Department of Computer & Electrical Engineering and Computer Science
Florida Atlantic University
Course Syllabus

1. Course title/number, number of credit hours	
COP 3540 Introduction to Database Structures	3 # of credit hours
2. Course prerequisites, corequisites, and where the course fits in the program of study	
COP3530 Data structure and algorithm analysis Or permission of the instructor	
3. Course logistics	
Term: Spring 2015 This is a classroom lecture course M W F 11:00am—11:50am FL 404 Text book: Database Management Systems, third edition. Raghu Ramakrishnan and Johannes Gehrke. McGraw-Hill Higher Education, 2002, ISBN-13: 978-0072465631	
4. Instructor contact information	
Instructor's name *Office address* *Office Hours* *Contact telephone number* *Email address*	Dr. Dingding Wang, Assistant Professor Engineering East (EE96) Rm 510 Mon 2:00pm-3:30pm Wed 2:00pm-3:30pm 561-297-3228 wangd@fau.edu
5. TA contact information	
TA's name *Office address* *Office Hours* *Contact telephone number* *Email address*	
6. Course description	
An introduction to the design, implementation and use of relational database systems. Topics include DBMS design, relational model, SQL language, indexing techniques, etc. Programming projects will be done in SQL in MySQL database.	
7. Course objectives/student learning outcomes/program outcomes	
Course objectives	This course will provide students with an in-depth understanding of the theory, operation and application of modern database systems.
Student learning outcomes & relationship to ABET a-k objectives	At the end of the class, students should be able to master concepts of DBMS design, relational model, indexing techniques, etc. (ABET a) Students will apply SQL programming language to perform relational database operations. (ABET b,c,d,e)

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8. Course evaluation method	
Homework - 40 % Midterm - 20% Projects - 20% Final – 20 %	*Note*: The minimum grade required to pass the course is D.
9. Course grading scale	
Grading Scale: 90 and above: "A", 87-89: "A-", 83-86: "B+", 80-82: "B", 77-79 : "B-", 73-76: "C+", 70-72: "C", 67-69: "C-", 63-66: "D+", 60-62: "D", 51-59: "D-", 50 and below: "F."	
10. Policy on makeup tests, late work, and incompletes	
Makeup exams are given only if there is solid evidence of a medical or otherwise serious emergency that prevented the student from participating in the exam. Assignments are to be submitted on time, with possible point penalties for late submissions. In no case will an assignment be accepted after the graded papers for that assignment have been returned to the students. However, appropriate accommodations will be made for students having a valid medical excuse for being unable to work on an assignment during its two to three week period. Unless there is solid evidence of medical or otherwise serious emergency situation, incomplete grades will not be given.	
11. Special course requirements	
None.	
12. Classroom etiquette policy	
University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions.	
13. Disability policy statement	
In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton campus, SU 133 (561) 297-3880 and follow all OSD procedures.	
14. Honor code policy	
Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and place high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. See University Regulation 4.001 at www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf	

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15. Required texts/reading

None. Below are references.
Database Management Systems, third edition. Raghu Ramakrishnan and Johannes Gehrke. McGraw-Hill Higher Education,2002, ISBN-13: 978-0072465631
Lecture slides, hands-out and notes

16. Supplementary/recommended readings

Ramez Elmasri and Shamkant B. Navathe Fundamentals of Database Systems. Fourth Edition, Addison-Wesley, 2004. ISBN 0-321-12226-7.
Abraham Silberschatz, Henry F. Korth and S. Sudarshan. Database System Concepts. Fourth Edition. McGraw Hill, 2004. ISBN 0-07-255481-9.

17. Course topical outline, including dates for exams/quizzes, papers, completion of reading

Topics	Chapters
Introduction	1
DBMS design, ER model	2
Relational model	3
Relational algebra & calculus	4
SQL	5
Midterm and review	
File organization and storage	8 and 9
Indexing techniques	10 and 11
Transaction management	16
Concurrency & crash recovery	17 and 18
Normalization	19
Latest trends in database	Selected parts in chapter 25 - 28
Final exam	

COP 3540: Introduction to Database Structures - Spring 2015

Description:
This course teaches an introduction to the design, implementation and use of relational database systems. Topics include DBMS design, relational model, SQL language, indexing techniques, etc. Programming projects will be done in SQL in MySQL database.
Textbook:
Database Management Systems, third edition. Raghu Ramakrishnan and Johannes Gehrke. McGraw-Hill Higher Education, 2002, ISBN-13: 978-0072465631
Instructor:
Dingding Wang, wangd@fau.edu
Goal:
This course will provide students with an in-depth understanding of the theory, operation and application of modern database systems. At the end of the class, students should be able to master concepts of DBMS design, relational model, indexing techniques, etc. Students will form teams and apply SQL programming language to perform relational database operations. Presentations will be given by students to discuss their projects.

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Prerequisites:
COP3530 Data structure and algorithm analysis

Tentative Topics:

Introduction
DBMS design, ER model
Relational model
Relational algebra & calculus
SQL
File organization and storage
Indexing techniques
Transaction management
Concurrency & crash recovery
Normalization
Latest trends in database

Tentative Grading Policy:

Homework: 40%
Midterm: 20%
Project: 20%
Final: 20%