## COURSE INFORMATION MATH 1271 (Discrete Mathematics) – Fall 2011

Math 1271 is an introduction to the area of discrete mathematics. Topics covered include: sets, logic, and functions, Boolean algebras, basic counting principles, permutations and combinations, discrete probability, graph theory, and elementary number theory.

Time	Class: MW 1:00-2:30
	Lab: Th 1:30-2:30
Place	Class: OA 2010
	Lab: OA 2015
Instructor	Maria Grazia Viola
	Office: OA 3027
	Office Hours: T 2:00-3:30, W 3:00-4:00, Th 2:30-3:30
Text	A Beginner's Guide to Discrete Mathematics by W.D. Wallis
Email	mviola@lakeheadu.ca

**Outline.** Math 1271 is a one semester long course. We will cover all but one chapter (Chapter 8) of Wallis's book.

Lab. Math 1271 has a lab component. The lab hour (which is held once a week on Thursdays) will be a chance for you to come to see me about problems with the material.

Marking Scheme. The evaluation is composed of three components.

1. Homework (10%) A homework assignment will be given out every Wednesday. It will be due the following Wednesday at the *end* of class. There will be 9 homework assignments per semester. The homework assignment with the lowest grade will not be counted.

All of the homework questions 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.

Homework must **always** be stapled together or have paper clip on it to avoid losing pages. DO NOT FORGET TO DO THAT!

Late homework will not be accepted unless you have a University accepted excuse for turning it late, like sickness, etc.

The copying of assignments will result in a mark of 0 for both assignments.

2. Tests (2 Midterms, 25% each x 2 = 50%) There will be two midterms. The midterms are not cumulative. The dates of the midterms are (provisionally):

October 5, 2011 - Midterm 1 November 16, 2011 - Midterm 2

**3.** Exams (Final Exam 40%) There will be a cumulative final exam in December. The exact date will be given later once the exam schedule is posted.

4. Challenge Assignments (Bonus 4%) Two times during the semester, I will post special Challenge Assignments. These assignments will allow you to look at some of the ideas we have studied in class in more depth. You are under no obligation to do these problems; each assignment will be worth up to 2% bonus mark. Further information will be given out with the first such assignment.

Exams and tests must be taken on the date assigned, except if there are medical or family emergencies. In these cases, notes will be required.

IT IS VERY IMPORTANT THAT YOU ATTEND THE CLASS AND THE LAB AND YOU DO ALL THE ASSIGNED HOMEWORK IF YOU WANT TO DO WELL IN THE CLASS. You need to practice the concepts you learned in class to be able to perform well at the exams.