

CSC 453 – Database Technologies

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

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| Term | 2016 – 2017 Winter |
| Section | 801 (21908) CDM Center 216 Monday 5:45PM - 9:00PM |
| Section | 811 (21911): 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@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.**

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| Assignment | Given most weeks | 30% |
| Mid-Term | February 6 th | 30% |
| Final Project | Due on March 13 th | 35% |
| Participation Grade | | 5% |

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

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| 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

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|----------------|--|--------------------------------|
| Week 1 | | January 2 nd |
| - | Relational DBMS | |
| - | E/R Model | |
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| Week 2 | | January 9 th |
| - | Converting E/R diagrams to Relations | |
| - | Normalization | |
| - | Decomposition | |
| Week 3 | | January 16 th |
| - | DDL, DML, and DCL | |
| - | Single Relation SQL Queries | |
| - | Aggregation | |
| Week 4 | | January 23 rd |
| - | Multi Relation SQL Queries | |
| - | Subqueries | |
| - | Aggregation | |
| - | Modifications | |
| Week 5 | | January 30 th |
| - | More Joins, Subqueries and Aggregation | |
| - | Views | |
| - | Constraints | |
| - | Midterm Exam Information | |
| Week 6 | Midterm Exam | February 6th |
| Week 7 | | February 13 th |
| - | Authorization | |
| - | Database Programming | |
| - | PL/SQL | |
| - | Transaction Management | |
| Week 8 | | February 20 th |
| - | Triggers | |
| - | Cursors | |
| - | Stored Procedures | |
| - | Java Database Connectivity (JDBC) | |
| - | JDBC Programming | |
| Week 9 | | February 27 rd |
| - | JDBC Programming | |
| - | Indexing | |
| Week 10 | | March 6 th |
| - | NoSQL | |
| - | Review | |
| Week 11 | Final Project Due | March 13th |