

Syllabus

Course Number: CIS 313

Course Title: Introduction to Database Concepts

Course Description:

This course will provide an introductory look at database concepts, emphasizing the relational database model. The course will also illustrate concepts and application of the entity-relationship diagram as well as the principles and application of normalization. The student will understand the use of structured query language (SQL) to extract information from the database. We will also take a broad overview at some advanced databases topics such as, Web Database Development, Data Warehouses and Database Administration.

Prerequisite Courses:

None

Course Outcomes:

Upon completion of this course, learners should be able to:

- Describe the reasons and purpose of using a database
- Explain the conceptual foundation of the relational model for databases
- Demonstrate basic SQL statements for creating, querying, modifying and deleting data from a relational database
- Discuss the basic stages of database development and the role of the data model. Describe basic database design principles
- Explain the need for and importance of database administration and the need for security, backup and recovery
- Describe Web database processing
- Describe the basic concepts of data warehousing, OLAP, and data mining.

Course Materials:

Required Texts:

Kroenke, D. M., and Auer, D. J., (2013). *Database Concepts (6th ed.)*. Pearson Prentice Hall; ISBN-13: 978-0-13-274292-4 or ISBN-10: 0132742926.

Required Resources:

Download the Student Data Files for the 6th edition of the textbook at <http://www.pearsonhighered.com/kroenke/>

Technology Tools:

Microsoft Access 2013 and Visio 2013 - you can obtain free copies of Microsoft Access and Visio 2013 through our academic alliance with Microsoft (MSDNAA). Please email the MSDNAA Administrator (msdnaa@regis.edu) with your name and course number. You will receive an email from the Administrator that provides you with a link to the Microsoft DreamSpark website and instructions. These copies are valid for one year.

Optional Materials:

None

Pre-Assignment:

Classroom Delivery: Due first night of class

- Reading Assignment: Chapter 1 in the textbook
- Prepare a typewritten paper (two to three pages, double-spaced, using the APA format)
 - How does your company or a previous company you worked for use collected data?
 - What type of DBMS is used?
 - How well is the system meeting the goals of the business?

Online Delivery:

- Reading Assignment: Chapter 1 in the textbook.

Course Assignments and Activities:

(Syllabus Author: fill in Week, Topics, Readings, Activities, Assignments Due, and Points or % of Grade)

	Topics	Activities	Reading Assignment*	Assignments*
1	Introduction to Databases	<ul style="list-style-type: none">• Introductions• Discussion• Access Workbench	Chapter 1	MS Access Exercise – create a database
2	Relational Data Modeling and Normalization	<ul style="list-style-type: none">• Discussion• Access Workbench	Chapter 2	MS Access Exercise – add database tables

3	Data Modeling and the Entity Relationship Diagram (ERD)	<ul style="list-style-type: none"> • Discussion • Access Workbench 	Chapter 4	Create an Entity Relationship Diagram (ERD)
4	Structured Query Language (SQL)	<ul style="list-style-type: none"> • Discussion • Access Workbench 	Chapter 3, Appendix E online	MS Access Exercise – SQL queries
5	Database Design	<ul style="list-style-type: none"> • Discussion • Access Workbench 	Chapter 5	MS Access Exercise – add database tables & update the ERD
6	Database Administration	<ul style="list-style-type: none"> • Discussion • Access Workbench 	Chapter 6	Essay – Distributed Two-Phase Locking
7	Advanced Database Concepts	<ul style="list-style-type: none"> • Discussion • Access Workbench 	Chapter 8	Essay – Summarize DB learning
8	Database Processing Applications	<ul style="list-style-type: none"> • Discussion 	Chapter 7	Final Exam

** Note to Classroom sections only:* Exact dates for readings and assignments may be one week earlier or later than indicated in the Course Overview Grid. Your facilitator's syllabus, handed out the first night of class, will indicate any changes.

Course Policies and Procedures:

Assignment	Value (percent of overall course grade)
MS Access Assignments (4)	40%
ERD Assignment	5%
Participation/Online Forum/Papers	35%
Final Exam	20%
TOTAL	100 %

Written Assignments

An important component of this course is the completion of written assignments. All written work is expected to meet undergraduate level standards. Assignments will be graded for content and for writing skills.

The Publication Manual of the American Psychological Association (APA) is to be used for written work in the College for Professional Studies. Research papers required in this and other courses are expected to follow APA guidelines. The facilitator will provide format, submission, and guidelines for the assignments.

APA Resources: <http://www.regis.edu/regis.asp?sctn=ars&p1=ws>

Participation

Due to the accelerated nature of the course, class participation is very important since we can learn from each other. Your participation points can make a difference in the final grade. If you do not participate during any given week, you will lose the participation points of that week. Participation means:

1. a. Present in class every session (classroom)
b. Present at least three days in the forum every week (online)
2. a. Responds effectively to questions from the facilitator (classroom)
b. Checks the discussion forum daily and posts all required assignments, initial discussion question(s) postings and discussion reply postings by the deadlines (online)
3. Contributes to classroom/forum discussions, etc.

CC&IS Grading Scale

Letter Grade	Percentage	Grade Point
A	93 to 100	4.00
A-	90 to less than 93	3.67
B+	87 to less than 90	3.33
B	83 to less than 87	3.00
B-	80 to less than 83	2.67
C+	77 to less than 80	2.33
C	73 to less than 77	2.00
C-	70 to less than 73	1.67
D+	67 to less than 70	1.33
D	63 to less than 67	1.00
D-	60 to less than 63	.67
F	Less than 60	0

Additional information about grading can be found in the latest edition of the University Catalog, available at <http://www.regis.edu/Academics/Course%20Catalog.aspx>.

CC&IS Policies and Procedures

Each of the following CC&IS Policies & Procedures is incorporated here by reference. Students are expected to review this information each term, and agree to the policies and procedures as

identified here and specified in the latest edition of the University Catalog, available at <http://www.regis.edu/Academics/Course%20Catalog.aspx> or at the link provided.

- The CC&IS Academic Integrity Policy.
- The Student Honor Code and Student Standards of Conduct.
- Incomplete Grade Policy, Pass / No Pass Grades, Grade Reports.
- The Information Privacy policy and FERPA. For more information regarding FERPA, visit the [U.S. Department of Education](http://www.ed.gov).
- The HIPAA policies for protected health information. The complete Regis University HIPAA Privacy & Security policy can be found here: <http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx>.
- The Human Subjects Institutional Review Board (IRB) procedures. More information about the IRB and its processes can be found here: <http://regis.edu/Academics/Academic-Grants/Proposals/Regis-Information/IRB.aspx>.

The CC&IS Policies & Procedures Syllabus Addendum summarizes additional important policies including, Diversity, Equal Access, Disability Services, and Attendance & Participation that apply to every course offered by the College of Computer & Information Sciences at Regis University. A copy of the CC&IS Policies & Procedures Syllabus Addendum can be found here: <https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx>.

