

MATH 111: Calculus with Analytic Geometry
Course Information
Fall Semester 2007

Administrative Information

Instructor:	Keir Lockridge
E-mail:	lockrikh@wfu.edu
Web Page:	http://www.wfu.edu/~lockrikh/111/
Office:	333 Manchester Hall
Office Hours:	M/T/W, 10:30 – 12:00, and by appointment.
Meeting times:	Section K, 1:00 – 1:50, M/T/W/F, MANC 125. Section L, 2:00 – 2:50, M/T/W/F, MANC 125. Section M, 9:00 – 9:50, M/T/W/F, GRNE 162.
Course Text:	<i>Single Variable Calculus, 6th edition</i> , by James Stewart.
Exams:	Midterms (3): 9/19, 10/24, 11/28, in class. Final: Thursday, December 13, 9 – 12, location TBA.
Grading:	17% Homework and class participation. 50% Midterms (weighted equally). 33% Comprehensive final exam.

Course Content

This is a first course in calculus. We will cover topics from the first 5 chapters of the course text. Broadly speaking, we are interested in developing analytical tools for understanding functional relationships (e.g., between elapsed time and population, or between the radius of a circle and its area). We will therefore begin with functions, their representations, and their role in mathematical modeling. After we work through the necessary background material on limits and continuity, we will study a tool that gives both qualitative and quantitative information about how functions change: the derivative. We will also use the derivative to find simple (linear) approximations to more complicated functions. Next, we will examine various applications of differentiation, including graphing and optimization problems. Finally, we will introduce the notion of integration, a sort of inverse operation to differentiation.

Class time will be divided into lectures (on Mondays, Tuesdays, and Wednesdays) and problem sessions (on Fridays). The focus of the problem sessions will be on working concrete examples derived from the week's lecture material.

Homework

Regular homework will be due once per week, usually on Tuesdays. *Late homework will not be accepted.*

I encourage you to work with other students on the homework. However, each person must write up their solutions individually. It is not acceptable, for example, to have one person make a record of the solution for the group and then let every one else copy it. Write up your work neatly and staple all sheets together in the correct order. Show all of your work, and mark your answers clearly. As in any discipline, clear and coherent exposition is very important in mathematics; I reserve the right to reject homework assignments

that are written poorly. Your lowest homework score will be dropped.

Exams

There will be three 50 minute midterm exams during the semester on the dates given above. There will be one comprehensive final exam on the date given above. You may not take the exams other than at the scheduled time and place except for serious illness, religious reasons, or other extraordinary circumstances of grave personal import. Predictable conflicts should be discussed with the instructor *well in advance*. If unable to take an exam for reasons of health, you must contact the instructor before the exam or as soon as medically possible thereafter, and you will have to provide a written medical excuse.

Support

I will hold regular office hours (see above), as will a graduate TA (time & place, TBA). If you need other help outside of class, please do not hesitate to contact me: I want you to be successful in this course.