Attachment: Current Syllabus of IST3210

IS&T 3210 Fall 2014

T 5:30 – 8:10 pm DV Building 2 Room 226

**Database Design and Implementation**

Instructor: Dr. Zhuolin Yu

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Office Hours: TTH 10:00-11:00am, W 2:30-5:30pm Ogden Campus T 2:00-4:00pm

Davis Campus, by email or by appointment

Text: David M. Kroenke, Database Processing Fundamentals, Design, and Implementation 11th Edition, ISBN: 13:978-0-13-230267-8

Website for student’s supplemental materials:

http://wps.prenhall.com/bp\_kroenke\_database\_11/

**Course Objectives:**

Upon successful completion of this course, students should be able to:

* Be software literate and possess software development skills
* Be able to design and implement database management systems according to business data
* Understand the fundamentals of database processing and describe the differences between:
  + DBMS vs. application programs
  + Database processing vs. file processing
  + DBMS vs. database
* Understand the general principals of database development
* Model data needs by using Entity-Relationship data models
* Normalize and optimize data relations
* Design databases using ER data model
* Implement a database using relational data model
* Create queries for relational databases
* ~~Design database applications based on a data model~~
* ~~Understand and utilize internet technology in database applications~~
* Manage Internet databases
* Access a database server
* ~~Understand the special needs of multi-user database processing and learn techniques for controlling the consequences of concurrent data access~~
* Understand and resolve various issues in sharing enterprise data

**Course Policies:**

1. This is a four credits class, but we only spend three hours in the classroom each week. You are expected to do some self study on your own (e.g. MS Access). You are responsible for preparing in advance of each day’s lecture. Reading ahead is recommended, so that we can use more time in class to do the hands on.
2. You are expected to take advantage of office hours to discuss database processing and development problems.
3. Assignments are due before class starts on the due date indicated either on the course schedule or on the assignment sheets. All the assignments must be typed. You will be given partial credit for trying even if you did not get it right.
4. All late assignments will be dropped a letter grade for every 24 hours it is late. Under special
5. circumstances you have to email me before the due date and ask for special treatment in order to avoid the penalty.
6. You are expected to attend all classes and exams unless you are absent due to illness or a family emergency. If you miss an exam due to the above reasons, you will normally be asked to provide a written excuse before taking a makeup. Otherwise no makeup exam can be given. You will get a zero for your grade of that exam.
7. Students with Disabilities:
8. Students requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in Room 181 of the Student Service Center on the Ogden campus. SSD can also arrange to provide materials (including this syllabus) in alternative formats if necessary.
9. Any attempt to gain unfair advantage during exams is considered cheating. If you are caught cheating in this class, you will fail the class and the CBE will pursue the matter to the fullest possible extent.
10. In the event of an extended campus closure, I will continue to provide instruction by utilizing the Canvas online course system (WSU Online). I will provide text-based mini-lectures each week and will expect you to login to the system on a regular basis to keep up with course work if you are able. Assignments will be provided through the online system with clear due dates and expectations. Discussions will be made available to allow you to interact with other students and me about course material, but participation in these will not be required. I will check email within the Blackboard course on a daily basis should you need to communicate with me personally. If you are not familiar with the Canvas system, please review the student orientation available at <http://wsuonline.weber.edu/students/orientation.asp>.

**Grading:**

Your performance will be evaluated as follows:

75% Exams (3)

25% Assignments

Your final grade will be determined from your total points:

93% - 100% = A

90% - 92% = A-

87% - 89% = B+

83% - 86% = B

80% - 83% = B-

77% - 89% = C+

73% - 76% = C

70% - 72% = C-

67% - 69% = D+

63% - 66% = D

60% - 62% = D-

BELOW 60% = E

**Download Software:**

* Instructions for install SQL Server Developer's edition: You should choose every default except on authentication. You should choose "Windows Authentication" instead of "SQL Sever Authentication".
* After you install properly and you are going to use your SQL server for the first time, you should run SQL Server Management Studio to connect to you SQL server. You can also used the SQL Express XXXX from download from Microsoft’s website.

**WEEK/DAY TOPIC DUE**

#1 8/26/14 Introduction to the Course

ch1. Introduction

#2 9/2/14 Appendix D Assignment #1

ch2. Introduction to Structured Query Language

#3 9/9/14 ch2. Continued

#4 9/16/14 ch3. The Relational Model and Normalization Assignment #2

#5 9/23/14 Exam #1 (Appendix D and ch. 1& 2, Testing Center)

#6 9/30/2014 ch4. Database Design Using Normalization Assignment #3

#7 10/8/14 ch5. Data Modeling With E-R Model Assignment #4

#8 10/15/14 ch6. Transforming Data Models into Database Designs

Assignment #5

#9 10/22/14 ch7. SQL for DB Construction & Application Processing

Assignment #6

#10 10/29/14 Exam #2 (ch.3, 4, 5 & 6, Testing Center)

#11 11/5/14 ch8. Database Redesign Assignment #7

~~ch9. Managing Multi-User Databases~~

#12 11/12/14 ch10. Managing Database Using MS SQL 2008 Assignment #8

Assignment #9

#13 11/19/14 ch10. Continued

#14 11/26/14 ch11. The Web Server Environment Assignment #10

ch12. Database Processing with XML

#15 12/3/14 ~~ch13. Database Processing for Business Intelligence Systems~~

~~Assignment #11~~

#16 12/10/14 Exam #3 (ch. 7, 8, 9, 11 & 12, Testing Center)

**Assignments:**

Assignment #1: Chapter 1. P28. Project: 1.61, 1.62, 1.63, 1.64 and 1.66 (Using SQL Server instead of MS Access).

Assignment #2: Chapter 2. P82. Project: 2.53 – 2.61, Marcia’s Cleaning A-Q.

Assignment #3: Chapter 3. P122. 3.4, 3.34, 3.36, 3.37, 3.44, 3.45 and 3.59

Assignment #4: Chapter 4. P140 4.6, 4.9, 4.11, 4.18, 4.22, 4.31 and 4.32

Assignment #5: Chapter 5, P182. 5.15, 5.16, 5.59 and 5.65

Assignment #6: Chapter 6. P231. 6.1, 6.5, 6.22, 6.52 and 6.58 (6.52 & 6.58: Ignored the requirements by the Book. Use SQL Server to do the homework)

Assignment #7: Chapter7. P287. 7.4—7.17, 7.20--7.34, 7.52 and 7.55

Assignment #8: Chapter 8. P314. 8.11, 8.13, 8.15, 8.24 and 8.27

Assignment #9: Chapter 9. P347. 9.1, 9.9, 9.20, 9.30 and 9.59

Assignment #10: Chapter 10. P420 10.29 A—I

~~Assignment #11: Chapter 11. 11.2, 11.6, 11.16, 11.52 and11.60.~~

~~Chapter 12. 12.2,12.11, 12.12~~