

**INLS 723**  
**Database Systems II**  
**Fall 2006**

**Section:** Monday evenings, 6:00 – 8:30pm, Manning 214

**Instructor:** Dr. Robert Capra  
**Office:** Interaction Design Lab (in the Manning stacks)  
**Office Hours:** before class and by appointment  
**Email:** r<lastname> at ils dot unc dot edu

**Prerequisite(s):** INLS 623 (157) – Database Systems I

**Textbook (required):** *Fundamentals of Database Systems, Fourth Edition*  
Elmasri, R. and Navathe, S.B., Pearson Addison Wesley, ©2004.  
ISBN: 0-321-12226-7

**Textbook (optional):** *Database Management Systems, Third Edition*  
(sometimes known as “the cow book”)  
Ramakrishnan, R., and Gehrke, J., McGraw-Hill, ©2002.  
ISBN: 0072465638

**Course Webpage:** [http://www.ils.unc.edu/courses/2006\\_fall/inls723\\_001/](http://www.ils.unc.edu/courses/2006_fall/inls723_001/)

**Grade Weighting:**

Item	Weight	Due Date(s)
Current issue paper	5%	As assigned: Sept 11, 18, 25; Oct 2, 9
Current research review	5%	As assigned: Oct 16, 23, 30; Nov 6, 13
Homework	10%	Various dates
Individual DB project	15%	October 2 at the start of class
Group DB project	25%	Dec 4 at the start of class
Midterm exam	15%	Oct 16, in-class
Final exam	25%	TBA (Sat Dec 9 at 6pm??)

# 1. Course Description

From the SILS course description:

INLS 723 (258): Database Systems II

Prerequisite: INLS 623. Advanced study of database systems. Topics include database design, administration, current issues in development and use, object databases, and distributed databases. (3)

# 2. Prerequisites

- knowledge of relational theory, including normalization and referential integrity
- knowledge of basic SQL (both DML and DDL)
- knowledge of ER diagramming techniques and how to turn this into a database schema

If you've taken INLS 256 or INLS 157 (Database Systems I), these topics were covered - please come talk to me if you have not taken this course or if you have questions about the knowledge and skills listed above.

# 3. Course Objectives

- examine advanced concepts and issues in database modeling and design.
- further develop SQL knowledge and experience.
- gain practical experience with Oracle and SQL through the design and implementation of an Oracle database project.
- gain experience with Oracle development products, such as 9iDS (Oracle Forms and Reports) and SQL\*Plus.
- explore social, ethical, administrative, and policy issues surrounding databases.

# 4. Hardware and Software Requirements

You are welcome to use the SILS lab computers for this class, but if you have a laptop, feel free to bring it to class. The laptop has to be networked to access the Oracle server, but if you don't have a wireless card, they are available in the SILS library for checkout.

We will be using the following software applications for this class:

- SSH client
  - You can use PuTTY (freeware)
  - or You can download SSH secure shell from ATN
- a secure FTP client (note that SSH secure shell has an integrated secure FTP client)
- Oracle client
  - You can get this from Software Acquisition on campus: <http://software.unc.edu/>
    1. check for the SKU you'll need to get just the Oracle 9i client, and
    2. place an order at <http://software.unc.edu/>
- (Optionally) Oracle Forms and Reports, Oracle JDeveloper

The Oracle software may also be available through the SILS lab; please see me if you have questions about obtaining these.

## 5. Graded Work

Your grade will be based on a midterm test, a final exam, homework assignments, an individual DB project and a group DB project, weighted as shown on the table listed under “Grade Weighting” on the first page.

### Database Implementation Projects

Much of the practical experience you gain this semester will be “hands-on” through work on two database implementation projects (one as an individual, one as part of a small group). Details about these projects will be described throughout the semester and posted on the course web site.

### Homework

There will be small number of homework assignments throughout the semester. Homework assignments will be submitted electronically using the Blackboard system. Homework assignments submissions must be typeset using a word processor (e.g. Word), LaTeX, Tex, or a text processor resulting in neatly formatted ASCII text. No handwritten work (including scanned documents) will be accepted.

### Current issues/research review

Every student will sign up for two report presentations during the semester. These will be completed in the form of a written document and a brief (15 minute) in-class presentation. The first assignment will be a report on a current issue or topic important to database implementation, administration, or design. The second will be a review of a recent research paper from one a respected conference or journal on database issues (examples include VLDB, PODS, TODS). Part of the goal of this assignment is for you to gain confidence in being able to read and understand current database research. Details on each of these assignments will be posted on the course web site.

### Exams

There will be one mid-term and one final exam. All exams are closed-book, closed-notes.

## 6. Grading Policies

The following grade scale will be used AS A GUIDELINE (subject to any curve):

Graduate	Percentage	Undergraduate	Percentage
H	100-95%	A	100-90%
P+	94-90%	B	89-80%
P	85-89%	C	79-70%
P-	80-84%	D	69-60%
L	70-79%	F	Below 60%
F	69% and below		

This scale will be used as a GUIDELINE ONLY. The final grade scale may differ.

### Due Dates and Late Work

Each assignment will have a due date and time and will include instructions for submission. Late submissions will not be given any credit if submitted after graded assignments or solutions have been released. Typically, a late penalty of 10% per day will be applied unless prior arrangements have been made with the instructor.

### Requests for Extensions and Absences

Any request for an extension must be made, preferably by email, at least 24 hours prior to the due date. Written documentation is required for illness. If a serious illness prevents you from taking any of the tests, send your instructor an e-mail message, or a friend with a note, describing your condition before the

scheduled test. Also, to establish a valid excuse for an illness you must get a note from a physician or the University infirmary. Before missing a test for any reason, you must make every effort to discuss the problem with your instructor before the day of the test.

### **Statute of Limitations**

Any questions or complaints regarding the grading of an assignment or test must be raised within one week after the score or graded assignment is made available (not when you pick it up).

## **7. Course Communication (Website, Listserv, Blackboard)**

### **Course Website**

The official course website is at:

[http://www.ils.unc.edu/courses/2006\\_fall/inls723\\_001/](http://www.ils.unc.edu/courses/2006_fall/inls723_001/)

It is the responsibility of every student to **check the website regularly** for announcements.

The Announcements section of the website will be the source for all **official announcements** related to the class. Your instructor may announce tests, assignments, or changes to assignments in class, but there is no guarantee or promise that such announcements will be made in class. The Announcements section of the website is the **only** official, reliable source for announcements, changes, etc. from the instructor. If something the instructor says in class conflicts with information posted by the instructor on the website, then the information posted on by the instructor **on the website takes precedence**. Verbal instructions are easily mis-interpreted, and they do not leave a documentation trail.

### **Listserv**

In addition to the course website, there will be a UNC listserv for this course. This listserv should be available by the end of the second week of classes. Details will be posted on the course web page.

### **Blackboard System**

Course grades will be posted to the Blackboard system available at:

<http://blackboard.unc.edu/>

The Blackboard system will be used primarily for posting grades and submitting assignments – it is unlikely that other course material or information will be posted there.

## **8. Honor Code**

The UNC Honor Code is in effect for all work in this course. When work or ideas are not your own, you must attribute them. When an assignment is designated as individual, then the substance of the work you turn in must be your own. If you have any doubts or questions about a course of action or a specific situation, please ask for clarification.

Students should NOT receive (or give) major creative assistance or ongoing minor support on individual assignments. If you have any questions about this, please ask me.

## **9. Special Accommodations**

If any student needs special accommodations, please contact the instructor during the first week of classes.