

Math 104 – Calculus II – Course Policies

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TEXT: *Calculus* by Taalman and Kohn

Overview

This course is a continuation of the single-variable topics covered in Calculus I and a look at how some of these concepts can be extended to multivariable functions. We will only scratch the surface of multivariable calculus, but this should whet your appetite for the follow-up course Math 236 Multivariable Calculus.

One of the most fundamental, and most slippery, topics in mathematics is the relationship between the finite and the infinite. A recurring theme throughout the semester will be the relationship between an approximation and the exact value. One of the most beautiful aspects of calculus is that by taking better and better approximations and extending from the finite to the infinite, we will often be able to find a precise solution.

See the Syllabus on the course webpage for a detailed listing of the topics we will cover during the semester.

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.

One of the features that makes your Wheaton education so special is that we have face-to-face time in small classes to explore material together. The purpose of the pre-class assignments is to shift some of the delivery of content outside the class meetings so that you can build your understanding more deeply during the interactions in 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 Antidifferentiation 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.

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. 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.”

Working with Other Students

I strongly encourage you to work with other students outside of class because I believe mathematics is best learned through collaboration. However, you should not turn in identical work to your partner(s); the answers that you give to the homework assignments should represent your own thinking about solutions.

You should cite anytime that you work with another student on a Problem Set. If you fail to do this, it will be viewed as a violation of the Honor Code.

Evaluation

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

Three In-Class Exams	40%
Comprehensive Final Exam	15%
Antidifferentiation Exam	10%
Mini Projects	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 before each exam, and we will have a question and answer session 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 throughout 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.
- **Antidifferentiation Exam:** One of the fundamental skills you will learn this semester is antidifferentiation, or finding an antiderivative of a function. The Antidifferentiation Exam will consist of four problems and is graded with no partial credit. 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.

Mini Projects

One of the main goals of the projects is that you learn to communicate mathematics *precisely*, both verbally with your group and in writing. The Mini Projects will be group assignments where you will work in groups of two or three (of your choosing). You will have three or four Mini Projects during the semester.

You will have one class period to work together on each project, and your written report will be due a week or so later. Each member should proofread the entire paper for correctness, consistency and typos. I will give you more details on my expectations for the reports later in the semester.

Each assignment will receive a grade, and the group will determine how the points are allocated to each member. For example, if a group of three receives a 15 out of 20 on a project, then the group will have $3 \times 15 = 45$ points to distribute among them. I will be available to mediate this process, if necessary.

Daily/Weekly Assignments

- **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.

Notice that the Reading Assignments are due at 8:00 pm the night before class! This will give me enough time to review your responses before our class meetings.

- **WeBWorK Assignments:** WeBWorK is an online system that gives you immediate feedback on whether or not you have answered the problem correctly. The WeBWorK problems are primarily computational in nature. You will have a WeBWorK assignment due most Mondays during the semester. You will be allowed to drop *one* WeBWorK assignment at the end of the semester.
- **Problem Sets:** You will also have a Problem Set due most Wednesdays that consists of problems from the textbook that are more conceptual and require more explanation. These problems should be well-written and well-justified and will be graded by an advanced math student. You will be allowed to drop *one* Written Homework assignment at the end of the semester.

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.

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

Wheaton is committed to ensuring equitable access to programs and services and to prohibit discrimination in the recruitment, admission, and education of students with disabilities. Individuals with disabilities requiring accommodations or information on accessibility should contact Abigail Cohen, Assisant Dean of Accessibility and Assistive Technology at the Filene Center for Academic Advising and Career Services: cohen_abigail@wheatoncollege.edu or (508) 286-3794.

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.