Math 101 – Calculus I – Course Policies

PROFESSOR: Tommy Ratliff, Science Center 1309, x3968
EMAIL: tratliff@wheatoncollege.edu
HOME PAGE: http://www3.wheatoncollege.edu/tratliff/
OFFICE HOURS: Posted on webpage
And by appointment (Really!)
TEXT: *Calculus, Early Transcendental Functions, Third Edition*
by Smith and Minton

Overview

Very few things in this world are constant – Most things change: public opinion; your annual income; the speed of a car; your eating habits. Calculus is the language of change. It allows us to describe and predict the behavior of changing *quantities.*

One of the recurring themes throughout the semester will be the process of approximation: Although you may not be able to find a solution exactly, in most cases a good approximation serves just as well. One of the beautiful aspects of calculus is that quite often, by taking better and better approximations we can find a precise solution.

This course forms a Connection with Econ 102 or Econ 112 Introduction to Microeconomics as part of the Wheaton curriculum. We will pay some attention to applications of calculus to microeconomics, but you can certainly take this class without being enrolled in Microeconomics. First and foremost, this is a calculus course, and we will also cover some of the standard applications of calculus in the sciences. Whether you are a math major, a science major, or an economics major, this course will prepare you for further studies that depend upon the material in Calculus I.

I do not assume that you have had a calculus course before, but you will need a strong background in algebra and some familiarity with trigonometry.

Course Goals and Expectations

Two of the goals of this course are that you learn to read a math text and that you learn to communicate mathematics with other students. Mathematics is a very personal discipline that is best learned by *doing* rather than by observing.

Therefore, the class will be structured with some lectures to emphasize particular topics, but much of the time will be spent on in-class work. You will have a reading assignment for nearly every Monday, Wednesday, and Friday class meeting, and it is **extremely** important that you complete the reading before class. The class meetings are not intended to be a complete encapsulation of the course material, but instead will focus on the major concepts from the reading and clarifying the more subtle ideas in the course. The Tuesday meetings will not cover new material, but will be used primarily as lab days where you will work on problems to reinforce the course material. The three In-Class Exams and the Differentiation Exam will also be given during the Tuesday time slot.

You should expect to put in approximately 2 hours outside of class for each hour in class.
In other words, expect to spend about 8 hours per week on calculus outside of class. There will be some weeks where you spend more time (e.g. preparing for exams), and there may be some weeks where you do not spend the full 8 hours.

The Honor Code

We operate under the Wheaton Honor Code for all of your academic work at Wheaton. This carries certain freedoms and responsibilities for both you as a student and me as a professor. I take this quite seriously.

Before class on Monday January 30, you should read the Wheaton Honor Code at *http://wheatoncollege.edu/about/honor-code/* including all of the subsections:

Community Standards
Affirming Diversity
Plagiarism
Technology Acceptable Use
Conduct Off Campus
Judicial Procedures

Most likely, no Honor Code issues will arise this semester. If you are uncertain about whether a particular situation falls under the Honor Code, then please consult with me. However, if an Honor Code issue does come up, I will assume that you are prepared for the full consequences after having acknowledged that you have read and understood the policies and procedures.

Remember that you should write out, and sign, the following statement on all course work:

"I have abided by the Wheaton College Honor Code in this work."

Evaluation

The assignments for the semester fall into three broad groups: Exams, Daily Assignments, and Weekly Assignments. Your final grade will be determined by

Three In-Class Exams	45%
Comprehensive Final Exam	20%
Differentiation Exam	10%
Reading Assignments	5%
Problem Sets	10%
WebWork Assignments	10%

Exams

- **In-Class Exams:** The purpose of the exams is for you to demonstrate your understanding of the course material and, just as importantly, to give you feedback on where your understanding is strong and where you may need more work.

  I will give you a set of sample problems approximately a week before each exam, and we will have a question and answer session in class the day before each exam. For each exam, you will be allowed to bring an 8.5"×11" piece of paper, handwritten on one side, which you will turn in with the exam.

- **Final Exam:** The purpose of the Final Exam is for you to review the entire semester's content and see connections among the topics from the semester. The Final Exam will be comprehensive and will be based on the three In-Class Exams and the material covered at the end of the semester after the third In-Class Exam.

- **Differentiation Exam:** One of the fundamental skills you will learn this semester is differentiation, or finding an algebraic expression for the rate of change of a function. The Differentiation Exam will contain four or five problems, and you either get every problem correct, or you get no credit for the exam. However, you may retake a similar exam as many times as you need until you pass. The Differentiation Exam will be given in class on Tuesday March 6. If you pass the Exam (or any version of it) on or before Tuesday March 27, you will receive the full credit for the exam. After that date (until the end of classes) you will receive half credit. You are not allowed to take the exam after the end of classes.

Daily Reading Assignments

The purpose of reading the text *before* class is that if you are familiar with the basic concepts and definitions, then the class meetings can be devoted to the major ideas and subtleties of the material. Mathematical understanding is built in stages, and you will absorb the material more quickly if the class meetings are your *second* exposure to the fundamental ideas.

The reading assignments are posted on the course webpage and include two or three basic questions that you should be able to answer after you have read the section. You will submit your responses through Wheaton onCourse. See the *Suggestions for Reading a Math Book* on the course web page for more information.

Weekly Assignments

- **WebWork Assignments:** WebWork is an online system that gives you immediate feedback on whether or not you have answered the problem correctly, and these problems will be primarily computational in nature. You will have a WebWork assignment due most Monday evenings. The assignments will cover the material we discussed in class during the previous week. You will be allowed to drop ***one*** WebWork assignment at the end of the semester.

  Your initial login and password for WebWork are both set to your Wheaton wXXX number. You'll want to change your password after you login for the first time.

- **Problem Sets:** You will also have a Problem Set due most weeks that consists of problems from the textbook that are often more conceptual and require more explanation. These problems should be well-written and well-justified and will be graded by an advanced math student. The Problem Sets will be due at the *beginning of class* on Wednesdays, and will cover material from the previous week. You will be allowed to drop ***one*** Problem Set assignment at the end of the semester.

  I may occasionally collect some of the problems from the Tuesday labs that I will grade. These assignments will count in your Problem Set grade.

The WebWork Assignments and Problem Sets will be the most beneficial to you if you work on them throughout the week, not just on the few days before they are due. I strongly encourage you to discuss the homework with other students, but the answers you turn in should represent your own work.

I will leave some time at the beginning of class Tuesday and Friday to answer a few questions on the Problem Sets (Tuesday) and WebWork (Friday).

Class Attendance

Although class attendance is not a specified percentage of your grade, I will keep a class roll to help me determine borderline grades at the end of the semester. If you do miss class, you are responsible for the material that was covered.

Accommodations for Disabilities

In compliance with the Wheaton College policy and equal access laws, Dean Wilhelm is available to discuss appropriate accommodations that may be recommended for students with disabilities. Requests for accommodations are to be made during the first two weeks of the semester so that timely and appropriate arrangements can be made.

Students are required to register with Dean Wilhelm, Assistant Dean of Academic Resources and Disability Services, ADA/504 Coordinator, whose office is located in Kollett Hall, first floor at the Filene Center for Academic Advising and Career Services. Contact ext. 8215 to schedule an appointment, or email Dean Wilhelm at wilhelm_denyse@wheatoncollege.edu.

Getting Help

Please come see me during my office hours! If you have a conflict and cannot make my office hours, please call or email me and we can set up an appointment for another time. You should also take advantage of the tutoring hours in the Kollett Center.