Math 170 E
Analytic Geometry and Calculus I
Fall 2007

Instructor: Fred Schultheis
Office: PPHAC 218
Office Hours: MW 2:00-3:00, T 1:00-2:00, and by appointment.
Phone: 610-625-7887
Required Text: Calculus: Early Transcendentals Single Variable, James Stewart, sixth edition.

After a brief review of some algebra and analytic geometry, we will study 4 of the basic concepts of calculus. One may think of calculus as the mathematics of infinite quantities and to deal with infinite things mathematically one uses the concept of a limit. The concept of limit is central to all of calculus. The other 3 concepts; continuity, differentiation and integration are very important, special cases of limits. The review material is contained in Chapter 1 and some of the appendices. The calculus that we will cover is contained in Chapters 2-5.

Course Description

The course meets MWF from 12:50 to 2:00 in PPHAC 233. Homework assignments will be given at each class meeting. Students are expected to complete these assignments by the next class meeting, where they will be discussed. No one can learn mathematics without doing it themselves and so, to the student, homework is the most important part of the course. Since class participation is important, students are expected to attend every class.

Course Goals

In this course you will be learning the rudiments of the mathematics of change. Upon completing the course, successful students will be able to work with functions algebraically, graphically, and numerically, and use them to model problems, understand the derivative conceptually as well as know how to calculate derivatives using the various techniques studied in class, improve their communication and technical writing skills by discussing mathematical problems and presenting solutions in written and oral form.

Grading

Your final grade will be based on weekly quizzes and class assignments/participation (15%), 2 hourly exams (30%), 3 labs (15%), 2 proficiency exams, 1 on limits (5%) and 1 on derivatives (10%) and a comprehensive final exam (25%). The following grading scale is used for assigning your final grade.

		$86-89$	$B+$	$76-79$	$C+$	$66-69$	$D+$	≤ 59 F
$93-100$	A	$83-85$	B	$73-75$	C	$63-65$	D	
$90-92$	$A-$	$80-82$	$B-$	$70-72$	$C-$	$60-62$	$D-$	

Proficiency Exams

There are two skill proficiency exams you must pass to complete this course, a limit skills test and a derivative skills test. It is essential that you become proficient in computing limits and derivatives and so you must pass the proficiency exams with a score of 80% or above. The exams will be given in class, without the use of calculators. If your score is under 80% on either of these exams you may retake them outside of class. Retakes can contribute a maximum of 80% of the possible points to your final grade.

Technology

A graphing calculator is required and the TI-83 is highly recommended. Students with different graphing calculators bear the responsibility of making it emulate the TI-83.

ACADEMIC HONESTY POLICY GUIDELINES
MATHEMATICS COURSES

The Mathematics and Computer Science Department supports and is governed by the Academic Honesty Policy of Moravian College as stated in the Moravian College Student Handbook (pp. 26-31). The following statements will help clarify the policies of members of the Mathematics faculty.

In all homework 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 an 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. For homework which is not to be graded, if you choose, you may work with your fellow students. You are responsible for understanding and being able to explain the solution of all assigned problems, both graded and ungraded. 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.