CS 1655: Secure Data Management and Web Applications (Spring 2013)
Department of Computer Science, University of Pittsburgh

When: Mondays & Wednesdays, 4:30 pm – 5:45 pm

Where: Room 5129, Sennott Square Building

Instructor: Prof. Alexandros Labrinidis
Email: labrinid@cs.pitt.edu
Web: http://www.cs.pitt.edu/~labrinid
Office: 6105 Sennott Square
Phone: 412-624-8843

Office hours: Monday: 3:00pm – 4:15pm
Wednesday: 3:00pm – 4:15pm

Lab Sessions: (first one will be on Thursday, January 17th)
Thursday 3:00 - 3:50pm @ 6110 Sennott Square
Friday 3:00 - 3:50pm @ 6110 Sennott Square

Graduate Teaching Assistant: Duncan Yung
Email: cs1655-staff@cs.pitt.edu
Office: 6505 Sennott Square
Phone: 412-624-8841

Office hours: TBD

Course Description: This course is the second data management course in the CS Department. As such, it has the following main objectives. First, to study topics that go beyond the traditional relational database management system framework, such as information retrieval, data mining, and data warehousing. Second, to study security-related issues as they arise in web-database environments. Third, to expose students to advanced database applications and also to related data/information management technologies (over the Web), while gaining hands-on experience.

Prerequisites: A grade of C or better in CS 441 and CS 445 is required (or permission of the instructor). Working knowledge of Perl and PHP and familiarity with Unix are assumed.

Class Web Page: http://db.cs.pitt.edu/courses/cs1655/spring2013
All handouts and class notes will be published on the class web page. You are expected to check this page frequently (at least twice a week).

Google+ Page: We will use Google+ as an authentication mechanism for posting photos of the whiteboard from every class. You will need to provide a valid Gmail account to have access to the photos.

Textbook: There is no single textbook with enough coverage of all the material that we want to discuss in this class. We will rely on online references and also on O’Reilly’s Safari Bookshelf for which the University has institutional access (i.e., you will not have to buy extra books).

Course Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Assignments &amp; Projects</td>
<td>45%</td>
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<tr>
<td>Class participation</td>
<td>5%</td>
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<tr>
<td>Midterm Exam</td>
<td>30%</td>
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<tr>
<td>Term Project</td>
<td>20%</td>
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There will be 3-4 assignments/projects, most of which will have a significant programming portion.

For both lecture and recitations, including in-class quizzes.

Wednesday, February 20th, 4:30pm – 5:45pm (SENSQ 5129)
due Friday, April 19th; Demos during finals week (multiple days)

Class Mailing List: All students must subscribe to the class mailing list, so that they receive time-sensitive information from the instructor and TAs. You will be automatically added to the mailing list.
Note on Email Communication:
You should send all email regarding class matters to cs1655-staff@cs.pitt.edu. Your email will go to the instructor, and the TA. If you have a confidential matter, then please email the instructor directly, but make sure to include the keyword cs1655 in the subject line of your email messages. We will make every effort to respond to all email requests within one business day at the latest. Due to spam filtering, you should always use your pitt email address when sending email and include your full name.

Grading Policy: Unless explicitly noted otherwise, the work in this course is to be done independently. Discussions with other students on the assignments should be limited to understanding the statement of the problems (except when assignments are to be done in groups in which case it is expected of members of the same group to work together). Cheating in any way, including giving your work to someone else, will result in an F for the course and a report to the appropriate University authority. Submissions that are alike in a substantive way will be considered to be cheating by ALL involved parties. Please protect yourselves by only storing your files in private directories, and by retrieving all printouts promptly.

Students are expected to abide by the Dietrich School of Arts and Sciences’ Academic Integrity code of conduct, posted at http://www.as.pitt.edu/faculty/policy/integrity.html

All assignments must be submitted electronically. Grades can be appealed up to two weeks after they have been posted; no appeals will be considered after that time.

Late Policy: A late assignment will receive a deduction of 5 points if it is up to one day past the deadline and 15 points if it is up to two days past the deadline. Assignments that are past two days late will not be accepted.

Make-up Policy: Students are expected to be present for all exams and quizzes. Make-up exams will only be given in the event of an emergency, and only if the instructor is informed in advance. Failure to notify the instructor prior to missing an exam will result in a zero for the exam.

Students with Disabilities:
If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 216 William Pitt Union, 412-648-7890 or 412-383-7355 (TTY) as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course. Their web site is http://www.drs.pitt.edu.

Religious Observances:
In order to accommodate the observance of religious holidays, students should inform the instructor (by email) of any such days that conflict with scheduled class activities within the first two weeks of the term.

Audio/Video Recording: To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student’s own private use.

Outline:
A detailed reading guide will be published on the web page, along with the class notes and additional online articles and resources. Time permitting, we will cover the following topics:

1. Data Mining / Data Warehousing
2. Information Retrieval
3. Big Data
4. Web-Database Security / Secure Coding
5. XML and its applications
6. Web Services / Data Mashups / Google Data APIs

[Last updated on January 7, 2013 at 4:00pm EST]