INFM 718N - Web-Enabled Databases
Spring 2011 - Tentative Syllabus

Instructor: Vedat G. Diker
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E-mail: v d i k e r @um.edu
Office Hours: By appointment

Class meeting time and place:
Wednesday afternoons 6:00 PM to 8:45 PM in Hornbake 2119 (Wireless Lab)

Catalog Description:
Basic methods and tools for developing dynamic, database-driven web sites. Acquiring, installing and running web servers, database servers, and connectability applications. Developing web interfaces, and application-layer components. Prerequisite: INFM 603, LBSC 690, or equivalent.

Extended Description:
Contemporary web applications go beyond plain HTML pages, providing interfaces to dynamic databases, and adding several other key functionalities to web sites. These functionalities enrich the user experience, and facilitate porting of many information tasks to web environment. INFM 718N Web-Enabled Databases will introduce tools and methods for developing database driven web sites. The course will introduce initial steps of building a dynamic web site, such as installing and maintaining a web server and a database server, as well as developing web interfaces and client- and server-side applications that provide added functionality to the web site.

Goals:
After completing this course the student will be able to:
- Understand the basic approach and key development elements to building dynamic web sites.
- Acquire, install and maintain a web server.
- Acquire, install and maintain a database server.
- Acquire, install and maintain applications that provide connectability between different layers of the site architecture.
- Build basic web interfaces for communicating with underlying databases.
- Program basic application components that will add functionality to web sites.

Elements of the Course:

In-Class Exercises: Class sessions will follow the chapters of the textbook. We will dissect, analyze, replicate and extend the examples from the textbook. It is expected that you will bring your portable computer to class to work on the exercises. You are expected to attend all of the class sessions, unless you are sick or you have a serious emergency. Please plan your travels and other aspects of your personal and professional life accordingly. If there is an unavoidable conflict in your schedule, please inform the instructors in advance. Missing more than three sessions with documented explanation (such as illness, death in family, etc.), or more than one session without explanation will affect your grade.

Take-home Assignments: Students will work on a number of take-home assignments throughout the semester. These will generally focus on improving and extending the class examples. Students are expected to work on these assignments individually, and not receive any help from classmates or other individuals. If any of the assignment due dates is a holiday for you, please inform the instructor in advance, so an alternate due date can be set for you.

Team Project: Teams of three students will work on a semester-long project, where they will build a non-trivial web-enabled database application running on PHP and MySQL. Each group will pick a topic for their application through discussions in class, with the instructor and other groups. The work on the projects will be completed in three phases. There will be two interim submissions of the on-going work throughout the semester, which will be followed by the final submission of the finished project. The submissions will involve detailed narrative components, as well as the applications and the databases developed. The final versions of the applications are expected to perform all basic functions that would be expected from a web-enabled database application, such as reading, writing, deleting, and querying data. Further specifications will be given as the semester unfolds. Normally, all members of a given group will receive the same
grade on each project submission. However, it is possible to receive a grade that is different than your teammates due to inadequate participation.

**Individual Project:** Students will work on a semester-long individual project where they will build a small-scale, non-trivial web-enabled application running on PHP and MySQL. Students will not choose their topic, but will be assigned a common topic for the individual project. The topic and the specifications of the application will be communicated to class early in the semester. Students will replicate the entire functionality of the communicated application. The application will perform basic functions that would be expected from a web-enabled database application, such as listing, adding, editing, and deleting data. Students are expected to **work on this project individually, and not receive any help from classmates or other individuals.**

**Grading:**

*Take-home Assignments:* 30%

*Group Project:* 35%

*Individual Project:* 35%

**In-Class Participation and Attendance:** Although this component will not be added as extra points to your grade, excessive absence (missing more than three sessions with documented explanation, or more than one session without explanation,) non-participation, disruptive behavior in class, or other unwanted behavior may affect your grade negatively.

**Required Text:**


(An electronic version of this text is also available; you will need to search for an online outlet to acquire it.

I cannot guarantee a smooth and successful learning experience without the textbook.

You may also consider the previous edition of the text, at your own risk:

Other Relevant Texts:


*Head First PHP & MySQL*, Lynn Beighley and Michael Morrison, O’Reilly - ISBN: 0596006306

*Web Database Applications with PHP and MySQL*, Hugh Williams and David Lane, O’Reilly - ISBN: 0596000413

**Software:**

We will use a number of freely available open source software for this course. Specifically we will use:

- Apache web server
- PHP 5
- MySQL database server
- MySQL GUI tools 5.0 (or MySQL Workbench 5.2 or higher)

**The recommended way to acquire these components is to download a "distro" that bundles these software, such as XAMPP.** Distro installations are generally simpler, and XAMPP is recommended by the textbook that we will use, as well. XAMPP includes Apache, PHP and MySQL. You will still need to download and install the MySQL GUI Tools or MySQL Workbench separately, since that package does not come with XAMPP. Please install these software at your earliest convenience.

**Please refer to the Software page accessible through the ELMS course menu for download links and installation instructions.**

**Policy on Academic Misconduct**

Cases of academic misconduct will be referred to the Office of Student Conduct irrespective of scope and circumstances, as required by university rules and regulations. It is crucial to understand that the instructors do not have a choice of following other courses of actions in handling these cases. **There are severe consequences of academic misconduct, some of which are permanent and reflected on the student’s transcript.** For details about procedures governing such referrals and possible consequences for the student please visit [http://www.studentconduct.umd.edu/](http://www.studentconduct.umd.edu/)
University of Maryland Code of Academic Integrity:
"The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit http://www.studenthonorcouncil.umd.edu/whatis.html."

Special needs
Students with disabilities should inform the instructor of their needs at the beginning of the semester. Please also contact the Disability Support Services (301-314-7682 or http://www.counseling.umd.edu/DSS/). DSS will make arrangements with the student and the instructor to determine and implement appropriate academic accommodations. Students encountering psychological problems that hamper their course work are referred to the Counseling Center (301-314-7651 or http://www.counseling.umd.edu/) for expert help.
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Tentative Course Plan **

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<td>4 February 16</td>
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<td>7 March 09</td>
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<td>8 March 16</td>
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* This syllabus is subject to change. Please check this page frequently for updates.

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*** Other work can and will be assigned as necessary.