal. A final team project report and online project presentation needs to be submitted at the specified due date near the end of the semester. The specific requirements and/or grading details about the proposal, the presentation, and the final team project report will be discussed at the last F2f meeting as specified in **Table 2. Face-to-Face Class Meeting Agenda.**

### **Academic Misconduct**

The School of Library and Information Sciences, University of North Texas has passed an "Academic Misconduct Policy" on April 15, 2005. All students should have signed the form "Student Acknowledgement of Academic Misconduct Policy" prior to enrollment in their SLIS course or as part of their application to the School. Below are extracts from the policy for your convenience.

The School of Library and Information Sciences (SLIS) expects all students to demonstrate both academic rigor and academic integrity. The purpose of this policy is to inform SLIS students of their responsibilities regarding the University of North Texas (UNT) Code of Student Conduct and Discipline and the procedures enforced by SLIS for cases of misconduct. The SLIS Academic Misconduct Policy is derived from the UNT Code, and some text in the SLIS policy is based on text in the Code.

The two categories of most relevance to SLIS are cheating and plagiarism. The UNT Code of Student Conduct and Discipline defines these in its categories of misconduct:

#### **A. Acts of Dishonesty**, including but not limited to:

1. **Academic dishonesty - cheating.** The term "cheating" includes, but is not limited to:
  - (a) use of any unauthorized assistance in taking quizzes, tests, or examinations;
  - (b) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
  - (c) the acquisition, without permission, of tests, notes or other academic material belonging to a faculty or staff member of the university;
  - (d) dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s).
  - (e) any other act designed to give a student an unfair advantage.
2. **Academic dishonesty – plagiarism.** The term "plagiarism" includes, but is not limited to:

- (a) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgement and
- (b) the knowing or negligent unacknowledged use of materials prepared by another person or by an agency engaged in the selling of term papers or other academic materials.

To address problems of academic integrity, SLIS has zero tolerance for violations of the SLIS Academic Misconduct Policy. The following apply:

- The SLIS Academic Misconduct Policy applies to any work submitted for SLIS courses or degree requirements, including the Capstone Experience.
- SLIS will retain students' signed statements acknowledging their understanding of the SLIS Academic Misconduct Policy. SLIS instructors will not accept students' claims that they were unaware of SLIS and UNT policies, including definitions of forms of academic misconduct.
- SLIS instructors will follow UNT regulations for reporting suspected violations to UNT, imposing academic sanctions, and recording sanctions for confirmed violations.
- An academic sanction is a penalty imposed on a student for academic misconduct. Sanctions may range from reduction of a test or assignment grade to revocation of an academic degree.
- SLIS instructors retain the right to determine specific sanctions for their courses and to set additional policies and procedures that do not conflict with SLIS or UNT policies.
- Students who have received academic sanctions are not eligible for SLIS awards, honors, or other benefits.

### **Americans with Disabilities Act Compliance Statement**

The School of Library and Information Sciences, University of North Texas is committed to full academic access for all qualified students, including those with disabilities. In keeping with this commitment and in order to facilitate equality of educational access, faculty members in the School of Library and Information Sciences will make reasonable accommodations for qualified students with a disability, such as appropriate adjustments to the classroom environment and the teaching, testing, or learning methodologies when doing so does not fundamentally alter the course.

If you have a disability, it is your responsibility to obtain verifying information from the Office of Disability Accommodation (ODA) and to inform me of your need for an accommodation. Requests for accommodation must be given to me no later than the first week of classes for students registered with the ODA as of the beginning of the current semester. If you register with the ODA after the first week of classes, your accommodation requests will be considered after this deadline.

Grades assigned before an accommodation is provided will not be changed. Information about how to obtain academic accommodations can be found in UNT Policy 18.1.14, at [www.unt.edu/oda](http://www.unt.edu/oda), and by visiting the ODA in Room 321 of the University Union. You also may call the ODA at 940.565.4323.

**See next pages for: Tables about course modules, face-to-face meeting agenda, and the recommended study schedule.**

**Table 1. Course Lessons**

Lesson	Content	Release Date	Reading
1	Introduction to database-driven Web systems	Jan. 14	Specified readings
2	HTML and PHP basics	Jan. 14	Chapter 1
3	PHP Strings and Arrays	Jan. 14	Chapter 3
4	Web database system design and development	Jan. 22	Specified readings Chapter 8
5	SQL and MySQL basics	Jan. 22	Chapters 9, 10
6	Simple Dynamic Web pages	Jan. 28	Chapter 11
7	PHP string manipulation and regular expression	Jan. 28	Chapter 4
8	Complex Dynamic Web pages	Feb. 18	Chapter 5, 7
9	Database security and implementation	Feb. 18	Chapter 15, 16, 22
10	Large Web database systems	Feb. 18	Chapters 24, 28
11	Web programming skills	March 24	Specified readings
12	Related concepts and practice	March 24	Specified readings

**Table 2. Face-to-Face Class Meeting Agenda**

Date	Time	Content	Activities
February 2	9 am - Noon	<ul style="list-style-type: none"> <li>Introduction to web database systems</li> <li>Web architecture</li> <li>PHP basics</li> </ul>	<ul style="list-style-type: none"> <li>PHP individual Exercise</li> <li>.</li> </ul>
February 2	1pm - 5:00 pm	<ul style="list-style-type: none"> <li>PHP basics (cont.)</li> <li>Web database system design</li> </ul>	<ul style="list-style-type: none"> <li>Team Formation</li> <li>Group discussion</li> <li>Exercise</li> </ul>
February 16	9 am - Noon	<ul style="list-style-type: none"> <li>MySQL basics</li> <li>Simple dynamic web pages</li> </ul>	<ul style="list-style-type: none"> <li>MySQL individual Exercise</li> </ul>
February 16	1pm - 5:00 pm	<ul style="list-style-type: none"> <li>PHP String Manipulation Functions &amp; regular expression</li> <li>Project One Discussion</li> </ul>	<ul style="list-style-type: none"> <li>Group exercise</li> <li>Q&amp;A for Project One</li> </ul>
March 29	9 am - Noon	<ul style="list-style-type: none"> <li>Project One Report</li> <li>Complex Dynamic Web pages</li> <li>Database security and implementation</li> </ul>	<ul style="list-style-type: none"> <li>Project One Presentation</li> </ul>
March 29	1pm - 5:00 pm	<ul style="list-style-type: none"> <li>Large Web database systems</li> <li>Team Project Proposal Report</li> </ul>	<ul style="list-style-type: none"> <li>Team activities</li> </ul>

**Table 3. Recommended Study Schedule**

Week	Date	Module	What's Due
1	Jan. 14 - 20	Start Here Syllabus Lesson 1	<ul style="list-style-type: none"> <li>• Class Survey</li> <li>• Self-introduction</li> </ul>
2	Jan. 21 -27	Lesson 2	
3	Jan. 28 – Feb. 3 (F2F Meeting: Feb. 2)	Lesson 3	
4	Feb.4 - 10	Lesson 4	Assignment One (Feb. 8 Midnight)
5	Feb. 11 – 17 (F2F Meeting: Feb. 16)	Lesson 5, 6, and 7	
6	Feb. 18 – 24	Lessons 5, 6, 7 cont.	
7	Feb. 25 – Mar. 2	Lessons 5, 6, 7 cont.	Assignment Two (Feb. 22 Midnight)
8	Mar. 3 - 09	Lesson 8	
9	Mar. 10 - 16	Lesson 8, project one, team project proposal	Term project proposal (March 14 Midnight)
10	Mar. 17 - 23	<b>Spring Vacation</b>	
11	Mar. 24 –30 (F2F Meeting: March 29)	Lessons 9 and 10	Project One (March 29 Midnight)
12	Mar. 31 - April 6	Lessons 9 and 10 cont.	
13	April 7 - 13	Lessons 9 and 10 cont.	Assignment Three (April Midnight)
14	April 14 - 20	Lesson 11	
15	April 21 - 27	Lesson 12	Quiz ( Released April 21 – 27)
16	April 28 – May 4	Work on Team Project	Team Project and Online Team Presentation (May 4 Midnight)
17	May 09	Grades submitted to the university	