# Introduction to Database Systems CS 364 Spring 2018 Olson

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#### **Course Description**

The course discusses what information is, why it is necessary to manage it, database systems (both relational and non-relational), SQL, relational algebra, normalization, data modeling, and the trends.

## Course Outcomes

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

Through lectures, exercises, labs, and the term project, students are expected to gain a solid understanding regarding:

- (1) what is information and why an organization needs to manage information,
- (2) the different types of information processing applications,
- (3) advantages of relational model,
- (4) the relational model itself including its mathematical foundation of relational algebra.
- The students are expected to be able to conduct data modeling using Entity Relation model, convert the model into a sound logical database design, and implement the logical database with a physical database while maintaining the balance between a highly normalized table structure and performance.
- Students also will be able to demonstrate their mastering of SQL, the

- universal language to communicate with a Database Management System (DBMS).
- All materials covered in the class are applied by the students in their term projects where they have to construct a data model, complete a database design, implement the design, and build an application to interact with the database.

#### Text

Kroenke, David M. & Auer, David J; Database Processing Fundamentals, Design and Implementation; ISBN 978-0-13-387670-3 14th Edition

Although we will use the materials from this edition, you are welcome to use previous edition of the book.

# Assignments

## **Study Guides**

Study guides contain a combination of true/false, multiple choice and short answer questions. They are designed to make sure students have obtained the critical information from the chapter.

## Quizzes

Four quizzes during the term. Your lowest grade is dropped. Should you miss a quiz, it will be considered your lowest grade.

#### Labs

As part of each chapter discussion questions are assigned. Students working in groups of two create a short presentation (6-10 slides). The instructor assigns the view point for each group prior to the presentation.

## Midterm Exam

Midterm exam covers the labs, study guides, and lectures.

## **Projects**

Students complete a term project as part of the cours.l;

## Final Exam

Description		
Study Guides	15%	
Quizzes	20%	
Labs	15%	
Midterm Exam	20%	
Project	10%	
Final Exam	20%	

# Grading

Your final grade is based on this scale.

Percentages	Grade
100%-92%	A
92%-90%	A-
90%-88%	B+
88%-82%	В
82%-80%	В-
80%-78%	C+
78%-72%	С

72%-70%	C-
70%-68%	D+
68%-62%	D
62%-60%	D-

## **Attendance Policy**

Worked missed due to absence cannot be made up and receive a zero score. In some situations low assignment scores may be dropped.

#### **ELECTRONICS POLICY**

"Electronic items such as cell phones, laptops, iPads, iPods and e-book readers should not distract you or your classmates during class. If you are distracting yourself or others, in any way, with an electronic item in class, you will be asked to step into the hall until you are done with the item.

#### ACADEMIC INTEGRITY

"Students must adhere to WOU's Code of Student Responsibility. Academic dishonesty will not be tolerated in this course. I REPORT ALL INSTANCES OF SUSPECTED DISHONESTY. Any student who violates the policy will receive 0 points on the assignment, and MAY also be given a failing grade for the course. The case will also be turned over to the Student Judicial Committee for further action. Examples of inappropriate behavior includes doing assigned work for another student, sharing answers on work assigned to be done individually, sharing or copying answers during an exam or portraying another person's writing as your own. If you have questions about what might be considered inappropriate, please ask me!"

#### Here is the source document:

#### Scholastic Honesty

Code of Student Responsibility -- 574-031-0030 Specific Standards and Policies

The following list of prohibited forms of conduct is not all inclusive since it is not possible to list all potential violations. The University requires that all students behave in a manner congruent with established community standards and in a manner conductive to the development of the individual. Actions detrimental to the mission of the University and the legitimate activities of the academic community which constitute the University are in violation of this Code and may be subject to judicial procedures.

- 1) Academic dishonesty, which includes but is not limited to:
- (a) Cheating- intentional use or attempted use of artifice, deception, fraud, and/or misrepresentations of one's academic work;
- (b) Fabrication- unauthorized falsification and/or invention of any information of citation in any academic exercise;
- (c) Facilitating dishonesty helping or attempting to help another person commit an act of academic dishonesty. This includes students who substitute for other persons in examinations or represent as their own papers, reports, or any other academic work of others
- (d) Plagiarism- representing without giving credit the words, data, or ideas of another person as one's own work in any academic exercise. This includes submitting, in whole or in part, prewritten term papers of another of research of another, including but not limited product of commercial vendor who sell or distribute such materials. And the appropriation of and/or use of electronic data of another person or persons as one's own, or using such data without giving proper credit for it; or
- (e) Any use or attempted use of electronic devices in gaining an illegal advantage in academic work in which use of these devices is prohibited, and such devices include but are not limited to cell phones, pdas, iPads, laptops, programmable calculators, etc.