ECE 190: Discrete Mathematics – Fall 2004

General Information

This course is an introduction to discrete mathematics and its applications in electrical and computer engineering. Mathematical reasoning and methods of proof will be emphasized. Topics covered in the course include: sets, logic, relations, functions, proofs, permutations, combinations, discrete probability, recurrence relations, graphs, and trees.

Students are expected to attend three lectures, one recitation, and one tutorial per week. The formal course material will be presented in the lectures. Various worked examples will be presented in the recitations. The smaller recitation class size is intended to encourage greater opportunities for questions and discussion of the course material. Homework will be assigned each week and taken up during the tutorial. Homework will not be graded; however, a ten-minute quiz covering the homework (a homework question or one closely related) will be administered each week.

Instructors

Name	E-mail	Web	Office
John Carter	jcarter@ecf.utoronto.ca	http://www.ecf.utoronto.ca/∼jcarter/	BA5102 416-946-5209
Ben Liang	liang@comm.utoronto.ca	http://www.comm.utoronto.ca/∼liang/	BA4122 416-946-8614

If you need to talk to an instructor, you may do so without an appointment during their office hours, shown in the next table. If these hours are not convenient for you, speak to the instructor or send him an e-mail to arrange a time convenient for both of you.

Instructor	Office Hours	
John Carter	Monday, Wednesday, and Friday: 12 – 13	
Ben Liang	Tuesday: 14 – 15	Thursday: 14 – 16

Grading

The grade in the course will be based on tutorial quizzes, a midterm test, and the final examination. There will be ten quizzes but the quiz grade will be computed based on a student's best nine quizzes. The midterm will cover all material up to a point that will be specified in class. The final examination will be comprehensive, covering all material, but with the emphasis on material covered after the midterm test. The composition of the final grade is as follows:

Item	Weight
Quizzes	10%
Midterm Test	35%
Final Exam	55%

As noted above, quizzes will be administered in tutorials. The date, time, and location of the midterm test will be announced early in the term. Neither calculators nor any other aids are allowed for the quizzes, the midterm test, or the final examination.

Home Page and Newsgroup

The home page and newsgroup for this course are at *http://courses.ece.utoronto.ca/20049/ece190h1f/*. Class announcements, handouts, and other information will be accessible there. The web site will also serve as home for a newsgroup where you can ask questions about the course. If you contribute to the newsgroup, remember that it is a public forum; you should not be cluttering it with material that is of no interest to others and you should be careful that the content does not offend others who may read it.

Lecture Schedule

Lectures begin at ten minutes past the hour and end at the hour. In the schedule, MC denotes the Mechanical Building.

Time	Location
M 11	MC102
W 11	MC102
F 13	MC102

Recitations

The recitations are denoted in your schedule by the letters PRA. In order to keep the sizes of all recitations small, it is important that you attend the recitation to which you have been assigned. Recitations will be used to discuss material from the previous week's lectures. They will begin during the second full week of the term (September 20–24). In the schedule, MC denotes the Mechanical Building, BA denotes the Bahen Centre, and R denotes thuRsday.

Section	Time	Location
PRA 01	T 15	MC252
PRA 02	R 11	MC254
PRA 03	F 9	BA1180

Tutorials

In your timetable, you have been assigned a one-hour tutorial, denoted by the letters TUT. As with recitations, it is important that you attend the tutorial to which you have been assigned. Tutorials will be examining material discussed in the previous week's lectures. They will begin during the second full week of the term (September 20–24). In the schedule, BA denotes the Bahen Centre, GB denotes the Galbraith Building, and R denotes thuRsday.

Section	Time	Location
TUT 01	R 11	BA2155
TUT 02	R 11	BA2165
TUT 03	R 14	GB304
TUT 04	R 14	BA2195
TUT 05	W 14	GB304
TUT 06	W 14	GB405
TUT 07	T 15	BA2185
TUT 08	T 15	GB405

Tutorials are conducted by Teaching Assistants (TA's). Although TA's will be given topics for discussion in tutorials, questions from students are more than welcome. Questions should be of a type that might be of interest to the class rather than something that is likely to be of concern only to the questioner. No new material will be presented in the tutorial sessions, but additional examples may be used to clarify points made in the lectures.

Text and Reference

The textbook for this course is:

Epp, Susanna
Discrete Mathematics with Applications, Third Edition
Brooks/Cole

The textbook, along with your notes, should provide you with an adequate supply of reference material. If, however, you feel that you need something more, there are a number of good discrete mathematics texts available. One that was used in this course in previous years is:

Rosen, Kenneth
Discrete Mathematics and its Applications, Fifth Edition
McGraw-Hill