Math 166B
Analytic Geometry and Calculus I with Review Part II
Spring 2009
MWF 8:50-10:00am

Instructor: Dr. Trisha Moller
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Office hours: MWF 8:00-8:45am or by appointment

Course Materials:

- **Texts:**
  1. James Stewart, *Single Variable Calculus: Early Transcendentals*, 6^{th} edition, Thomson Brooks/Cole, 2008.
  2. Ebersole, Schattschneider, Sevilla, Somers, *A Companion to Calculus*, 2^{nd} edition, Thomson Brooks/Cole, 2006.
- **Calculator:** All students are expected to have a graphing calculator and bring it to class. We recommend the TI-83+; instructions will be provided on this calculator, but students who wish to use a comparable calculator may.

Course Goals: This is Part II of a two-semester course in Calculus that includes a review of algebra and elementary functions. We will cover Chapters 3-5 in Stewart and Chapters 8, 11-12, 14-18, 20 in the Companion.

In this course, students will:

- review basic definitions and identities for Trigonometric functions
- develop and use the derivatives of the Trigonometric functions
- apply the concept of derivative to solving problems including optimization, related rates, and economics
- gain a better understanding of the graphs of functions by using Calculus concepts
- develop the rules for derivatives of inverse Trigonometric functions and Logarithmic functions
- find anti-derivatives of the basic functions

- explore the relationship between definite integrals and derivatives
- gain an appreciation of the Fundamental Theorem of Calculus
- find area and distances using definite integrals
- use L'Hopital's Rule to find limits of indeterminate forms

Attendance: Class attendance is required. My definition of "Attendance" includes being prepared for class. Thus, bringing a textbook/notebook/pencil to class, reviewing notes before class, completing the homework assignments before the next class meeting, and participating in class discussions are all expected of each student.

If a student is absent, he/she must inform the instructor via voicemail or email before or on the day of the absence. It is the student's responsibility to keep up with all work covered in class and all assignments, even if absent from class.

A late assignment will be graded with a reduction of 20% for each day it is late. There will be no make-up quizzes given, and make-up exams are given only in extreme, pre-approved cases. If you have to miss an exam, it is your responsibility to contact me *in advance*.

Mathematics Department Academic Honesty Policy – The Mathematics Department supports and is governed by the Academic Honesty Policy of Moravian College as stated in the Moravian College Student Handbook. The following statements will help clarify the policies of members of the Mathematics Department faculty.

In all at-home assignments which are to be graded, you may use your class notes and any books or library sources. When you use the ideas or thoughts of others, however, you must acknowledge the source. For graded homework assignments, you may not use a solution manual or the help (orally or in written form) of any individual other than your instructor. If you receive help from anyone other than your instructor or if you fail to reference your sources, you will be violating the Academic Honesty Policy of Moravian College. You may work with your fellow students on homework which is not to be graded. You are responsible for understanding and being able to explain the solution of all assigned problems, both graded and un-graded.

All in-class or take-home tests and quizzes are to be completed by you alone without the aid of books, study sheets, or formula sheets unless specifically allowed by your instructor for a particular test.

Learning Disability Accommodations: Students who wish to request accommodations in this class for a disability should contact Mr. Joe Kempfer, Assistant Director of Learning Services for Disability Support, 1307 Main St. (x1510). Accommodations cannot be provided until authorization is received from the office of Learning Services.

Methods of Evaluation:

Homework/Quizzes: Homework assignments will constitute an important part of this course and will be assigned daily. The problems assigned for homework represent a bare minimum, and you should work extra problems to ensure mastery of the material. Some problems will be turned in, some are just for practice. It is vital that you do all the homework problems assigned; you should keep all your work in a binder or notebook for reference. For every hour in class you should expect to spend 2 hours doing work outside of class. You cannot learn math without lots of practice!

Approximately once a week we will have a short, in-class quiz. The quiz questions will be based mostly on the assigned homework problems. The best way to do well on the quizzes is to do all the assigned homework.

Exams: There will be *three* in-class exams and a cumulative final exam.
The tentative dates for the exams are: **Wednesday, February 11, 2009**,
Monday, March 23, 2009, and **Wednesday, April 22, 2009**.
The final exam is scheduled for **Tuesday, May 5, 8:30am**.

Grading: The course grade will be determined as follows:

Homework/Quizzes: 15%
In Class Exams: 20% each
Final Exam: 25%

The Final Course Grade will be computed according to the following guidelines:

AVERAGE	GRADE	AVERAGE	GRADE
92-100 %	A	72-77 %	C
90-91 %	A-	70-71 %	C-
88-89 %	B+	68-69 %	D+
82-87 %	B	62-67 %	D
80-81 %	B-	60-61 %	D-
78-79 %	C+	0-59 %	F

IMPORTANT NOTE
You are responsible for any announcements made in class,
including changes to this syllabus!