

# ISM 4210: DATABASE MANAGEMENT

## COURSE SYLLABUS

### GENERAL INFORMATION:

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**Class Times:** Tuesday & Thursday 9:35 AM – 11:30 AM

**Class Location:** HVNR 240

**Professor:** Dr. Aditi Mukherjee

**Office; Phone:** STZ 360, 39-20648

**Email:** aditimukherjee@ufl.edu

**The subject line should contain ISM4210, otherwise the email may end up in my junk email and you may not get a response in a timely manner.**

**Office Hours:** Monday, Wednesday 9:30 – 11 AM

**If you wish to come to my office during office hours, you do not need to make an appointment.**

**Course Website:** All information and materials pertaining to this course will be made available through the course website on the Canvas (<https://lss.at.ufl.edu/>). Please note that this is an eco-friendly class that is nearly paperless. With the exception of the in class tests, all graded materials will be submitted electronically using the course website on Canvas. Additional information regarding the submission policies for this class is provided below.

**Textbook:** Modern Database Management, 12<sup>th</sup> Edition (2015), Pearson Publishing  
Authors: Jeffrey A. Hoffer, V. Ramesh, Heikki Topi ISBN-10: 0133544613

**Reference:** MySQL Cookbook, 3rd Edition (2014), O'Reilly Media  
Author: Paul DuBois ISBN-10: 1449374026

**Required Software:** MySQL (Any Version after 5.0)

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### COURSE GOALS:

The goal of this course is to understand the basic concepts of modern database systems and to be able to apply these concepts effectively in planning, designing and querying a database. It also provides a further understanding of entity relationship (ER) diagrams and normalization. The Structured Query Language (SQL) command, used to maintain or query the database, is covered. This course uses MySQL as an example of database management system (DBMS).

The topics include:

- (1) ER model: to introduce how to use an Entity-Relation model (ER model) to represent data structure of a business organization, and to learn the basic concepts of database management, such as entity, relation, attributes, etc.
- (2) EER model: to introduce Enhanced Entity-Relation model (EER model) and the concepts of supertype and subtype, and how to generalize entities.
- (3) Relation model: to introduce the structure of a relation model and how to transform an EER model to a relation model. And based on the relation model, we will study how to normalize a relation model in order to satisfy integrity constraints and reduce data redundancy.
- (4) SQL: to introduce Structured Query Language (SQL), how to retrieve information from databases, and then to further study how to conduct queries under complex conditions.
- (5) Advanced SQL: to further study how to conduct queries under more complex conditions.
- (6) Database Application: to further understand database application developments such as client/server system, two-tier/three-tier architecture, database and web applications

**GRADE COMPOSITION:**

Your grade for the course will be determined according to the following scheme:

- Syllabus Quiz/MySQL Install 5 %
- Individual Projects 35 %
- Exam I 20 %
- Exam II 40 %

The class grades will be assigned using the University of Florida's grading scale described in the table below. For more information, please refer to the [University of Florida Grading Policy](#).

Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade
[93-100]	A	[85-88]	B+	[74-76]	C+	[64-66]	D+	[0-56]	E
[89-92]	A-	[80-84]	B	[70-73]	C	[60-63]	D		
		[77-79]	B-	[67-69]	C-	[57-59]	D-		

**A. Syllabus Quiz/MySQL Install**

Students can earn this portion of their grade as follows:

- Syllabus Quiz must be completed during first week of class: 3% of course grade.
- MySQL Installation must be completed before the midterm deadline: 2% of the course grade.

The exact deadlines for this portion of the course grade can be found on course website.

**B. Individual Project**

In order to demonstrate your understanding of the various processes and tools discussed in class, you will be required to complete an individual project. This individual project has multiple deliverables throughout the modules must be individual work only. The submission deadlines and instructions will be provided on the course website on Canvas. Please read the instructions and requirements for each deliverable very carefully. Please feel free to discuss the project with me prior to the submission date. I will be available in my office hours (and other times, by appointment) to answer your questions regarding this project. The due date will be strictly enforced, and no late, faxed, emailed or photocopied submissions are acceptable. The details and the deadlines for each deliverable are available in the Individual Project Instruction Sheet.

**C. Exams**

There are two exams for this course. The date, time and location of the exams will be provided on the class website on Canvas. Both exams will last for one and a half hours and will be closed book unless otherwise announced. No laptop, palmtop, or hand-held computing devices will be allowed. Exam II will not be comprehensive.

**C1. Make Up Exams:** THERE WILL BE NO MAKEUP EXAMS. Conflicts for the exams must be resolved before the exam dates. You should contact me at least two weeks prior to the exam date and inform me in writing. Last minute requests will not be entertained. The only reasons for not being able to take the examination at its designated time should be part of University policy, or a documented medical excuse.

**C2. "Re-grade" Requests:** Please note that any request to re-grade any component of your submissions (assignment, quiz, exam or project) has to be made within the week you receive the grade. Given the size of the class, and the speed with which the course progresses, any request beyond this deadline cannot be considered. The only exception to this rule is a documented emergency.

**CLASS POLICIES:****A. Class Attendance, Participation and Discipline**

**A1. Attendance:** Class sessions will provide useful information – both for learning the topics covered in the course and for working on projects. The text and other reading materials alone are not likely to be sufficient for one to do well in the course. Attendance is not compulsory during regular classes with the exception of the project presentation days. However, if you miss a class, you will be responsible for all materials discussed during class and assigned in the class readings for that class. There will be no make-up class assignments, exercises, quizzes or exams. Attendance is required on the group presentation days. You are required to present in the class for the duration of the entire class period. Laptops will not be allowed during these classes. If you arrive late, leave early, only stay for your group presentation or use your laptop during other presentations, 10 points will be deducted from the “Group Project” portion of your grade. Further penalties may be imposed if you fail to attend your own group’s presentation. No exceptions will be made or excuses will be accepted.

**A2. Participation:** Student participation in class discussions is crucial because it introduces alternative viewpoints and helps clarify concepts for the class as a whole. I expect highest level of participation during the entire module. You should complete the assigned readings before coming to class. I will expect you to be ready with answers to questions related to the readings.

**A3. Discipline:** I expect you to maintain the decorum of the class at all times. As with any other group activity, please be acutely aware that your actions in class may have negative externalities that can collectively affect the performance of the entire group. Please keep the following in mind:

- Students are expected to attend all classes and arrive in class on time and stay till the end of the class. If a student must be late or must leave a class early, he or she should make prior arrangements with the instructor. If you cannot be on time or must leave the classroom for any reason, please do not bother coming/returning to the classroom.
- Students should refrain from using the computer during class time for activities that are not directly related to the topic being discussed in class. These activities include, but are not limited to, instant messaging, web surfing, game playing, social networking etc.
- Students are expected to respect the rights of their classmates and should never exhibit any behavior that is disruptive to the learning experience of anyone. For example, cell phones should not be allowed to ring, and calls should not be made or taken, inside the classroom. You will be asked to switch off your phones during quizzes and exams conducted in the classroom.

**B. Teaching Policies**

An updated list of UF teaching policies regarding academic honesty, student illness, religious holidays, accommodating students with disabilities and others are available at this website (<http://www.registrar.ufl.edu/staff/policies.html>). Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

One point worth emphasizing: plagiarism in any form is completely unacceptable and will not be tolerated. Students found receiving and/or giving any assistance will be automatically awarded a 0 grade for the assignment, homework, project or exam, depending on the severity of the event which will be assessed by the instructor.

**C. Communication**

I will be available at my office during the office hours. I will also be available to talk to you at other times by appointment. To schedule an appointment at any other time than my regular office hours, please send me e-mail at [aditimukherjee@ufl.edu](mailto:aditimukherjee@ufl.edu). Most of my communication that is meant for the entire class will be through the e-learning platform (other than occasional emails to the mailing list, which will come into your Gatorlink mailbox), so do log in to the system regularly. The subject line should contain 'ISM4210, otherwise the email may end up in my junk email and you may not get a response in a timely manner.

Further, make sure that you are not over quota with your Gatorlink mailbox, since in such cases you will not be aware of the latest emails pertaining to this class.

**D. Honors Policy**

You are expected to follow the University of Florida's Academic Honesty and Conduct Codes when working on assessments, quizzes, assignments, projects, tests, and exams. One point worth emphasizing: plagiarism in any form is completely unacceptable and will not be tolerated. We will be following the ISOM Department policy regarding cheating:

"For any academic class activity, students must follow the University of Florida Student Honor Code. Any violation of the honor code will automatically result in a grade of E (Fail) for this course and further sanctions that may include a suspension or expulsion from the University through the Dean of Students Office. All incidents will be reported to Student Conduct and Conflict Resolution at the University of Florida."

You are expected to read the complete policy at <http://www.registrar.ufl.edu/catalog/policies/students.html#honesty>

**TENTATIVE CLASS SCHEDULE**

Please review the complete course schedule on the course website in Canvas.

Day	Topic	Reading	Project
1	Course Introduction The Database Environment & Development Process	Chapter 1	
2	Conceptual Data Model (ERD and Enhanced ERD)	Chapter 2 & 3	
3	Logical Data Model (Relational Model)	Chapter 4	IP#1: EERD
4	Normalization	Chapter 4	IP#2: Relational Model
	<b>Mid Term Exam</b>		
5	SQL: DDL	Chapter 6	
6	SQL: DML	Chapter 6	
7	SQL: Single Table Queries	Chapter 6	IP#3: SQL: DDL + DML
8	SQL: Single Table Queries	Chapter 6	
9	SQL: Multiple Table Queries	Chapter 7	IP#4: SQL: STQ
10	SQL Practice	Chapter 7	
	<b>Final Exam</b>		