Math 252
Analytical Geometry and Calculus II
Fall 2013

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Materials

Required Materials: **An access code for Webassign** (there is an electronic version of the textbook within webassign) and a **graphing calculator**. The access code can be purchased in the bookstore packaged with the textbook or online when you sign up for Webassign. You may have already paid for the webassign code for your math 251 class.

Optional Materials: **TheTextbook:** Calculus: Early Transcendentals 7th editon by James Stewart. If you buy the text book, then be sure to get it packaged with the access code.

Course website: Most of the Homework and some tests and quizzes for the course will done on Webassign which can be found at www.webassign.net

The Webassign class key is **canadacollege 3207 0252**

Student learning outcomes (SLO's)

1. Relate Integrals to anti-derivatives, limits of the Riemann sums, and areas under a curve.
2. Use different techniques of integration to evaluate indefinite and definite integrals
3. Analyze the convergence of improper integrals and evaluate them where possible.
4. Analyze the convergence of series evaluate them where possible.

Types of Assignments

Homework (20%):   Homework will be assigned and completed on http://www.webassign.net .Assignments for a given week will be due by noon on Monday of the following week. You may ask for a one week extension, but there is a 30% penalty for all work completed after the due date.

      Homework Notebook: As you work on the problems online you will need to do all of your work in a spiral notebook. Each section should be labeled and the notebook will be checked each time you take an in class test. The HW Notebook will be graded on completeness and organization.

Quizzes (5%): There will be quizzes given in class and online. Quizzes will always be announced a day in advance. There are no makeup quizzes, but the lowest score will be dropped.

Tests (50%): There will be 5 tests. Tests may be a combination of in class, online, and take home parts. After each in class test you will be given an opportunity to correct the problems you missed and earn back some of the points that you missed.

Test	Chapter
Test 1	Chapter 6
Test 2	Chapter 7
Test 3	Chapter 8
Test 4	Chapter 9
Test 5	Chapter 10

Missed tests: There are no make ups for missed tests. If you miss a test you will get the score you get on the written final minus 10% substituted for the missed test. A second missed test will be given a score of zero.

Final Exam (25%): The final exam consists of 2 parts

Part 1: Hours by Arrangement and Portfolio Problems: To meet the hours by arrangement requirement you will work on a set of problems in the learning center. Your work on these problems will be put together into a portfolio to be collected on Monday December 9th . The portfolio will be worth 1/4 of the final exam and be graded on accuracy, neatness, completeness, organization, and the completion of at least 16 hours in the learning center. Late portfolios will be penalized 30%

Part 2: In Class Final Exam: The in class final exam is comprehensive, worth 3/4 of the final exam grade, and scheduled for Monday December 16th   2:10 – 4:40. There is no makeup for the final.

Grades

Grades are based on the percentage earned

90 – 100%   A
80 – 89%   B
70 – 79%   C
60 – 69%   D
0 – 59%   F

Tentative Schedule: I have provided a tentative schedule below. The schedule should not be considered exact, but rather give you an idea of the pace for the course. I will always announce the exact test days at least a week before the test date.

Week	Date	Topic
1	19-Aug	Introduction
	20-Aug	6.1 Area between curves
	21-Aug	6.2 Volumes
	22-Aug	6.3 Volumes by Cylindrical Shells
2	26-Aug	TBA
	27-Aug	6.4 Work
	28-Aug	6.5 Average Value of a function
	29-Aug	Review
3	2-Sep	Holiday-Labor Day
	3-Sep	Test 1 - Chapter 6
	4-Sep	7.1 Integration by Parts
	5-Sep	7.2 Trigonometric Integrals
4	9-Sep	7.3 Trigonometric Substitution
	10-Sep	TBA
	11-Sep	7.4 Integration by Partial Fractions
	12-Sep	7.5 Integration Strategies
5	16-Sep	7.6 Integration Using Tables
	17-Sep	TBA
	18-Sep	7.7 Approximate Integration
	19-Sep	7.8 Improper Integrals
6	23-Sep	Review
	24-Sep	Test 2 - Chapter 7
	25-Sep	8.1 Arc Length
	26-Sep	8.2 Area of a Surface of Revolution
7	30-Sep	8.3 Applications to Physics and Engineering
	1-Oct	TBA
	2-Oct	8.4 Applications to Economics and Biology
	3-Oct	8.5 Probability (If time allows)
8	7-Oct	Review
	8-Oct	Test 3 - Chapter 8
	9-Oct	9.1 Modeling with Differential Equations
	10-Oct	9.2 Direction Fields and Eulers Method
9	14-Oct	9.3 Seperable Equations
	15-Oct	TBA
	16-Oct	9.4 Models for Population Growth
	17-Oct	9.5 Linear Equations
10	21-Oct	9.6 Preditor Prey Systems (If time allows)
	22-Oct	Review
	23-Oct	Test 4 - Chapter 9
	24-Oct	10.1 Curves defined by Parametric Equations
11	28-Oct	10.2 Calculus with Parametric Curves
	29-Oct	10.3 Polar Coordinates
	30-Oct	TBA
	31-Oct	10.4 Areas and Lengths in Polar Coordinates
12	4-Nov	10.5 Conic sections
	5-Nov	10.6 Conic Secions in Polar Coordinates
	6-Nov	Review
	7-Nov	Test 5 Chapter 10
13	11-Nov	Holiday - Veteran's Day
	12-Nov	11.1 Sequences

	13-Nov	11.2 Series
	14-Nov	11.3 Integral Test and Estimate of Sums
14	18-Nov	TBA
	19-Nov	11.4 The Comarison Tests
	20-Nov	11.5 Alternating Series
	21-Nov	11.6 Absolute Convergence and Ratio and Root Tests
15	25-Nov	TBA
	26-Nov	11.7 Strategy for Testing Series
	27-Nov	11.8 Power Series
	28-Nov	Holiday - Thanksgiving
16	2-Dec	11.9 Representation of Functions as Power Series
	3-Dec	TBA
	4-Dec	11.10 McLaurin and Taylor Series
	5-Dec	11.11 Applications of Taylor Polynomials
17	9-Dec	TBA
	10-Dec	Review
	11-Dec	Review (last day of class)
	12-Dec	No Class
		Final Exam: Monday December 16th 2:10 - 4:40