Mathematics 2602: Linear and Discrete Mathematics
Section F, Spring 2014, Georgia Institute of Technology

Course Objectives

The main goals of this course are to learn how to prove mathematical statements, to solve mathematical problems, and to apply and analyze known theorems and algorithms in the subject areas of combinatorics, number theory, and graph theory.

Professor

Prof. Margalit, Skiles 244, *margalit@math.gatech.edu*, (404) 894-2715.

Class Meetings

Meetings are Tuesdays and Thursdays, from 12:05 until 1:25 pm in CULC 102.

Textbook

Discrete Mathematics with Graph Theory, Goodaire and Parmenter, 3rd edition.

Office Hours

In Skiles 244, Mondays 3-4, Tuesday and Thursday after class, and by appointment.

Clickers

This course uses Turning Point clickers. Grades are based on participation.

Quizzes

Before each class meeting, reading from the textbook will be assigned, and supplemental videos will be suggested. Quizzes on the reading will be due by midnight before each class meeting.

Homework

Mostly WebWork (online), due each week, usually on Monday.

Recitations

	Classroom	TA	Email	Office Hour
F1	CULC 423	Rebecca Winarski	rwinarski@math.gatech.edu	Skiles 152
F2	CULC 129	J.D. Walsh	jwalsh35@math.gatech.edu	Skiles 149

Sections are held on Mon and Wed 1:05-1:55.

Grading

Clickers 10%, Quizzes 15%, Homework 25%, Midterms 30%, Final Exam 20%.

All students are expected to abide by the student honor code: *http://www.honor.gatech.edu*

Semester at a Glance

January 6 *First section meeting*	*7* *0.1 Compound statements*	*8*	*9* *0.2 Proofs*	*10* *Last day to drop without a W*
13 *HW 1 due*	*14* *1.1-2 Truth tables and propositional algebra*	*15*	*16* *2.3-4 Binary and equivalence relations*	*17*
20 *Martin Luther King Day*	21 *3.1-2 Functions*	*22* *HW 2 due*	*23* *3.3 Cardinality*	*24*
27 *HW 3 due*	*28* *4.4-5 Congruence*	*29*	*30* ***First Midterm***	*31*
February 3 *HW 4 due*	*4* *5.1 Induction*	*5*	*6* *5.1 Induction*	*7*
10 *HW 5 due*	*11* *5.2-3 Recursive sequences*	*12*	*13* *4.1-2 Division and Euclidean algorithms*	*14*
17 *HW 6 due*	*18* *8.1-8.2 Algorithms and complexity*	*19*	*20* *8.3 Searching and sorting*	*21*
24 *HW 7 due*	*25* *6.1-2 Inclusion-exclusion*	*26*	*27* ***Second Midterm***	*28* *Last day to drop w/ W* *Last day to elect pass/fail*
March 3 *HW 8 due*	*4* *6.3 Pigeonhole principle*	*5*	*6* *7.1-2 Permutations and combinations*	*7*
10 *HW 9 due*	*11* *7.3 Probability*	*12*	*13* *7.4 Bayes' rule*	*14*
17 *Spring Break*	*18* *Spring Break*	*19* *Spring Break*	*20* *Spring Break*	*21* *Spring Break*
24 *HW 10 due*	*25* *7.5 Repetitions*	*26*	*27* *7.7 Binomial theorem*	*28*
31 *HW 11 due*	*April 1* *9.1-9.3 Graphs*	*2*	*3* ***Third Midterm***	*4*
7 *HW 12 due*	*8* *10.1-2 Euler and Hamilton paths*	*9*	*10* *10.4 Shortest paths*	*11*
14 *HW 13 due*	*15* *12.1-2 Trees*	*16*	*17* *12.3 Spanning trees*	*18*
21 *HW 14 due*	*22* *13.1 Planar graphs*	*23*	*24* *13.2 Graph coloring*	*25* *Last day of class*
28	*29* ***Final Exam 11:30-2:20***	*30*	*May 1*	*2*

Dates are subject to change. Any changes will be announced in class and on the course web site.