CSC 453 – Database Technologies

This is an introductory graduate course in database design and implementation.

Term	2015 – 2016 Spring
Section	901 (32676) CDM Center 228 Thursday 5:45PM - 9:00PM
Section	910 (32677) : Online Learning
Instructor	Nirajan Khadga
Office Hours	Wednesday 5:30PM – 7:00PM
Office Location	CDM 430
Skype	nkhadga (*Include "CSC 453" in the Skype contact request*)
Email	nkhadga@cdm.depaul.edu; nkhadga@gmail.com
Course Web Site	http://d2l.depaul.edu/
Required Text	Fundamentals of Database Systems, **7th edition** Elmasri & Navathe, Addison-Wesley/Pearson, 2016. ISBN: 978-0133970777
Prerequisite	CSC 403 Data Structure II

Grading

There will be assignments given most weeks. Late assignments are not accepted.

Assignment	Given most weeks	30%
Mid-Term	May 5th	30%
Final Project	Due on June 9th	35%
Extra Credit (Participation)		5%

A >= 90%	B >= 80%	C >= 70%	D >= 60%	F < 60%

Regarding Academic Integrity

You are expected to be familiar with and to adhere to DePaul's Academic Integrity Policy, which is available on-line at http://academicintegrity.depaul.edu/AcademicIntegrityPolicy.pdf. Violations of the Academic Integrity Policy will be dealt with decisively; penalties may range up to an automatic F in the course and possible expulsion.

Plagiarism includes, but is not limited to: Turning in another person's work as your own (including hiring someone else to complete an assignment for you); Starting with another person's work and modifying it to turn in as your own; Cutting and pasting, or otherwise copying, sections of another person's work into your assignment; Allowing another person (such as a tutor) to write any part of your assignment; and so on. (Obviously, any examples that I post qualify as "another person's work".) Supplying such assistance to another student or working closely enough with another student that identical solutions are reached and submitted are also considered violations of the policy. In general, you may feel free to discuss the assignments with other students at a general level. However, when it comes to actually completing your assignment, you must work independently. Your assignments must be entirely your own individual work. If you have any questions or doubts about what plagiarism entails, you should consult me.

Other Tools

D2L (http://d2l.depaul.edu/)	This is the course homepage. Students are encouraged to post discussion questions here. All lectures, assignments, and other resources will be available here as well.
CDM Oracle Account	Activate your account at https://accountactivate.cdm.depaul.edu
Oracle SQL Developer	Download the Oracle SQL Developer from here.

CALENDAR		

Week 1   March 31th
- Relational DBMS
- E/R Model
- Relational Model

Week 2   April 7th
- Converting E/R diagrams to Relations
- Normalization
- Decomposition

Week 3   April 14th
- DDL, DML, and DCL
- Single Relation SQL Queries
- Aggregation

Week 4   April 21st
- Multi Relation SQL Queries
- Subqueries
- Aggregation
- Modifications

Week 5   April 28th
- More Joins, Subqueries and Aggregation
- Views
- Constraints
- Midterm Exam Information

Week 6	**Midterm Exam**	**May 5th**

Week 7   May 12th
- Authorization
- Database Programming
- PL/SQL
- Transaction Management

Week 8   May 19th
- Triggers
- Stored Procedures
- Java Database Connectivity (JDBC)
- JDBC Programming

Week 9   May 26nd
- JDBC Programming
- Indexing

Week 10   June 2nd
- NoSQL
- Review

Week 11	**Final Project Due**	**June 9th**