

CIS 402**Database Management Systems****Fall 2014**

Instructor: Dr. Jon O'Donnell
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Office Hours: Tuesday 11:00 to 12:00
Wednesday 2:00 to 5:00
Thursday 11:00 to 12:00
Other times by appointment

Prerequisites: CIS 202 – Programming and Algorithms I
CIS 301 – Systems Analysis and Design

Learning Outcomes: A study of database management systems. The student will investigate the analysis, design, and implementation of a modern database management system.

Upon successful completion of the course the student should be able to:

1. Develop a Conceptual Schema for an unstructured problem.
2. Convert the Conceptual Schema to a logical data model for a relational database.
3. Understand the Normalization Process.
4. Use SQL Data Definition Language to create a database.
5. Use SQL Data Manipulation Language to enter, modify, and retrieve data.

All competencies will be measured through a series of hands-on assignments and examinations.

Text: Modern Database Management, 9th Edition (Hoffer, Prescott, and Topi), 10th Edition (Hoffer, Ramesh, and Topi), or 11th Edition (Hoffer, Ramesh, and Topi), Prentice Hall, 2009, 2011 or 2013.

Grading:

	Approx. <u>Points</u>	Grade Scale:		
Tests/Quizzes	325	90% - 100%	=	A
Assignments	200	80% - 89%	=	B
		70% - 79%	=	C
		60% - 69%	=	D
		below 60%	=	E
<hr/> Total	<hr/> 535			

I will return all graded assignments and try to keep you posted on your grade progress throughout the semester. Please check your progress constantly and see me about any discrepancies as soon as possible.

Examinations: There will be three exams and each will be worth 100 points. In addition, we will have additional scheduled quizzes and /or pop quizzes if I feel that they are necessary to measure your understanding of a topic area. If you arrive to class late on an examination or quiz day then you may not be allowed to take the exam – at a minimum, points may be deducted.

Assignments: There will be a number of class assignments. Most of these will be completed outside of class and will be due at the beginning of the class on the due date. No assignment will be accepted after the beginning of the last regular day of class. Some assignments will be turned in on-line and due at a specified date and time. Other assignments will be turned in at the beginning of a class meeting. Any assignment turned in late will be charged a penalty of 20% per class.

Honesty is the best Policy: The work in the course is designed to be completed by a student working alone. Some students work and learn better in groups. If you choose to work in a group (up to 4 students), you just need to clear it with me via e-mail at least 24 hours before it is due and turn in a single project with all names on it.

Working in a group is voluntary. No accommodations will be made for group dynamic or scheduling problems. Do not put anything in your assignments that you cannot explain. Keep up with the reading and assignments. Please let me know if you need additional help.

Attendance: It is my belief that there is an immeasurable and intangible benefit to attending all classes and it is my job to make each class worth attending. If you might miss a test due to some very good reason, it is your responsibility to schedule a make-up or make alternate arrangements with me **BEFORE** the test is given. Announced quizzes cannot be made up unless you schedule a make-up with me before the quiz is given. Pop quizzes cannot be made up for any reason other than a university-sponsored event. Even if you have car trouble at the last minute I expect a phone message explaining the circumstances as soon as it is physically possible.

Cheating: Don't.

Class Conduct: Remember the golden rule.

Special Services: Any student requiring accommodation for taking notes or tests or having a chronic illness should make arrangements, as early in the semester as is possible, to discuss his or her needs with me.

Note: The material on this syllabus is subject to change as I see fit to meet the needs of the class.

Tentative Schedule:

Week	Topics Covered
1	Introduction and file processing vs. the database approach.
2	The database development process, Database analysis.
3	Logical Data Modeling and ER Diagrams
4	Degree and Cardinality of Relationships, EER Diagrams
5	Test 1
6	Logical Database Design
7	Mapping EER Diagrams to the relational database model
8	Normalization
9	Physical Database Design, Performance
10	Test 2
11	SQL – Data Definition Language
12	SQL – Single Table Queries
13	SQL – Multiple Table Queries
14	Triggers, Stored Procedures and Functions
15	Final Exam - Comprehensive