# Database Concepts Syllabus

Fall 2008

#### Instructor

Dr. Jim Bowring: <a href="http://www.cs.cofc.edu/~bowring/">http://www.cs.cofc.edu/~bowring/</a>

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Email: Please use bowringi@cofc.edu with Subject = "CSCI332" (no spaces) for

a response within 24 hours. I will generally ignore other Emails.

Office hours: TR: 11:00 AM- Noon, or by appointment

## Class place and time

Classroom: J.C. Long Building (LONG) 221

Time: TR 9:25 – 10:40 AM

# Catalog description

CSCI 332 – Database Concepts – A course that introduces the student to the basic concepts, organization, and implementation models of databases, with an emphasis on the relational model. Among the topics covered are data models, query languages, relational database design using normal forms, database programming, and information assurance and security. Problems will be assigned using a relational DBMS and SQL.

Prerequisites: CSCI 230 – Data Structures and Algorithms
MATH 207 – Discrete Structures

## Required text

<u>Databases Illuminated</u>, by Catherine Ricardo, Jones and Bartlett, 2004.

#### **Electronic Resources**

- 1) Class Website
- 2) Textbook Student Resources
- 3) Software Engineering Body of Knowledge (SWEBOK)
- 4) Google Scholar
- 5) The College of Charleston <u>Libraries</u> supply free full access to a wide range of electronic resources, including the <u>ACM Digital library</u> and the <u>IEEE Computer Society Journals</u>.
- 6) Center for Student Learning
- 7) Career Planning Guide provided by the Career Center

# **Learning Objectives**

The principal objective of this course is to give you the skills and knowledge to implement and manage databases of various kinds in your professional careers. To reach this objective, the course integrates database theory with a practical approach to database design and implementation. Upon completion of this course, you will have a working knowledge of database theory and applications. You will also gain critical analysis skills to enable you to analyze and assess database solutions.

## **Professional Development**

I highly recommend that you join either the Association for Computing Machinery (ACM) or the Institute of Electrical and Electronics Engineers (IEEE) Computer Society. Both offer student memberships. We have a College of Charleston student chapter of the ACM, which you are encouraged to join (free, with free food) and attend. In your professional careers as software engineers, you should maintain one or both of these memberships.

#### **Team Projects**

I will form teams of three to four members. I will assign projects of varying scope and specifications to the teams during the semester. There will be a term team-project to develop a database and produce a series of deliverables including an oral presentation.

## Attendance and class participation

I expect you to attend and participate in every class session. Your active participation will lead to your success and to the success of the class. I expect you in class on time and prepared by having read the assigned readings. Class participation counts as 10% of your grade.

## Homework and assignments

All assignments are due at the beginning of class on their due date with no exceptions. Unless otherwise specified, you will E-mail each assignment (see above) as a single file. I require professional-grade documents containing identifying information as well as the work itself.

## Instructor availability

I am here to teach, advise, and assist you. I maintain an open-door policy, so feel free to step into my office. (Knock if the door is closed.) I will respond to your emails (see above.)

#### **Classroom disruption**

Please read the College of Charleston's <u>Student Code of Conduct</u>. When you come to class please turn off your cell phones and all other electronic communication devices.

#### **Disabilities**

If you have a documented disability and are approved to receive accommodations through <u>SNAP Services</u>, please contact me during office hours or by appointment.

## **Student Honor Code**

I expect you to abide by the <u>Honor Code</u> and the <u>Student Handbook: A Guide to Civil and Honorable Conduct</u>. If you have a question about how to interpret the Honor Code, ask before acting! I encourage collaboration, but you must document it. Thus, each student will submit their own homework and, when collaborating, provide a reference to those people and documents consulted.

# **Grading scale**

100-92 (A); 91-88 (B+); 87-80 (B); 79-77 (C+); 76-70 (C); 69-67 (D+); 66-60 (D); else (F)

## **Evaluation schedule**

10% Class preparation and participation

15% Homework & quizzes

25% Tests (3)

25% Team projects including in-class oral presentations

25% Final exam