

# CS 1655: Secure Data Management and Web Applications (Spring 2006)

Department of Computer Science, University of Pittsburgh

**Course Reference Number (CRN): 12924**

**When:** Tuesdays & Thursdays, 6:00 pm – 7:15 pm

**Where:** Room 5129, Sennott Square Building

**Instructor:** Prof. Alexandros Labrinidis

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Web: <http://www.cs.pitt.edu/~labrinid>

Office: 6105 Sennott Square

Phone: 412-624-8843

Office hours: Tuesday: 4:00 – 6:00 pm

Thursday: 1:00 – 2:30 pm

**Graduate Teaching Assistant:** Panickos Neophytou

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Office hours: TBD (check the class web page)

**Recitation:** (first one will be on Tuesday, January 17th)

Tuesdays 7:30 - 8:20am @ 6110 Sennott Square (CRN 12925)

**Course Description:** This course is a continuation of the CS1555 (Database Management Systems) course. As such, it has the following main objectives. First, to study in more detail some of the topics that were not covered in detail in CS1555. Second, to study advanced topics that were not explored in CS1555, especially as they relate to security. Third, to expose students to advanced database applications and also to related data/information management technologies, while gaining hands-on experience.

**Prerequisites:** A grade of C or better in CS 1555 is required (or permission of the instructor). Working knowledge of **Perl** and **PHP** and familiarity with Unix are assumed. We will have a few review lectures on Perl and on PHP, and use the recitations to help students without much expertise in Perl/PHP.

**Class Web Page:** <http://db.cs.pitt.edu/courses/cs1655/spring2006>

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). The instructor's home page will also have a link to the class web page.

**Textbook:** There is no single textbook with enough coverage of all the material that we want to discuss in this class. Instead, the instructor is putting together an *Online Syllabus* with O'Reilly's SafariU service. This will give students online access to 10 complete books, some of which will also serve as reference books. The cost will be \$39.99 per person for 4 months of access, i.e., about half the typical cost of a class textbook.

**Course Grading:**

Assignments	50%	There will be 4-6 <b>assignments/projects</b> , most of which will have a significant programming portion.
<b>Exam #1</b>	25%	<b>Tuesday, February 21st</b> , 6:00pm – 7:15pm (SENSQ 5129)
<b>Exam #2</b>	25%	<b>Tuesday, April 18th</b> , 6:00pm – 7:15pm (SENSQ 5129) The second exam will cover the material that was not covered in the first exam. There will not be a final exam. There will be no classes during finals week.

**Class Mailing List:** All students must subscribe to the class mailing list, so that they receive time-sensitive information from the instructor and TA. You will be automatically added to the mailing list.

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**Note on Email Communication: (NEW - please read carefully!)**

You should **send all email** regarding class matters to **cs1655-staff@cs.pitt.edu**. Your email will go to the instructor and the graduate 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.

**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.

**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. An assignment which is more than 2 days late will be accepted *only* under special circumstances with the instructor determining the penalty in a fair manner.

**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 of any such days which conflict with scheduled class activities within the first two weeks of the term by emailing the instructor.

**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. Information Retrieval (over the Web)
2. XML and applications (e.g., RSS, bioinformatics)
3. Geographical information systems
4. Data warehousing and OLAP
5. Data mining and Data privacy
6. Database security, authorization, access control
7. Web-Database security (using PHP)
8. Web services/resource discovery

[Last updated on January 5<sup>th</sup>, 2006]