COURSE INFORMATION
MATH 1281 – 2001/2002

The main themes of this course are mathematical reasoning, algorithmic thinking, and combinatorial analysis, that is, how to solve counting problems. The course will emphasize computer science applications.

Time	Class: Mon.,Wed.,Fri. 2:30-3:30
	Lab: Mon. 3:30 - 4:30
Place	Class: Regional Centre 0005
	Lab: Braun Building 1021
Instructor	Adam Van Tuyl
	Office: RB 2015
	Office Hours: TBA
Text	*Discrete Mathematics and Its Applications* (4th Edition) by K. Rosen
Email	avantuyl@sleet.lakeheadu.ca
Web Page	http://flash.lakeheadu.ca/~avantuyl/math1281.html

Contact Information. The best way to get a hold of me is via email. Also, check out the web page periodically. I will update it with relevant information as time goes on.

Outline. Math 1281 is a year long course. During the fall semester we will cover the following sections of Rosen's book:

Sets, Logic, and Functions – Chapter 1.1-1.8.

Algorithms, Integers, and Matrices – Chapter 2.1-2.4, 2.6

Mathematical Reasoning – Chapter 3.1-3.5

Counting – Chapter 4.1–4.4, 4.6-4.7

I will give another handout in January describing the content of the second semester.

Math 1281 also has a lab component. The lab hour (which is held once a week) will be a chance for you to come to see me about problems and questions about the material. Attendance of the lab hour is entirely voluntary.

Marking Scheme. The evaluation is composed of three components.

1. Homework (30%) A homework assignment will be given out every Friday. It will be due the following Friday at the end of class. There will be 9 homework assignments given out each semester. The homework assignment with the lowest grade will not be counted.

All of the homework questions (with some possible exceptions) will be taken from the text book. Exercises will be marked out of 2 or 4 points, depending upon the level of difficulty. Questions out of 2 points will be graded as follows:

2 pts Near perfect or perfect solution. A near perfect solution is a solution that is correct up to the final stage with possible mistake or sign error at the last step.

1 pt The solution shows some of the needed ideas, but fails to have the final solution.

0 pts Little or no progress is made toward the solution.

Questions out of 4 points will be graded as follows:

4 pts Near perfect or perfect solution. A near perfect solution is a solution that is correct up to the final stage with possible mistake or sign error at the last step.

3 pts Most of the needed ideas are present, but misses a key point, or is poorly written.

2 pt The solution shows some of the needed ideas, but fails to have the final solution.

1 pt One or two initial steps are made.

0 pts Little or no progress is made toward the solution.

Note: Homework should always be stapled or paper clipped together. Also, it must be legible enough so that it be read. Failure to do this will result in a point *deducted* from the assignment. Homework will have 1 points *deducted* for every day (only weekdays are counted) that it is late.

2. Tests (2 Midterms, 10% each) There will be two midterms. The dates of the midterms will be

October 26, 2001 - Midterm 1

March 1, 2002 - Midterm 2

3. Exams (Mid-year exam 15%, Final Exam 35%) There will a mid-year exam in December that will be cumulative, and a final exam in April, that will also be cumulative. The exact dates will be given later.

Class Policies. Though attendance is not mandatory, I would appreciate the fact that you show up on time if you do decide to come to class.

Exams and tests must be taken on the date assigned (except if there are medical or family emergencies).

Important Dates.

Sept. 10, 2001 - First semester begins

Oct. 8, 2001 - Thanksgiving (No classes)

Oct. 26, 2001 - Midterm 1

Dec. 3, 2001 - First semester ends

Jan. 7, 2002 - Second semester begins

Feb. 18-22, 2002 - Reading Week (No classes)

March 1, 2002 - Midterm 2

April 1, 2002 - Second semester ends.