Course Guide for CMSC 127 1st Semester, AY 2014-2015

Student Guide

for

CMSC 127

File Processing and Database Systems

BS Computer Science
University of the Philippines Los Baños
1st Semester, AY 2014-2015
Welcome to File Processing and Database Systems!

This is your course guide for CMSC 127 and this will present to you the important things/reminders that you should bear in mind about this course.

COURSE DESCRIPTION
This course is basically focused on data models; database management system; database languages; data security, integrity, synchronization, protection and recovery; and query languages.

COURSE OBJECTIVES
After going through this course, you should be able to:
Explain different concepts in database systems;
Develop a conceptual model for various applications; and,
Design, implement and maintain a database system for a specific application.

PREREQUISITES
Before taking this course, you must have passed CMSC 123 or have an approved COI form.

COURSE OUTLINE*
The entire course is divided into six (6) units. Each unit is further divided into modules as follows:

Part I: Introduction
Databases and Database Users
Database System Concepts and Architecture

Part II: Data Models
Data Modeling Using the Entity-Relationship (ER) Model
The Enhanced Entity-Relationship (EER) Model
The Relational Data Model
Unified Modeling Language Class Diagram
Relational Database Design by ER and EER-to-Relational Mapping

Part III: Relational Database Languages
The Relational Algebra and Calculus
SQL Schema Definition, Constraints, Queries, and Views
----------First Long Exam----------

Part IV: Database Design Theory and Methodology
Functional Dependencies and Normalization for Relational Databases
Further Dependencies and Normal Forms

----------Second Long Exam----------

Part V: Transaction Processing Concepts
Basic Transaction Concepts and Theory
Concurrency Control Techniques
Database Recovery Techniques
Database Security

Part VI: Emerging Trends in Database Systems
Distributed and Object-Oriented Databases
Data Mining and Data Warehousing
Mobile, Multimedia and Genome Databases

----------Third Long Exam----------
Topics may be added, deleted, or rearranged depending on time constraints.

GRADING SCHEME
Your final grade will be computed based on your performance in the following:

Lecture		60%
	3 Long Exams	50%
	Quizzes and Attendance	10%
Laboratory		40%
Total		100%

After summing both lecture and laboratory points, the grading scale to be followed is the one below:

95 - 100	**1.00**	70 - 74	**2.25**
90 - 94	**1.25**	65 - 69	**2.50**
85 - 89	**1.50**	60 - 64	**2.75**
80 - 84	**1.75**	55 - 59	**3.00**
75 - 79	**2.00**	0 - 54	**5.00**

There will be no grade of 4 given, thus there will be no removals.

HOUSE RULES

Attendance – Your attendance will be checked every meeting based on your seating arrangement. In terms of absences, you are allowed only 20% of the total lecture hours which means six (6) absences. These 6 absences will be applied to both excused and non-excused absences. If you gain perfect attendance, then you will have bonus points.

Missed Exam – If you missed an exam, valid excuse slip duly noted by your college secretary must be presented not later than the 2nd class session after your return. The score incurred in the final exam becomes your grade for the missed exam. If no excuse slip is presented, the missed exam will be marked as zero.

Missed Quiz – No make-up quiz will be given if you missed one.

Final Exam – Students who get a pre-final grade of below 70% are required to take the final exam. Your final exam makes up 20% of your lecture grade. If you missed it, valid excuse slip must be presented as soon as possible.

Latecomers – Coming to class late is strictly discouraged.

Cheating, Plagiarism and other forms of Academic Dishonesty – Students involved in cheating, plagiarism and other forms of academic dishonesty (according to the definition of the university) will be sanctioned as follows: 1st offense – grade of zero for the academic requirement to which the dishonesty was committed; 2nd offense – elevate and resolve case within the institute level through the student welfare committee; 3rd and succeeding offenses – elevate case to the university level through the Student Disciplinary Tribunal. The offenses defined are not strict to the current semester but involves previous semesters (if the student has taken the subject several times due to failing grade).

Noisy Students – Noisy students will be asked to leave the room.

SELECTED REFERENCES

Elmasri, R. and S.B. Navathe. 2010. Fundamentals of Database Systems. 6th Edition. Addition Wesley. ISBN-13: 978-0-136-08620-8

Elmasri, R. and S.B. Navathe. 2007. Fundamentals of Database Systems. 5th Edition. Addition Wesley. ISBN: 981-06-9800-3

Silberschatz, A., H. Korth and S. Sudarshan. 2002. Database System Concepts. 4th Edition. McGraw-Hill. ISBN: 0071210407

CONTACT INFORMATION

If you have any problems or questions about the course, please do not hesitate to consult me. You will find my contact information below.

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