

Course Syllabus

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This course, INF 385M (unique # 28575) will enable you to:

- design database schemas for efficient data representation
- implement database schemas using MySQL
- create functional Web pages and forms using HTML
- create interactive PHP Web-pages that display information from a database and modify the content of the database
- discuss significant issues in database management and ask the right questions when working with database administrators and software designer

There are no prerequisites for this course; it is appropriate even if you've never done any programming or behind the scenes work with computers. If you do have significant, recent experience or training with programming and databases this is not the course for you. In this case I will ask you to drop the course and invite you to audit parts that you think will extend your knowledge.

While there are no prerequisites the projects you will build will require an understanding of HTML, including tables. You will also need to know how to move HTML files up to the project server. Since our time is limited we will not be covering HTML in detail in class (although we will review HTML forms). So, if you do not have a good working grasp of HTML you will be required to attend the "Bootcamp" offered by the iSchool IT group. The date for this is still being decided but will most likely be on a weekend around the third or fourth week of the semester. I will update this when we have a specific time.

The projects will not be graded on the basis of design or presentation, just functionality and database design. However, many students wish to use the projects in their portfolios, if that is the case I encourage you to make the effort in design. In this case you will also want to take the CSS bootcamp.

Professor

This course is taught by James Howison. My office is UTA 5.404. My office hours are by appointment by email: jhowison@ischool.utexas.edu. Please don't hesitate to set up a time to follow up on class material.

Class Meetings

The class meets Tuesdays 9am through 11.45am in the iSchool computing lab classroom (UTA 1.210A). You are expected to attend every class. If you cannot attend you must let me know in advance.

Computing resources

The vast majority of this class happens on the class server, so really we'll just be editing text files and uploading them from the local computers. I will be teaching using the Mac computers in the lab. This is primarily for a consistent experience for the class in the choice of text editor and uploading files to the server. You are welcome to use your own laptop or windows computer, but I won't be able to stop to help you with those.

Course Texts

Required Texts:

Churher, C. (2012). *Beginning Database Design: From Novice to Professional* (2nd ed.). Apress. [Link at Amazon.](#) http://www.amazon.com/Beginning-Database-Design-Novice-Professional/dp/1430242094/ref=sr_ob_1?s=books&ie=UTF8&qid=1346352056&sr=1-1

(Note that the first edition version is also fine.)

Forta, B. (2005). *MySQL Crash Course*. Sams. [Link at Amazon.](#) <http://www.amazon.com/MySQL-Crash-Course-Ben-Forta/dp/0672327120>

You won't need either of these for the first week (and won't need the Forta book until Week 5).

Other resources

There is an abundance of free tutorials on both MySQL and PHP available online. Some of them are good, and many assume a different level of starting knowledge than we will in this course. There are also many books available, including online through the UTexas library.

The w3schools tutorials on both [MySQL](http://www.w3schools.com/sql/) and [PHP](http://www.w3schools.com/php/) are useful and recommended. When looking at others, especially when it comes to PHP, keep in mind that there are many different ways to do the things we're going to do in class and any given tutorial might teach a

different method (which will either be great and extend your knowledge or be confusing).

An advanced reference guide for MySQL that's available online at UT is:

Reese, G., & Ebooks Corporation Limited. (2009). *MySQL Pocket Reference SQL Functions and Utilities* (2nd ed.). Sebastopol: O'Reilly Media, Inc. [UT online link \(http://www.utxa.eblib.com/patron/FullRecord.aspx?p=443454\)](http://www.utxa.eblib.com/patron/FullRecord.aspx?p=443454)

Weekly Assignments

There are assignments due weekly for this course. They are due 11.59 pm the night before class. I will not be able to grade late assignments (since we'll be covering the solutions in class). The assignments will be released on Canvas on the morning of the class after which they are due, so we'll go over the assignment and ensure everyone knows what's required. Each assignment will be turned in online, usually by uploading a PDF or Text file, and/or providing a URL to your assignment on the class server.

Project

A major portion of the course is producing a working, database backed website. You'll work through designing the data model and use cases, creating the database and creating an interface, written in PHP, that allows you to create, display, edit and delete database records. This work will be done in groups of 2 or 3 people and will unfold throughout the semester. Take a look in the Project section of the Assignments for the elements, taking you from ideas, to designs, to prototypes and finally to working projects. I encourage you to make your prototype as great as possible since trying to fit it all into the last two weeks is a recipe for stress and not meeting your own expectations.

Schedule

Below is the class schedule, including links to the assignments (those are bolded). Note that we won't have a class meeting on October 9.

Date	Day	Details	
Sep 4	Tue	Class 1: Intro and Card Exercise (https://utexas.instructure.com/calendar?event_id=551580&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d)	9am t 11:45ar
Sep 11	Tue	Class 2: Questions and ER Diagrams (https://utexas.instructure.com/calendar?event_id=551673&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d)	9am t 11:45ar
Sep 17	Mon	ER Diagram for Bookstore	due by 11:59pm
		Project Ideas	due by 11:59pm
Sep 18	Tue	Class 3: MySQL and phpmyadmin (https://utexas.instructure.com/calendar?event_id=551679&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d)	9am t 11:45ar
Sep 24	Mon	From ER to Database	due by 3pm
Sep 25	Tue	Class 4: SQL queries I (https://utexas.instructure.com/calendar?event_id=551683&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d)	9am t 11:45ar
Oct 1	Mon	Reverse engineer design and basic queries	due by 3pm
Oct 2	Tue	Class 5: SQL Queries II (https://utexas.instructure.com/calendar?event_id=551684&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d)	12am
Oct 5	Fri	Group project paragraph	due by 11:59pm
Oct 9	Tue	No Meeting (https://utexas.instructure.com/calendar?event_id=551687&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d)	9am t 11:45ar
Oct 15	Mon	Advanced Queries	due by 11:59pm
Oct 16	Tue	Class 6: Sub-queries, Indexes (https://utexas.instructure.com/calendar?event_id=551691&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d)	9am t 11:45ar

https://utexas.instructure.com/calendar?event_id=551805&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d		
Oct 22	Mon	User stories due by 11:59pm
Oct 23	Tue	Class 7: Intro to commandline and php (https://utexas.instructure.com/calendar?event_id=551759&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d) 9am t 11:45ar
Oct 29	Mon	Project Database Design due by 11:59pm
Oct 30	Tue	Class 8: PHP branching and looping (https://utexas.instructure.com/calendar?event_id=551805&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d) 9am t 11:45ar
Nov 5	Mon	Choosing a ticket due by 3pm
Nov 6	Tue	Class 9: Connecting PHP and MySQL (https://utexas.instructure.com/calendar?event_id=551808&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d) 9am t 11:45ar
Nov 12	Mon	Festival Dashboard due by 11:59pm
Nov 13	Tue	Class 10: Functions (https://utexas.instructure.com/calendar?event_id=551810&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d) 9am t 11:45ar
Nov 19	Mon	Project Site Draft due by 11:59pm
Nov 20	Tue	Class 11: Prototype Presentations (https://utexas.instructure.com/calendar?event_id=551814&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d) 9am t 11:45ar
Nov 26	Mon	Assessing Libraries due by 11:59pm
Nov 27	Tue	Class 12: Guest Lecture and Project Consulting (https://utexas.instructure.com/calendar?event_id=551818&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d) 9am t 11:45ar
Dec 3	Mon	Project Site and Report due by 11:59pm
Dec 4	Tue	Class 13: Project Presentations (https://utexas.instructure.com/calendar?event_id=551824&include_contexts=course_709836#7b2273686f77223a2267726f75705f636f757273655f373039383336227d) 9am t 11:45ar
		Project Presentation due b 9ar