

# CS 419/519 Internet Databases

## *Syllabus, Spring, 2008*

[Dr. Stewart Shen](#)

E-mail: [shen@cs.odu.edu](mailto:shen@cs.odu.edu)

Office: ECS 3204

Office hours: Mon. Tue. and Wed.: 3:00-5:00pm

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**Registered students to enter the course, need to provide the following information to the instructor via email when the semester begins:**

- In the **subject** of the email, give exactly: **New Student for CS419/519**
- In the **content** of the email, give the following:
  - Full name and University Student ID
  - The course number and CRN for which you have registered, and the site name of the site where you registered this course

**The course material is available to registered students through the ODU Blackboard system.**

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**Special messages for Students Considering to Take the Course:**

- **This course is offered via the Internet, generally asynchronously. There are no regular class meetings.**
- This course is best for **self-motivating students who can enforce own schedules**. Many students who have taken this course thought it to be better than ordinary lecture classes and have learned a lot from this course. On the other hand, **a few preferred traditional lecture classes and did not like it.**
- This course requires the use of various servers in the CS Lab and corresponding accounts may be needed. Students not following strict instructions could suffer some difficulties unnecessarily. Students must be aware that at times, **the CS Lab servers could be out of service temporarily for various reasons**, even though we have continuously been trying to improve on the situation.
- A special message: **Oracle Forms** provided in Module 3 of this course is **totally optional** just for the benefit of those having an interest in it for reference only. Even though some course material is provided for the convenience of the students, **a student is basically on his/her own** if elect to study this subject. **The provided material on Oracle Forms may not be up-to-date.** In other words, student may just elect to ignore it.

**Additional messages for students:**

- Check the prerequisites in the syllabus below to see if you are qualified for this course.
- All **exams are proctored** and are to be taken at pre-scheduled times on campus or at the centers where you are registered for the course.
- See the course syllabus below for more details.

### Graduate Students:

Your **must** register for **CS519**. Your requirements and grading are different from CS419 for undergraduate students.

**Be sure to check [Announcements](#) before going to the course material each time.**

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## Syllabus

### Objectives

Investigating the state of art in database applications on the World Wide Web. Exploring some database management systems that are suitable for implementing database applications over the Web. Reviewing and further investigating database design methodology. Learning and applying Web programming technology and tools for database implementation on the Web. Investigating small as well as comprehensive sample Internet database application systems. Investigating human computer interface (HCI) techniques, WWW user survey results, and Web-site evaluation criteria for designing good Web database applications. Investigate some new, possibly just developing, technologies that are becoming important for the Web. Class projects are required for all and term paper is required for graduate students. Active learning is emphasized. **As part of the course revamping effort this year, additional contemporary topics and broader applications are to be included while certain older topics may be dropped.** One intention is to make the course more interdisciplinary.

### Prerequisites

Relational database experience, equivalent to that in **CS450/550**; Internet concepts, Web surfing experience including knowledge of browser functionality and concepts of frames and plugins, equivalent to **CS311/312**; and **Unix** experience including directory structure, mode control, and basic commands.

Since this course is to be offered through the Web, students should see [Old Dominion Online](#) for more requirements and additional information. If you are from outside the main campus, you need to be able to **telnet and ftp to your CS unix account**.

### CS519 Students

You must be a graduate student and your work will be expected to be done at a higher quality and will be graded against the graduate system of grading(ODU Catalog, p48). In addition to the assignments the undergraduate students are required to complete, the

graduate students will be required to do a "professional" term paper, and the term project must be at a high level of sophistication.

## Grading

Task	Undergraduate	Graduate
Assig. M1	4	3
Proj. M1	6	5
Assig. M2.1	5	4
Assig. M2.2	5	4
Proj. M2	9	7
Assig. M3.1	8	7
Term Project	18	15
Midterm Exam	20	20
Final Exam	25	25
Term Paper	N/A	10
<b>Total</b>	<b>100</b>	<b>100</b>

## Instructions on your computer accounts:

You need to have several computer accounts. First, you need an **ODU student account** allowing you to access the Blackboard system of ODU, which will lead to certain parts of this course. Second, you need a **CS student unix account**, even if you are not CS major. If this account has not been created for you, then go to the CS Lab and ask a consultant for it. Third, your **CS Oracle course account** will be generated by the department later on during the semester.

## Textbooks, On-line and Printed References

This course emphasizes **active learning** and places no limit on ambitious students with broad background as to how far to go. The course materials prepared by the instructor available via the web are the primary "**Online Textbook**" and "**Online References**". The printed books listed below are equally very useful and can be carried to anywhere and can be used any time. They are not all required for every student. They are to be used to supplement the online textbook, online references, and on-line references for this course. They should be used according to a student's background and ambition. In addition, a student is encouraged to use additional printed books to which they can have access, because not any printed book is complete and necessarily up-to-date due to the fast progresses being made in this subject. The bold-faced one is considered to be the textbook and is to be available at the university bookstore. The other ones are important reference books. They all may be available on the web, possibly at lower prices.

- **The Web Warrior Guide to Web Database Technologies**  
by Bob Leasure & James Leasure, Thomson Course Technology, 2004  
ISBN 0-619-15990-1
- N. Patwardhan, E. Siever, and S. Spainbour, PERL in a Nutshell, 2nd Ed.,  
O'Reilly, 0-596-00241-6
- Muench, Building Oracle XML Applications, O'Reilly, 1565926919
- Bates, Web Programming, Wiley, 0471496693
- Loney & Koch, Oracle8i, the Complete Reference, Osborne, 0072123648

## **On-Line References provided in the On-Line Course Material**

The on-line references given in the On-line Course Material are very useful for this course. They include real-life, commercial database application systems, tutorials on languages and tools that we are to use or can be used, WWW and database software and documentation on them, reports on research results regarding implementing good WWW systems, and many other materials useful for our purposes. Even though they together may be more than you can handle, you are still encouraged to go even further to investigate newer, better resources that are relevant to our course. On the other hand, a student should **proceed on the overall effort with proper discretion**, based on personal background, interest, and available resources. The on-line references also form an approximate outline of our course, and they are given in Schedule under a separate heading.

## **Honor Code**

The university honor code applies to all project components and examinations; while verbal discussion among individual class members is encouraged, any work turned in for a grade should be the work of the person turning the component in for credit and for this course only. Design, test data and code sharing is a violation of the honor code. Any work you turn in for credit must be your own.