**CSCI 3287: Database and Information Systems**

**Spring 2016**

**Instructor:** Dr. Frank W. Miller

**Office:** ECOT 734

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**Office Hours:** 11:30a-12:30p TTh

Available other times as needed, send me an email or stop by

**Teaching Assistants:** Karthik Kannan ([karthik.kannan@colorado.edu](mailto:karthik.kannan@colorado.edu))

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**Class Time/Location:** TTh 12:30p-1:45p ECCR 200

**Description:**

This course provides an introduction to Relational Database Systems. This subject is broken down into three sections, 1) theory, 2) use, and 3) implementation. The course materials will treat each of these sections in turn. Topics for the course include:

**THEORY**

Relational Model of Data

Design Theory for Relational Databases

High-Level Database Models (E/R, UML, ODL)

**USE**

Algebraic and Logical Query Languages

The Database Language SQL

Constraints and Triggers

Views and Indexes

**IMPLEMENTATION**

Secondary Storage Management

Index Structures

Query Execution

The Query Compiler

Concurrency Control

Transaction Management

**ADVANCED TOPICS**

**Textbook:**

*Database Systems: The Complete Book, 2nd Edition*, Garcia-Molina, H., Ullman, J. D., and Widom, J.

**Course Website:**

Please enroll ASAP in the Moodle course web page. Nearly all your class interactions will be available through Moodle.

The Moodle site includes two discussion forums. The first is used by the instructors to broadcast to the students. The other is a discussion forum to be used between students. The instructor does not monitor or even look at this forum so you should not expect any answers from the instructor on that forum.

**Grading and Policies:**

50% Homework/Programming Assignments/Quizzes

50% Examinations

20% Midterm

30% Final

Assignment of letter grades is made by the instructor at the end of the course based on your cumulative weighted percentage. The scale upon which this final assignment is made is A >= 90%, B >= 80%, C >= 70%, and D >= 60%. The instructor has discretion to modify this curve as needed. The instructor also has discretion to apply +’s and –‘s and to modify letter grades at their discretion for reasons other than course scores, e.g. violations of the honor code, class attendance and student participation and behaviors.

**Default Grading Policy:**

All work should be your own on all assignments unless otherwise indicated.

[Plagiarism policy.](https://www.cs.colorado.edu/%7Erhan/CSCI_2400_Fall_2015/plagiarism_policy.htm)

[Disability Policy](https://www.cs.colorado.edu/%7Erhan/CSCI_2400_Fall_2015/disability_policy.htm)

[Religious Observances Policy](https://www.cs.colorado.edu/%7Erhan/CSCI_2400_Fall_2015/religious_observances_policy.htm)

[Discrimination and Sexual Harassment Policy](https://www.cs.colorado.edu/%7Erhan/CSCI_2400_Fall_2015/discrimination_harassment_policy.htm)

[Classroom Behavior Policy](https://www.cs.colorado.edu/%7Erhan/CSCI_2400_Fall_2015/classroom_behavior_policy.htm)