OAKLAND UNIVERSITY
SCHOOL OF BUSINESS ADMINISTRATION
DECISION AND INFORMATION SCIENCES DEPARTMENT

MIS 3140 Business Database Systems
Winter 2018

COURSE CRN:	11946	**DAY/TIME:**	Tue 6:30 – 9:20 pm
CLASS LOCATION:	223 EH	**CREDITS:**	3 hrs
PROFESSOR:	Dr. Venu Balijepally		
EMAIL:	balijepa@oakland.edu	**OFFICE PHONE:**	(248) 370 4088
OFFICE HOURS:	Tue/Thu 4:30 – 5:30 pm and by appointment		
OFFICE:	318 Elliott Hall		

COURSE DESCRIPTION:
Organizations initiate, analyze, design, and implement information systems to address business problems, opportunities or directives. Typically, organizations develop and deploy information systems not only to create competitive advantage, but also to just stay competitive in a fast changing global marketplace. Data related to most business systems are stored in databases, which form the backend for information systems.

The course provides a solid foundation in database concepts and design as they apply to business information systems. It covers principles of conceptual as well as relational designs and includes translation of business requirements into entity relationship diagrams, normalization of tables and advanced SQL to address specific business problems. Topics include modelling real-world business problems into entity relationship diagrams (ERDs), translating ERDs into database structure, implementing the relational model into a specific database management system during the physical database design, querying the database using SQL, modifying database structure, transaction management, etc. This is a project oriented course with lots of assignments and a project deliverable. The course will be challenging and quite demanding of your time and efforts.

COURSE PREREQUISITES
MIS 3000 (MIS 300) or MIS 3010 (MIS 201) or MIS 3020 (MIS 302), and MIS 3050 (MIS 305) with a minimum grade of 2.0.

REQUIRED TEXT:
Textbook (Mandatory):

- Database Systems: Design, Implementation and Management, 11th edition
  By Coronel, Morris and Rob
  ISBN-13: 978-1285196145

Software:

- Microsoft Visio Professional 2010, Microsoft Access, Microsoft SQL Server 2013 SP3, Microsoft Visual Studio Professional 2012 which are available in the computer labs of the School of Business Administration (SBA).
- Dream Spark site for getting free Microsoft software: http://www.sba.oakland.edu/msdnaa/

COURSE OBJECTIVES/LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

- Understand the basic concepts of relational databases and the role of database development within the systems development life cycle.
- Be able to represent real-world business requirements using Entity Relationship Diagrams (ERDs) and convert ERD into database structures.
- Be able to normalize database tables in the database design process.
- Be able to create database tables in a DBMS, modify data and create queries using Structured Query Language (SQL).
- Understand the concepts of transaction management and concurrency control
- Demonstrate database design and implementation skills through a group project.

GRADING:

Grade component	Weight % of Total
Midterm Exam	25%
Final Exam	25%
Assignments	15%
Team project	15%
Quizzes	10%
Class Work/Participation	10%
TOTAL:	**100%**

Your score will be converted to a percent and then graded on a 4.0 scale (shown below).

Score	Grade	Score	Grade	Score	Grade
98.60-100.00	4.0	78.60-79.59	2.9	68.60-69.59	1.9
96.60-98.59	3.9	77.60-78.59	2.8	67.60-68.59	1.8
94.60-96.59	3.8	76.60-77.59	2.7	66.60-67.59	1.7
92.60-94.59	3.7	75.60-76.59	2.6	65.60-66.59	1.6
90.60-92.59	3.6	74.60-75.59	2.5	64.60-65.59	1.5
88.60-90.59	3.5	73.60-74.59	2.4	63.60-64.59	1.4
86.60-88.59	3.4	72.60-73.59	2.3	62.60-63.59	1.3
84.60-86.59	3.3	71.60-72.59	2.2	61.60-62.59	1.2
82.60-84.59	3.2	70.60-71.59	2.1	60.60-61.59	1.1
80.60-82.59	3.1	69.60-70.59	2.0	59.60-60.59	1.0
79.60-80.59	3.0				

CLASS POLICIES:

Responsibility for Course Materials: This class involves a great deal of hands-on work and will require lot of your time. Please plan ahead and budget your time accordingly. You are expected to attend all the classes and read the chapters ahead of time so that you can participate in the class discussion. **Class participation is mandatory and simply attending class is not sufficient**. You have to volunteer to answer questions and stimulate discussions.

Readings and Online Quizzes: You are expected to study from the textbook/ assigned readings. Additional readings may be posted during the course of the semester.

Regular online quizzes are scheduled on Moodle relating to chapter concepts. A 6-day window (say from Wed-Mon) is provided for taking the quizzes. These quizzes are timed, but open book and open notes and should be taken individually. Any collaboration with other students or seeking outside help during quizzes is strictly prohibited. Prior reading of the chapter/reading material is essential for doing well on these quizzes. You do not want to miss these quizzes as no makeup quizzes are allowed. The lowest quiz score is dropped when computing final course grade.

Exams: There will be two proctored exams during the semester - midterm and final. Both are closed book, closed notes exams. The tentative dates/times are indicated in the course schedule. Any updates to these exam dates/times will be announced in the class.

Individual Assignments: Individual homework assignments are given during the course of the semester. Each individual assignment should be done independently and turned in before the due date and time on the Moodle drop box, where applicable. Assignments/projects are considered late if submitted after that and do not receive any credit.

Team Project: An important component of this course is to apply, in a team setting, the basic concepts and the data and process modeling techniques to an information system development project. The project has to be done in a team consisting of a maximum 2 members. Once teams are formed, they cannot be changed. So, please pick your team carefully. I strongly encourage students to develop the skills necessary to work with each other in a team, because in the industry IS people have to work in project teams. Team members are expected to contribute equally towards project. No one would be able get a "free ride" because there will be peer evaluations taken. Individual scores will be adjusted based on peer evaluation.

Projects have to be turned in on the Moodle when they are due. While each team turns in only one copy of the solution everyone should have a copy of their own. Also, everyone should know how to do the project components because you have to do similar kinds of problems in the exams. Late projects will not be accepted.

Class Work/Participation: Class participation is mandatory and simply attending class is not sufficient. You have to volunteer to answer questions and stimulate discussions. Also, as part of class participation, students will be required to work on individual/group tasks during some class meetings and turn in their work. Your class participation grade will be subjectively judged (at the end of the semester) based on the extent and quality of your class participation and deliverables from the individual/group tasks done in class. The students should save and keep a copy of the class work tasks as they are required for reviewing for exams.

Academic Conduct: Ethics is a fundamental business concept. The standards of conduct by which one's actions are judged right or wrong, honest or dishonest, fair or unfair, are called ethics. All members of the academic community at Oakland University are expected to practice and uphold standards of academic integrity and honesty. Academic integrity means representing oneself and one's work honestly. Misrepresentation is cheating since it means students are claiming credit for ideas or work not actually theirs and are thereby seeking a grade that is not actually earned. The following are some examples of academic dishonesty:

- i. *Cheating on examinations.* This includes using materials such as books and/or notes when not authorized by the instructor, copying from someone else's paper, helping someone else copy work, substituting another's work as one's own, "Googling" answers, or other forms of misconduct on exams.
- ii. *Plagiarizing the work of others.* Plagiarism is using someone else's work or ideas without giving that person credit; by doing this students are, in effect, claiming credit for someone else's thinking. Whether students have read or heard the information used, they must document the source of information. When dealing with written sources, a clear distinction should be made between quotations (which reproduce information from the source word-for-word within quotation marks) and paraphrases (which digest the source of information and produce it in the student's own words). Both direct quotations and paraphrases must be documented. Even if students rephrase, condense or select from another person's work, the ideas are still the other person's, and failure to give credit constitutes misrepresentation of the student's actual work and plagiarism of another's ideas. Buying a paper or using information from the World Wide Web or Internet without attribution and handing it in as one's own work is plagiarism. Online resources to help you avoid plagiarism: http://library.oakland.edu/tutorials/studentplaghandout2008.pdf http://library.oakland.edu/tutorials/plagiarism/index.htm
- iii. *Unauthorized collaboration.* Unauthorized collaboration on computer assignments and unauthorized access to and use of computer programs, including modifying computer files created by others and representing that work as one's own. Unless they specifically indicated otherwise, it is expected that students will submit individual, unaided work on homework assignments, exams, and exercises, as well as documentation of sources when used. Any academic misconduct will automatically result in a failing grade for the class and the student will be reported to the University committee on academic misconduct for further disciplinary action.
- Please read and comply with the University's policy on academic conduct (i.e., ethical behavior). It is printed in the undergraduate catalogue as well as the student handbook.
- Please visit the Dean of Students website for more information: http://www4.oakland.edu/?id=67&sid=74

Special Considerations: Students with disabilities who may require special considerations should make an appointment with campus Disability Support Services, 106 North Foundation Hall, phone 248 370-3266. Students should also bring their needs to the attention of the instructor as soon as possible. For academic help, such as study and reading skills, contact the Academic Skills/Tutoring Center, 103 North Foundation Hall, phone 248 370-4215.

TENTATIVE SCHEDULE (Subject to Change)

Week	Class Date	Topic	Chapter(s)
1	Jan 9	Introduction; Database Systems; Data Models	1, 2
2	Jan 16	The Relational Data Model	3
3	Jan 23	ER Modeling	4
4	Jan 30	ER Modeling	4
5	Feb 6	Normalization of Database Tables	6
6	Feb 13	Normalization of Database Tables	
7	Feb 20	**Winter Break**	
8	Feb 27	**Midterm Exam**	
9	Mar 6	SQL	7, Class notes
10	Mar 13	SQL/Advanced SQL	7, 8, Class notes
11	Mar 20	Advanced SQL	8, Class notes
12	Mar 27	Advanced SQL	8, Class notes
13	Apr 3	Advanced Data Modeling	5
14	Apr 10	Transaction Management and Concurrency Control	10
15	Apr 17	Business Intelligence and Data warehouses; Final Review	13
16	Apr 24	**Final Exam** 7:00 – 10:00 pm	