CS2050 Intro Discrete Math for CS - Spring 2015

Instructor: Monica Sweat, Email: sweat@cc.gatech.edu
Head TA: Conor Fitzpatrick
TAs: Samuel Blumenthal, Jesse Hayes, Sally Kim, Shannon Nguyen, Robert Pierce, Tommy Rogers, Patrick Sewell, Christine Shih, Tessa Valentien, Anugrah Vijay, Aditya Vishwanath, and Yuda Winata

TA Office Hours: Office hours will be held in CCB 130. We'll post the office hours schedule on T-Square and also physically on the door of CCB 130.

Textbooks:

- *Discrete Mathematics and Its Applications* by Kenneth Rosen, 7th edition. 2011. (This is a somewhat new edition! Yes, you need it. This book is seriously not optional. Feel free to get the hardcover version, kindle version, loose leaf version, rental version, as that part doesn't matter. It must not be an international edition, nor an older edition. (If you rely on either of those, you will need a friend that is willing to share the homework questions from the correct edition. Also, the section numbers will not be the same.) ISBN: 978-0073383095.
- *Student Solutions Guide for Discrete Mathematics and Its Applications. 7th edition.* ISBN: 978-0-07-735350-6 (This is extremely helpful as it walks you through all the solutions of the odd numbered problems.)

DO NOT GET A DIFFERENT EDITION. Homework assignment problems will come mainly, if not entirely, from the textbook and will be based on the 7th editions numbering. It is the students responsibility to turn in the correct assigned problems. **Do not purchase the international edition of the book, nor an older edition.**

List of Topics:

Propositions, Proofs, Propositional Logic
Induction and Recursion
Basic Counting and Probability
Number Theory: Euclid's Algorithm, Primality, RSA
Models of Computation such as Finite Automata and Regular Expressions
Application of techniques to domains of relevance to computer science

Course Objectives:

Help students gain an understanding of basic primitives and paradigms of the mathematical theory of computation. Students will learn to write formal proofs and understand logic. Various areas of mathematics are explored to help provide a foundation for computation. The course provides a basis for understanding and developing clear logic, understanding simple encryption techniques, writing regular expressions, designing computational models and more.

Grade Breakdown:

Homework	10%
Exams	18% each x 4 regular exams) = 72%
Final Exam	18%

There is no curve and no rounding in this course. Letter grades are calculated on a straight scale.

90.00 and above	A
80.00 to 89.99	B
70.00 to 79.99	C
60.00 to 69.99	D
below 60.00	F

Timely Handling of Grade Disputes: Grade disputes for assignments, exams, etc. must be discussed within one week of being available for return. All grade disputes are to be turned in to the Head TA, Conor Fitzpatrick. A regrade form is required and is available on T-Square under Resources and also preprinted in CCB 130.

Exam Policy: There are no makeups for missed exams. Institute excused absences are an exception to this rule. (An institute excused absence would be something like being a member of the official GT football team and being required to go out of town with the team to play in the Orange Bowl!)

Any exception to the Makeup exams are not given rule must be accompanied with a recommendation from the Dean of Students.

If you arrive to a exam/final exam late, you may be refused admittance and get a zero.

Homework: Homework is assigned weekly and due at the start of class as noted on the assignment. The assignment itself will be send out via T-Square. Homework will be turned in on paper. Late homework is not accepted. There are no makeups for missed homework assignments.

Attendance Policy: Lecture and recitation attendance is required and expected.

Collaboration Policy: Collaboration can be an important learning technique. With this learning opportunity comes responsibility. You must understand the difference between collaboration and plagiarism.

- Collaboration means talking through problems, assisting each other with understanding, explaining a concept, etc. You are not allowed to simply exchange or write answers for others.
- Over reliance on others will undermine your mastering of the subject and ultimately your ability to perform on exams.
- We reserve the right to give a 0 on duplicated HW and/or pursue academic misconduct charges.