
COURSE INFORMATION
MATH 2010 (Fall 2003) Calculus I

Time Class: Mon.,Wed.,Thur. 5:30-6:30
 Lab: Wed. 4:30-5:30
Place Class: Ryan Building 2047
 Lab: ATAC 1001
Instructor Adam Van Tuyl
 Office: RB 2015
 Office Hours: Tues 2:30-3:30 Thur. 9:30-10:30
Text *Calculus for Engineers (2nd Ed)* by Donald Trim
Email avantuyl@sleet.lakeheadu.ca
Web Page http://flash.lakeheadu.ca/~avantuyl/courses/2003_fall_math2010.html

Contact Information. The best way to get a hold of me is via email. For a prompt reply please write "Math 2010" in the subject line. Also, check the web page periodically as I will update it with relevant information as time goes on.

Outline. Math 2010 is a one semester long course, during which we will cover most of Chapters 1 - 6 of Trim's book. Our *tentative schedule* is as follows:

Week 1: Review (1.1-1.3), Limits (2.1) Lab: Finish review (if needed)
Week 2: Limits and continuity (2.2-2.5) Lab: Review graphs and functions (1.3)
Week 3: Differentiation (3.1-3.3) Lab: Review trigonometry (1.6)
Week 4: More differentiation (3.4-3.6) Lab: Review exponential and logarithm functions (1.7)
Week 5: Differentiation for trig functions and applications (3.7-3.9) Test 1 Lab: Review
Week 6: Differentiation for exponential and logarithmic functions (3.10-3.11) Lab: TBA
Week 7: Rolle's Theorem (3.12) Applications of Differentiation (4.1-4.3) Lab: TBA
Week 8: Graphing functions (4.4-4.6) Lab: TBA
Week 9: Related Rates (4.7-4.8) Test 2 Lab: Review
Week 10: L'Hopital's Rule and Differentials (4.10-4.11) Antiderivative (5.1) Lab: TBA
Week 11: Indefinite Integral (5.2-5.3) Lab: TBA
Week 12: Definite Integral (6.1-6.3) Lab: Exam Review

Math 2010 also has a lab component. The lab hour (held once a week on Wednesday) is your chance to come and see me about problems and questions about the material. I will also give review lectures (as indicated above). Tests may also be held during the lab hour.

Marking Scheme.

Your grade will be based upon three components: homework, two tests, and one final exam. Details of these components are given below.

1. **Homework (10%)** A homework assignment will be given out every Wednesday. It will be due on the following Thursday at the end of class. There will be 9 homework assignments. The homework assignment with the lowest grade will not be counted. Homework should always be stapled to together. Also, it must be legible enough so that it can be read. Failure to do either of these two things will result in 5 points deducted from the assignment. Homework will have 5 points deducted for every day (the weekend is counted as one day) that it is late. Homework can be handed in early by either giving it to me or by placing it under my office door. Furthermore, every assignment should contain: the course number, the assignment number, your name, and your student ID number.

All of the homework questions will be taken from the text book. Most exercises will be marked out of 2 points (perhaps more 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 towards the solution.

2. **Two Tests (25% each)** There will be two tests during the semester. The dates of these tests will be (subject to change):

October 9, 2002 - Test 1

November 6, 2002 - Test 2

I will explain in more detail what I expect on these exams before these dates. Also, I will make an hour long test, but give you one and half hour to complete the test. Please note that no calculator will be allowed, so please train yourselves to do this while doing your assignments.

3. **Final Exam (40%)** There will be a final exam in December that will be cumulative. The exact dates will be given later. Again, no calculator will be allowed.

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).

Please also note that dropping the course is not the equivalent to not coming to classes or the exam. There is procedure (see Course Calendar) that must be followed to official withdraw from the course.

Important Dates.

Sept. 9, 2002 - First semester begins

Oct. 9, 2002 - Test 1

Oct. 13, 2002 - Thanksgiving (No classes)

Nov. 3, 2002 - Last day to drop without academic penalty

Nov. 6, 2002 - Test 2

Dec. 1, 2002 - First semester ends