University Massachusetts Lowell
School of Health and Environment

Healthcare Database Design/Development
32.633.041/042

Syllabus
SYLLABUS

I. Course Title: DATABASE DESIGN

Course Number: 32.633.041/042

Class Meeting: Tuesday 5:30-8:20

Class Location: LGH Tyngsboro/LGH Lowell

Instructor: Patrick A. Scollin, EdD, MT, CLS

Telephone: (508) 254-3365

E-mail: Patrick_Scollin@uml.edu

Semester: SPRING 2012

II. DESCRIPTION

A practical approach to the design, and development of a relational database with an emphasis on healthcare. Analyzing the requirements of the database will proceed to the design of the structure of the relational database, which will then be developed in a Relational Database Management System (RDBMS). Microsoft Access will be used as the RDBMS platform.
III. COURSE OBJECTIVES

At the completion of the course, the student should be able to:

1. Understand the major DBMS models and systems.
2. Analysis and design of Database systems
3. Understand Relationships
4. Develop a relational database system
5. Understand the concepts of database administration.

IV. GENERAL INFORMATION

A. Instructor

Patrick Scollin, EdD, MT, CLS
508-254-3365

B. Time Allotment
Class Hours - 32.633.041/042 3 hours
Credit Hours - 3 semester hours

C. Placement
Open to all students who have a minimum of a bachelors degree

D. Prerequisites
None
A basic understanding of MS Access is helpful, but nor required.

E. Attendance
Students are responsible for materials presented in all lectures.

F. Office Hours
There are no formal office hours. I can meet with students before or after F2F classes or online.

G. Teaching Method
This course is taught in a Blended format which is a combination of online, audio chat and face-to-face
Lecture/Discussion Hands-on
Demonstration Library resources
Questions/Answer Sessions

H. Evaluation Method

1. Mid-Semester Project Evaluation 40%
2. Final Project 40%
3. Class Participation 20%

V. COURSE REQUIREMENTS

The student is responsible for completing all course assignments on dates specified by the instructor.

VI. REQUIRED TEXT


Suggested Access Database books – Not Required


Note: Other readings or handouts may be specified as required during the course. These readings (when required) will be placed in the Resource Folder on Blackboard.
If you need to purchase Microsoft Access

MS Office 2010 Professional (contains Access) is available at: http://www.journeyed.com/
-- Please note MS Access is Not available for the MAC.

Other Requirements:

To participate in the Audio Chat you will need headphones with a microphone. A USB headset is recommended, but the two jack audio headsets will also work.

Two versions (available at Amazon.com and Target)
Logitech Premium Stereo Headset with Noise-Canceling Microphone
Logitech Premium USB Headset 350/250

Note: Email communications will be sent to your student email address (FirstName_LastName@student.uml.edu) or through Blackboard mail.

VII. All students are advised that there is a University policy regarding dishonesty and cheating. It is the students’ responsibility to be familiar with these policies.

**Plagiarism** (whether from published sources, unpublished sources or the Internet) is absolutely not allowed in preparation of written assignments. A first offense will mean a letter reduction in your grade for the entire course; a second offense will result in your failing the course. It is incumbent on you (the student) to learn and understand what is meant by plagiarism and act accordingly. I encourage you to read http://en.wikipedia.org/wiki/Plagiarism. No extenuating circumstances will be allowed, and no second chances will be given. If I find that so much as a single sentence is copied without attribution (even if a word or two is changed), the above sanctions will be applied. (Created by A. James Lee – 2009)

VIII. GRADING SCALE

A+ = 97-100
A  = 93-96
A- = 90-92
B+ = 87-89
B  = 83-87
B- = 80-82
C+ = 77-79
C  = 73-76
C- = 70-72
F  = 69 and below

SNOW POLICY:

In the event that classes are cancelled due to bad weather and it is on a Face-to-Face meeting date we will have an Audio chat at our normal chat time and will push the Face-to-Face meeting to the next week, if the room is available. If the University has not closed, but I deem it to be hazardous for students to travel to Lowell I will post both an announcement and email on the course website and email everyone at their student email address. If you have concerns you can call me at 508-254-3365.
## Course Schedule

* F = Face-to-Face   O = Online

<table>
<thead>
<tr>
<th>Date</th>
<th>F or O*</th>
<th>Readings</th>
<th>Assignments</th>
<th>Audio Chat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/24/12</td>
<td></td>
<td>HI+M Dinner Forum</td>
<td>No Class,</td>
<td>No</td>
</tr>
<tr>
<td>1/31/11</td>
<td>F</td>
<td>Chapter 1 – Relational Database Design</td>
<td>Log into WebCT, run Audio Chat Setup Review PowerPoints on Chapter 2 – Design Objectives and Chapter 3 – Terminology</td>
<td>No</td>
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<tr>
<td></td>
<td></td>
<td>Chapter 2 – Design Objectives</td>
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<td>Chapter 3 – Terminology</td>
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<tr>
<td>2/7/11</td>
<td>O</td>
<td>Chapter 4 – Conceptual Overview Chapter 5 – Starting the Process</td>
<td>Review PowerPoints on Chapter 4 – Conceptual Overview Post your questions to the Discussion Board.</td>
<td>7:30 PM – Test Audio Chat</td>
</tr>
<tr>
<td>2/14/11</td>
<td>F</td>
<td>Chapter 6 – Analyzing the Current Database</td>
<td>Post your questions to the Discussion Board Be prepared to discuss your Database Design Topic.</td>
<td>No</td>
</tr>
<tr>
<td>2/21/11</td>
<td>O</td>
<td>Chapter 7 – Establishing Table Structure</td>
<td>Post your questions to the Discussion Board</td>
<td>7:30 PM – Audio Chat</td>
</tr>
<tr>
<td>2/28/11</td>
<td>O</td>
<td>Chapter 8 – Keys</td>
<td>Post your questions to the Discussion Board Mission Statement and Objectives Due</td>
<td>7:30 PM – Audio Chat</td>
</tr>
<tr>
<td>3/6/11</td>
<td>F</td>
<td>Chapter 9 – Field Specifications</td>
<td>Post your questions to the Discussion Board</td>
<td>No</td>
</tr>
<tr>
<td>3/13/11</td>
<td>O</td>
<td>Chapter 10 – Table Relationships</td>
<td>Post your questions to the Discussion Board Tables, Keys, and Fields Due</td>
<td>No – Semester Break</td>
</tr>
<tr>
<td>3/20/11</td>
<td>O</td>
<td>Chapter 11 – Business Rules</td>
<td>Post your questions to the Discussion Board Field Specifications Due Create Tables, Fields and Keys</td>
<td>7:30 PM – Audio Chat</td>
</tr>
<tr>
<td>3/27/11</td>
<td>F</td>
<td>Chapter 12 – Views</td>
<td>Post your questions to the Discussion Board Bring to class examples of your table relationships</td>
<td>No</td>
</tr>
<tr>
<td>Date</td>
<td>Type</td>
<td>Topic</td>
<td>Activities</td>
<td>Time</td>
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<tr>
<td>4/3/11</td>
<td>O</td>
<td>Chapter 13 – Reviewing Data Integrity</td>
<td>Post your questions to the Discussion Board</td>
<td>7:30 PM – Audio Chat</td>
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<td>Relationships Due</td>
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<td></td>
<td>Define Relationships in Access</td>
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<td></td>
<td>Create Queries (Views)</td>
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<tr>
<td>4/10/11</td>
<td>O</td>
<td>Chapter 14 – Bad Design – What Not to Do</td>
<td>Post your questions to the Discussion Board</td>
<td>7:30 PM – Audio Chat</td>
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<tr>
<td></td>
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<td></td>
<td>Define Queries in Access</td>
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<tr>
<td>4/17/11</td>
<td>F*</td>
<td>Developing Forms in Access</td>
<td>Post your questions to the Discussion Board</td>
<td>No</td>
</tr>
<tr>
<td>4/24/11</td>
<td>O</td>
<td>Developing Reports in Access</td>
<td>Post your questions to the Discussion Board</td>
<td>7:30 PM – Audio Chat</td>
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<td>Develop Forms in Access</td>
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<tr>
<td>5/1/11</td>
<td>O</td>
<td>Developing Macros, Buttons &amp; Menus in Access</td>
<td>Post your questions to the Discussion Board</td>
<td>7:30 PM – Audio Chat</td>
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<td>Define reports in Access</td>
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<tr>
<td>5/8/11</td>
<td>F*</td>
<td>Wrap up</td>
<td>Projects Due</td>
<td>No</td>
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[*]NOTE: Face-to-Face classes on 1/31, 2/14, 3/6, and 3/27 will be held at the LGH Tyngsboro facility on Potash Road, 2nd floor conference room. Face-to-Face classes on 4/17 and 5/8 will be held in the LGH Wallace Board Room (off the cafeteria) Varnum Avenue, Lowell.