COURSE INFORMATION

MATH 1271/3071 (Discrete Mathematics/Discrete Mathematics for Engineers) – Fall 2012

Math 1271/3071 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. Engineering students need to enroll in Math 3071; all other students should enroll in Math 1271.

Time	Class: MWF 8:30-9:30
	Lab: M 9:30-10:30
Place	Class: Braun Building 1075
	Lab: Braun Building 1075
Instructor	Adam Van Tuyl
	Office: RB 2015
	Office Hours: TBA
Text	*A Beginner's Guide to Discrete Mathematics* (2nd Edition) by W.D. Wallis
	(see the webpage for various ways to obtain this book)
Email	`avantuyl@lakeheadu.ca`
Web Page	`http://flash.lakeheadu.ca/~avantuyl/courses/2012_math1271_3071.html`

Contact Information. The best way to contact me is via email. The class webpage is also a good source of information. I update the webpage after every class.

Outline. Math 1271/3071 is a one semester long course. Our goal is to cover all but one chapter (Chapter 8) of Wallis's book.

Lab. Math 1271/3071 has a lab component. The lab hour (which is held once a week on Mondays) will be a chance for you to come to see me about problems with the material, and try problems related to the homework assignment. Attendance of the lab hour is entirely voluntary.

Marking Scheme. The evaluation is composed of three components.

1. Homework (10%) A homework assignment will be given out every Friday. It will be due the following Friday at the *beginning* of class. There will be 9 homework assignments per semester. For each semester, the homework assignment with the lowest grade will not be counted. The solutions will be posted on ERES, the electronic reserve of Lakehead Library, once the assignments have been handed in (a link is on the webpage).

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.

Further notes on homework:

- Every assignment must contain the course number, the assignment number, your name, and your student ID, and the instructor's name. (Every week, hundreds of math assignments are turned in - make sure your assignment gets to the right person!)
- Homework must **always** be stapled together (no paper-clips, folding the pages, folders, etc. will be accepted). Failure to do this will result in **10 points deducted** from the assignment. (Paper-clipped assignments have the tendency to fall apart; assignments in folders make more work for the grader.)
- Late homework will have **10 points deducted** for every day (the weekend is counted as one day) that is late. Once the solutions have been posted, you may no longer submit an assignment.
- The copying of assignments will result in a mark of 0 for both assignments.
- Homework may be handed in early by either giving it to me or by placing it under my office door. Do **not** bring your assignment to the math office.

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 12, 2012 - Midterm 1
November 16, 2012 - 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.

A friendly piece of advice: do not book your plane ticket home until you are certain about the exam schedule. A flight is not an acceptable excuse for missing an exam.

4. Challenge Assignments (Bonus 4%) Two times during the year, 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.

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. Arriving late disturbs both me and your fellow classmates. Also, please **turn off** your phone while in class, and **no texting**.

Changing Marks. If you disagree and/or have a problem with a particular mark on an assignment or exam, please use the following procedure. First, check you assignment/exam against the solutions. If this does not clear up any problems, on the front of the assignment/exam, please write the question number you want re-graded, and why it should be re-graded. Then hand it back it in. I will then take a look at the assignment/exam and see if the mark needs to be adjusted. If there is simply an addition error with the marks, please hand it back in to me with the correct number at the top.

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.

Important Dates.

Sept. 10, 2012 - First semester begins
Oct. 8, 2012 - Thanksgiving (No classes)
Oct. 12, 2012 - Midterm 1
Nov. 2, 2012 - Last day to drop without academic penalty
Nov. 16, 2012 - Midterm 2
Dec. 3, 2012 - First semester ends
Dec. 6-17, 2012 - Final Exams