Functions and Derivatives
MA 108, Fall 2005

General Information
Instructor: Dr. Lee Chasen
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Class Schedule: MTWF 10:20 to 11:10 PM
Office Hours: Monday 1:20 – 2:20 p.m., Tuesday 11:20 – 12:20 p.m.,
Wednesday 1:20 – 2:20 p.m., Friday 9:10 – 10:10 a.m., and by appointment.
Textbook: Calculus for Business, Economics, Life Sciences, and Social Sciences, 10th edition
by Barnett, Ziegler, and Byleen

Course Goals
There are two primary branches of calculus, differential calculus and integral calculus. The primary
focus of this course is on differential calculus and some of its applications. Time permitting we will
also begin an investigation of integral calculus. After completing this course, successful students will:

▪ Be able to apply the tools of differential calculus to study and solve problems involving tangent
  lines and rates of change. These core concepts are used in virtually every area of science.
▪ Be able to work with functions verbally, algebraically, graphically, or numerically. Be able to
  model real life scenarios with functions and draw conclusions regarding those real life
  scenarios by leveraging your understanding of calculus and functions in general.
▪ Be able to apply the tools of differential calculus to develop a working understanding of the
  behavior of new and complicated functions (especially from a graphical point of view).
▪ Gain a sense of both the advantages and disadvantages of using technology to study the
  behavior of functions.

The Importance of Reading and Learning on Your Own
While I do not expect the average first or second year college student to be able to teach themselves
calculus from a textbook, I do hope that you will recognize the very high value placed upon this skill
by your future employers. With that in mind, I accept the responsibility of providing extra feedback in
the form of reading quizzes. These will be short quizzes designed to test whether or not you were able
to discern the key points in the reading material and begin, on your own, the process of understanding
the topic.

Attendance, Participation, and Organization
Your attendance and active participation in class is required. You will be

▪ asked to work either on your own or within a group to complete classroom activities.
▪ asked to transcribe completed homework problems from your notes. (Homework spot-checks)
▪ quizzed on the previous night’s reading assignment. (Unannounced Reading Quizzes)
▪ expected to arrive in class ready to ask or answer questions with regularity.
In short, you must come to class fully prepared to participate. You will be responsible for knowing which reading assignments are due and which homework problems might be collected. Since I will be providing quite a few handouts (including ones with the assignments listed), I suggest that you purchase a three ring binder.

Also, while the class will be notified at least one week in advance of any exam, (non-reading) quizzes will not be given without notice. Make up exams will only be provided in the case of a documented illness. Students will be excused from, or allowed to reschedule, a quiz, class work, or homework assignment at my discretion only. As a general guideline, you may assume that if the need is not due to a conference or some other school sponsored activity, and if we have not agreed upon rescheduling in advance, rescheduling will not be allowed. I tend to frown very heavily on rescheduling for an event if the students grades are not up to par.

Calculators and Technology

Graphing calculators will only be permitted during exams at my discretion. However, labs, homework, and classroom activities will, from time to time, require a graphing calculator. You should bring one to class regularly. That calculator must be comparable to a TI-83. Students using a different calculator will bear the responsibility for making it emulate the TI-83. (Note that I will only provide instructions for using the TI-83.)

Grading

In addition to the mandatory final exam, there will be three exams, a number of announced quizzes, regular (near daily) reading quizzes, and graded homework assignments. There will also be periodic homework spot-checks in which you will be asked to close your book and transcribe your solution to a particular homework problem. Your course grade will be computed as follows:

- Quizzes 10% of your grade
- Reading-Quizzes 7% of your grade
- Homework Spot-Checks (transcribed from your notes) 5% of your grade
- Activities & Classroom Participation (some activities may need to be completed outside of class) 8% of your grade
- Three Exams (Each worth 15%) 45% of your grade
- Cumulative Final Exam 25% of your grade

I reserve the right to make qualitative judgments in determining grades for all graded work and or the course. Also, while this syllabus is subject to change, in the event of a change, students will be notified via an addendum to the syllabus which would be distributed during a regular class period.

Tentative Exam Dates

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<th>Exam 1: Wednesday, September 21</th>
<th>Exam 2: Monday, October 24</th>
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<td>Exam 3: Monday, November 21</td>
<td>Final: To be announced</td>
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Extra Help
You are strongly encouraged to ask questions in class and to see either myself or the mathematics tutors for help outside of class as much as necessary. You will be informed soon about the tutor center hours.

Special Accommodations
Students with disabilities who believe that they may need special accommodations in this class are encouraged to contact the Learning Services Office as soon as possible to enhance the likelihood that such accommodations are implemented in a timely fashion.

Academic Honesty
For graded homework assignments and projects, you may use your class notes and any books or library sources, except a solutions manual. You may not use the help, orally or in written form, of any individual other than your instructors unless it is specifically a group assignment and you may not copy someone else’s work or let someone else copy your work. If an assignment is completed by a group of two or more people, each person who contributed to the work must put his or her name on the work. All in-class daily problems, quizzes and tests are to be done by you individually unless specifically stated by your instructor for a particular event.

The College academic honesty policy appears in your Student handbook; you are expected to be familiar with it. The Academic Honesty Policy Guidelines specific to mathematics classes are reiterated at the end of this syllabus. Please read them carefully. If you are unsure about the propriety of a particular procedure or approach, please consult with your instructor before continuing with the assignment.

Academic Honesty Policy Guidelines
MATHEMATICS COURSES
The Department of Mathematics and Computer Science 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 the 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.

All in-class or take-home 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.