Cornell University
Mathematics 111-Calculus

Section: 17
Lecture: MTWR 2:30-3:20 p.m. in Baker Laboratory, room G08.

Instructor:	Michael Kozdron
Office:	112 Malott Hall
Phone:	255-5012
Email:	kozdron@math.cornell.edu
Course Home Page:	`http://www.math.cornell.edu/~web111/`
Section 17 Home Page:	`http://www.math.cornell.edu/~kozdron/Teaching/111Fall02/`
Office Hours:	W 3:30-4:30 p.m., or by appointment

Required Texts:

- James Stewart, *Calculus: Concepts and Contexts, Single Variable*, 2nd edition.
- Texas Instruments TI-83 or equivalent graphing calculator.

Optional Text:

- James Stewart, *Study Guide for Calculus: Concepts and Contexts, Single Variable*, 2nd edition.

Course Description:
4 credits. Course topics include: functions and graphs, limits and continuity, differentiation and integration of algebraic, trigonometric, inverse trig, logarithmic, and exponential functions; applications of differentiation, including graphing, max-min problems, tangent line approximation, implicit differentiation, and applications to the sciences; the mean value theorem; and antiderivatives, definite and indefinite integrals, the fundamental theorem of calculus, substitution in integration, the area under a curve. Graphing calculators are used, and their pitfalls are discussed, as applicable to the above topics. Math 111 can serve as a one-semester introduction to calculus or as part of a two-semester sequence in which it is followed by Math 112 or 122.

Prerequisites:
Math 109 or 3 years of high school mathematics, including trigonometry and logarithms.

General Policies:
The policies listed on this page supplement the general Math 111 policies as detailed on the *Math 111 Fall 2002 Course Information* handout, and on the Math 111 website. It is expected that all students have carefully read this information.

Grading Information:
Your final grade will be determined by your performance in the course, including homework, quizzes, office visits, prelims, and the final exam.

Evaluation Type	Number	Percentage of Final Grade
Homework	16	9%
Quizzes	9	9%
Office Visits	2	2%
Prelim Exams	3	40%
Final Exam	1	40%

Homework:
As discussed on the *Words of Wisdom* handout, it is not possible to cover all of the required material in lecture. As a result, each student must take an active role in his or her own education. Mathematics is not a spectator sport. It cannot be learned passively only by watching the instructor lecture. Instead it must be learned by doing. Consequently, most of what you learn in this course will be the result of working exercises that are designed to reinforce key concepts, develop skills, and test your understanding of the material. Before you try working the exercises, however, do the reading assignment. Reading the text will help you review the important concepts before you start on the exercises. Some of the exercises are straightforward, others are very complex. After each class meeting, you should work all problems assigned from the section discussed that class. Assignments will take on the average 2-3 hours. You are encouraged to talk with your classmates about the homework; you might even want to form a study group to work together on the most difficult homework problems. However, all problems you submit must be your own work. ***It is dishonest, and a violation of Cornell's Code of Academic Integrity, to submit someone else's work as your own.***

Quizzes:
There will be a short quiz held in class on Wednesday during those weeks in which there is no prelim. Each quiz will last only 15 minutes, and will be worth 15 points. The questions will typically be relatively easy computations, and will NOT be indicative of problems on the prelims. The purpose of the quizzes is to ensure that the students are mastering the absolute basics of the course, and are attempting to keep up with course.

- Quiz 1: September 4, 2002
- Quiz 2: September 11, 2002
- Quiz 3: September 18, 2002
- Quiz 4: September 25, 2002
- Quiz 5: October 9, 2002
- Quiz 6: October 23, 2002
- Quiz 7: November 6, 2002
- Quiz 8: November 13, 2002
- Quiz 9: December 4, 2002

Office Visits:
Each student is required to schedule an appointment with me once before Fall break and once after Fall break to discuss the course and your progress.

Prelim Exams:
There will be three major term tests, known at Cornell as Prelim Exams, that will be given during the semester. All students in all sections of Math 111 write common prelims, which are jointly written by the Math 111 instructors. All prelims will be closed-book, and graphing calculators will be allowed, provided they cannot perform symbolic differentiation and integration, such as the TI-92. Each prelim will be a comprehensive test of all of the material covered on the syllabus before that prelim, including lectures, assigned readings, and homework assignments. Your lowest scoring prelim will be dropped, and not included in the computation of your final grade.

Final Exam:
All students in Math 111 write a common final exam which is written in committee by all the instructors for this course. As with the prelims, the final exam will be closed book and graphing calculators will be allowed, provided they cannot perform symbolic differentiation and integration, such as the TI-92. The final exam will be comprehensive and cover all of the material listed on the syllabus.

Exam Dates:
The locations of the prelims will be announced in class, and the location of the final exam will be determined by the Registrar near the end of the term.

- Prelim 1: **Tuesday, October 1, 2002, 7:30–9:00 p.m.**
- Prelim 2: **Tuesday, October 29, 2002, 7:30–9:00 p.m.**
- Prelim 3: **Thursday, November 21, 2002, 7:30–9:00 p.m.**
- Final Exam: **Thursday, December 12, 2002, 9:00–11:30 a.m.**

As is written in the *Fall 2002 Course and Time Roster*:

> These dates may include Religious Holidays for some students. NYS Education Law §224-A mandates that faculty make available an opportunity to make up any examination missed because of religious beliefs. In order to facilitate preparation of makeup exams, students intending to be absent in order to observe a religious holiday are requested to notify the instructor by September 6, 2002.

Policy for Missed Classes, Missed Prelims, and Missed Final Exam:

Students should familiarize themselves with the section on Class Attendance, Meeting Times, and Examinations on pages 13–15 of *2002–2003 Courses of Study*.

Web Site:
I have written a web site for this section. The URL is

`http://www.math.cornell.edu/~kozdron/Teaching/111Fall02/`.

I will be updating this site throughout the term and you will be able to download any handouts that you don't get in class. I've included information about the course, the textbooks, and calculus in general. There is also a Math 111 course web page which contains information useful for all students taking this course. That URL is

`http://www.math.cornell.edu/~web111/`.

Email:
Email will be a significant form of course related communication between both students and the instructor. Therefore, please check your email regularly for course updates and homework/prelim information. Feel free to email your questions to me. I will endeavour to respond within 24 hours. Should you not receive a reply within 24 hours, try sending the message again, or ask me in person if I received your mail.

Extra Help:
In addition to emailing me or visiting during office hours, there are many university-sponsored forms of extra help. The Mathematics Department operates a Math Support Center, located in 256 Malott Hall, where students are offered free tutoring. Either sign up on schedules posted outside the MSC or call 255-4658 to make an individual tutoring appointment. Cornell's Learning Strategies Center supplies free tutoring sessions and weekly review sessions in a non-credit course Math 011, which goes along with the ongoing Math 111 course. For more information on either the MSC or the LSC visit

`http://www.math.cornell.edu/Undergraduate/FTY/`.

Academic Integrity:
For a university community of scholars, academic integrity is the heart of intellectual life—both in learning and in research, to paraphrase the section on Academic Integrity in Arts and Sciences on page 411 of *2002–2003 Courses of Study*. Students should read carefully Cornell's Code of Academic Integrity and not assume they understand what integrity and cheating are and are not. Academic integrity most certainly implies more at the university than it did in high school. The standards of integrity are those that prevail in professional life. Students must acknowledge and cite ideas they adopt from others (not just direct quotations), and understand the general standards and policies of academic integrity, as well as specific expectations in individual courses. When in doubt, ask!

Therefore, students are expected to abide by Cornell University policies, including the campus Code of Conduct and the Code of Academic Integrity, as described in the *Policy Notebook*, and should pay particular attention to §I.C of the Code of Academic Integrity.