BTTT_20030 - BMIS 2030: DATABASE MANAGEMENT (BTTT_20030)   SYLLABUS   EDIT VIEW

Syllabus

Class Meeting Times

Wednesdays 6:20 - 9:20 pm

531 Alumni Hall

Course Description

As information systems are integrated with business operations, the data within these systems becomes an increasingly important corporate asset. This course develops your knowledge of the technologies and techniques you can use to collect, disseminate, and manage data.

The objective of the course is to help you develop the skills you will need to create and use databases effectively (e.g., SQL query writing and data modeling) while providing you with exposure to the management and design issues that arise when applying these technologies in organizations. Discussions and presentations focus on the challenges of managing data and databases within organizations. The hands-on exercises and course projects will develop your skills in database design, implementation, and use.

Course Goals

Course Learning Objectives

- Skill development
  - Database creation and use
- Capability development
  - SQL & Data modeling
- Knowledge development
  - Technologies & business issues related to data management in organizations

Using Microsoft Access and the Oracle Relational Database, we will

- Create tables and databases
- Extract information from tables & databases
- Update information in tables and databases

We will learn about relational databases in general

- Theory and practice
- SQL

We will learn about database related topics

- Storage
- Architectures
- Data Administration

We Will Also

- Data model
- Develop database designs for real business areas
- Investigate database related technologies
  - Document management
  - Data warehousing and mining
  - Multi-dimensional databases
  - Storage

Textbook, Software, Supplemental Materials

Download Oracle Express (157.673 Mb)
SQL Reference (9.601 Mb)

Textbook:

- *Data Management: Databases and Organizations (5th Edition)*, Richard T. Watson, John Wiley and Sons, ISBN 0-471-71536-0

Required Software:

- Microsoft Office *with Access*

Highly Recommended Software:

- Oracle Express 10g (download link above)

Accessing Oracle Online
As an alternative (or addition) to installing Oracle Express Edition on your computer, Oracle has also been installed on a server where you can access it to do all of the exercises in the course.

In order to connect, you will have to first sign into Pitt's Virtual Private Network at: http://sslvpn.pitt.edu. Log in with your Pitt (not Katz) username and password (the same one you use to connect to CourseWeb).

Then point your browser to http://rfranklin-v1.katz.pitt.edu:8080/apex. Log in with:
username: BMIS
password: db2588

Course Outline

This is an *at-a-glance* outline to give you a quick look at topics, readings, and assignments. For full details, click on the *Week-by-Week* button at left.

Week	Topic	Reading	Due
1	Introduction		
2	Database Quick Start	Ch 1, 2	Online Quiz
3	Single Table Entities	Ch 3	Microsoft Access Query Assignment
4	Data Structures and Storage	Ch 11	Online Quiz
5	The One-to-Many Relationship	Ch 4	Single Table Entities Query Assignment
6	Data Architectures	Ch 12	Online Quiz
7	The Many-to-Many Relationshp	Ch 5	One-To-Many Query Assignment
8	Mid Tem Exam		
9	Hands-On MS access		
10	Data Modeling	Ch 7	Many-to-Many Query Assignment
11	SQL and Normalization	Ch 8, 10	Online Quiz Data Model Problem

			Data Model Problem Statement
12	Data Integrity and Administration	Ch 19, 20	Online Quiz
13	One-to-One and Recursive Relationships	Ch 6, 9	Online Quiz
14	Final Exam		Data Model

Course Requirements and Grading

Your grade will be determined by two exams, online homework, and two team projects. The requirements and breakdown are:

Requirement	Weight
Mid-term	12.5%
Final Exam	12.5%
Online Homework	15%
Online Query assignments	20%
Data Modeling Project (Team)	25%
Database Technology Investigation (Team)	15%

Scoring, testing, and assignment policies

- Unless prior arrangements are made, no late work will be accepted. All work is submitted electronically and is time-date stamped. Please prepare and submit enough in advance so that you will not encounter technical difficulties that will result in your work not being accepted.
- Exams will be delivered electronically over the Internet. Typically exams will be made available for a week so that students can take them at their convenience. For this reason, make-up exams will not be offered.
- Unless otherwise specified, assignments are to be done on an individual basis. Collaboration
  on individual assignments will be considered a violation of academic integrity (see below) and will result in a *zero* (0) grade for the assignment and additional discipline consistent with University of Pittsburgh policies.
- It is expected that all assignments will be your own original work, not copied and pasted from any source (friends, web sites, etc.). Failure to cite a source and mark quoted material is a serious violation of academic integrity (see below), no matter how small the assignment, and could result in a *zero* (0) grade for the assignment and additional discipline consistent with University of Pittsburgh policies.
- Exams and are objective (i.e. multiple choice & true-false). Scores for tests will be made available via the course web site. Students' test papers will not be returned.

Grade Ranges:

- A+ : 100.00 - 97.00
- A : 96.99 - 92.00%
- A- : 91.99 - 90.00%
- B+ : 89.99 - 87.00%
- B : 86.99 - 82.00%
- B- : 81.99 - 80.00%
- C+ : 79.99 - 77.00%
- C : 76.99 - 72.00%
- C- : 71.99 - 70.00%
- D : 69.99 - 60.00%
- F : < 60.00%

. . . . 00.00%

Grading

The following are school guidelines for final grade distributions:

Grade	Distribution
A+, A, A-	30 - 40%
B+, B, B-	35 - 50%
C+, C, C-	10 - 25%
D and below	0 - 10%

Course Policies

Academic Integrity:

Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

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 (DRS), 216 William Pitt Union, (412) 648-7890/(412) 383-7355 (TTY), as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course. A comprehensive description of the services offered by DRS is available at www.drs.pitt.edu.

Communication:

CourseWeb is the official mode of communication for this course. All materials and information pertaining to the course will be placed into CourseWeb. It is the student's responsibility to check frequently for announcements that might affect them in the course.

Students are responsible for the completion of all assignments posted into CourseWeb, regardless of whether those assignments have been discussed in class or not.

EMAIL:

EMAIL will be used for one-to-one communication and as a supplement to CourseWeb announcements. Since CourseWeb is linked to student's *University* EMAIL accounts, it is the responsibility of each student to frequently check their *University* account for messages relevant to this class. In the event a student does not use or wish to check their *University* account, it is the student's responsibility to set up EMAIL forwarding to the EMAIL account of their choice. Click the link below to do this.

EMAIL Account Forwarding
Click this link to change how your University EMAIL is forwarded. You will have to log in with your University account and password (the same as you use to login in to CourseWeb).

Copyright Notice
These materials may be protected by copyright. United States copyright law, 17 USC section 101, et seq., in addition to University policy and procedures, prohibit unauthorized duplication or retransmission of course materials. See Library of Congress Copyright Office