

Math 111 - Calculus I

Syllabus and Course Procedures-Spring 2020

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Class web page: <http://www2.kenyon.edu/Depts/Math/Aydin/Teach/111/>

Office Hours: MW 11:10-12; T&R: 9:30-11 and by appointment

Class Meetings: MWF: 8:10-9 am, T: 8:10-9:30 am in Hayes 311

Textbooks: 1) Calculus I: A Guided Inquiry, Straumanis et al. Wiley.

2) Calculus Early Transcendentals, Briggs & Cochran, Third edition, Pearson

Course Content and Objectives: The first in a three-semester calculus sequence, this course covers the basic ideas, techniques and applications of differential calculus. Additionally, we will learn basics of integration. Chp1 is pre-calculus material and you will be responsible for reviewing the material in Chp1 on your own outside of class. We will employ a pedagogy known as POGIL (Process Oriented Guided Inquiry Learning). The objective of POGIL approach is to let you engage in the course material actively in a structured way for deep learning. Another important goal is to foster important qualities of mind that will be useful for life long learning such as critical thinking, communication, team work, information processing, and management. You will be working through carefully designed POGIL activities in a group of 3 or 4.

Grades: Final grades will be determined based on the performance in the following components.

Component	Percentage
Written Homework	10
4 Chapter Tests	36
Gateway Exam	8
Projects	15
Maple Quiz	3
Quizzes/Participation/Attendance/Engagement	10
Final Exam	20
Total	102 (2% bonus)

Exam Dates:

There will be 4 Chapter Tests, a gateway exam and a 3-hour comprehensive final exam in this course. You have many exams so that the stakes are relatively low on any one exam. More information about the gateway exam is provided on the course web page. We will have a chapter test after the chapters 2, 3,4, 5. A make-up exam will be administered only in the presence of an excused absence or prior approval from the instructor. The *approximate dates* of the exams are as follows. There may be changes to these dates.

Chapter Test I: Tue, Feb 4 (week 4)

Chapter Test 2: Fri, Feb 28 (week 7)

Chapter Test 3: Tue, Marc 31 (week 10)

Chapter Test 4: Wed, Apr 22 (week 13)

Gateway Exam: (first offering) Fri, Feb 21 (week 6)

Final Exam: Thursday, May 7, 6:30 pm

Daily Homework: As with most math classes, *homework is the most important aspect of this course*. Practice is a primary component of the mathematical learning process; thus homework problems will be assigned on a daily basis. Beyond just providing practice, the problems assigned are meant to be *extend* and *deepen* the understanding you have gained from the reading and the class period. The problems are not always easy, but the thought that goes into them always pays off in the long run. All of this means that much of the learning you do will be done outside of the classroom, but it doesn't mean that when class is dismissed you are on your own. I strongly recommend that you start on the homework as soon after class is over as possible. That way, if you get stuck on an assignment you can come to see me and get help *before* it is due.

Getting help during office hours (or other times in my office), as well as help from tutoring sessions will be an essential part of the learning process in this course.

Homework assignments are posted on course calendar page. Your homework should be legible, with problem number and final answer clearly indicated. Explanations in **complete sentences** are expected. Random math expressions floating in space will receive no credit. You must follow Math Department's guidelines for homework.

Homework Policies:

1. Written homework is due at the start of class on the assigned due date. Late homework will not be accepted. If you know that you will be missing class for some reason, you should turn in assignments **BEFORE** you leave. Extensions may be granted under extenuating circumstances, but these should be discussed with me in advance.
2. You may discuss homework problems with others but whatever you submit **must** be your own work and **must** be written up by you independently. You must follow [Math department's guidelines](#) for collaboration on homework.

3. Homework will be evaluated for neatness, completeness and correctness. Messy work that is difficult to read may receive no credit.

Maple Software and the Maple Quiz. In this course you will be using a powerful mathematical software package called *Maple*. It will be an integral part of the course (also used in other math courses), so you will be expected to become comfortable with its basic features. You will be given an introduction to the package early in the semester and there will be a short 15 minute quiz on it in week 2. The MAPLE is available for your use in classrooms and other computers in math department. You can also install it for free on your own computer. If you are interested in doing this, see the information on course web site. We assume no prior knowledge of MAPLE, so you will learn what you need as we go along.

Attendance, Engagement and Tardiness: Active participation in class activities as part of your group is critical for your success in this course. You want to be FULLY engaged and committed for your own learning as well your group members. Hence, coming to class every day is critical. After one unexcused absence, each unexcused absence will lower your overall course grade by $(n-1)*0.5\%$ where n is the number of unexcused absence. A total of 11 absences (whether excused or not) will result in automatic expulsion from the course. Tardiness and walking out of the classroom are really distracting for everyone. Unless there is a real emergency, please do not leave the classroom before the class is over. Two tardiness or leaving the room during the class will count as an unexcused absence. [See Math Dept's Class Attendance Policy.](#)

If you are late to the class, you will likely miss a quiz because there will be a short quiz at the beginning of most days on the material discussed in the previous class. Your performance on quizzes together with your level of engagement, enthusiasm, participation in class activities, and fulfilling your team role in POGIL will make up a significant part of your course grade. No make-up exam will be given without justified and documented excuses. *No work will be accepted late.*

Papers/Projects: You will write two mathematical papers in this course. Expressing your ideas in writing is important in any discipline including mathematics. These writing projects will focus on deep thought and clear expression. There are two main reasons for the projects. First, it's much easier to convince yourself that you understand something while you really don't if you do not have to explain it in English. The task of communicating forces you to confront issues in a genuine way. Secondly, while it is unlikely that you'll have to take derivatives of complicated functions in your life after school, it is likely that you will have to communicate technical information in a comprehensible way. In addition to two writing projects, there will be one Maple project. More information and details will be provided for each assignment.

Computer Use Policy in the Classroom: Inappropriate use of computers in the classroom is strictly prohibited and will not be tolerated. Inappropriate use of computers is anything unrelated to the classwork. Some examples are checking/writing e-mail, surfing the net, playing games, instant messaging etc.

Academic Honesty: The rules set forth in the 2019-2020 Course Catalog apply to all aspects of this course. <http://www.kenyon.edu/directories/offices-services/registrar/course-catalog-2/administrative-matters/academic-integrity-and-questions-of-plagiarism/> In general, any work submitted for credit must result directly from your own understanding, thoughts, and ideas. Presenting the work of others as your own is strictly prohibited. You must follow the guidelines given in this document in general and [Mathematics Department's guidelines](#) for written homework in particular. If you have any questions or uncertainty, please ask your professor for clarification.

Disabilities: If you have a disability which requires an accommodations in this class, please feel free to discuss your concern with me, but you should also consult Ms. Erin Salva, the coordinator of student access and support services (salvae@kenyon.edu, x5453). It is Ms. Salva who has the authority and expertise to decide on the accommodations that are proper for your disability. Though I am happy to help you in any way I can, I cannot grant any accommodations without a notification from Ms. Salva.

Statement on Title IX

Kenyon College seeks to provide an environment that is free of bias, discrimination, and harassment. If you have experienced any form of harassment/misconduct/assault, interpersonal violence, or stalking we encourage you to report it. If you report the incident to a faculty member, they must to notify Kenyon College's Civil Rights and Title IX coordinator of any information about the incident you provide. More information can be found at <https://www.kenyon.edu/directories/offices-services/ocr/discrimination/>

Please read the materials on the course web site for more information and advice.
<http://www2.kenyon.edu/Depts/Math/Aydin/Teach/111/>