

# Math 111 - Calculus I

## Syllabus and Course Procedures-Spring 2019

**Professor:** Noah Aydin    **Office:** RBH 319    **Phone:** 5674    **E-mail:** aydinn@kenyon.edu

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

**Office Hours:** MWF 10:10-11; T&R: 4:30-5:30 and by appointment

**Class Meetings:** MWF: 9:10-10 am, T: 8:10-9:30 am in RBH 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            |
|---|-----------------------|
| MyLabMath (Online Hmw)                      | 8                     |
| Written Homework                            | 8                     |
| 4 Chapter Tests                             | 32                    |
| Gateway Exam                                | 6                     |
| Projects                                    | 15                    |
| Maple Quiz                                  | 3                     |
| Quizzes/Participation/Attendance/Enthusiasm | 10                    |
| Final Exam                                  | 20                    |
| <b>Total</b>                                | <b>102 (2% bonus)</b> |

### Exam Dates:

There will be 4 Chapter Tests, a gateway exam and a 3-hour comprehensive final exam in this course. I am giving you so many exams to keep the stakes 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 1:** Tue, Feb 5 (week 4)

**Chapter Test 2:** Fri, March 1 (week 7)

**Chapter Test 3:** Tue, Apr 2 (week 10)

**Chapter Test 4:** Wed, Apr 24 (week 13)

**Gateway Exam:** (first offering) Fri, Feb 22 (week 6)

**Final Exam:** Thursday, May 9, 8:30 am

**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. But beyond just providing practice, the problems I assign 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.**

There are two types of homework in this course: 1) Online exercises via MyLabMath website associated with the textbook. Additional information about this is provided separately. 2) Written homework from the textbook to be turned in in class. Homework will be assigned and collected regularly. Check the course calendar page for details 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 hmw.
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 rapidly 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. I will 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 should be FULLY engaged and committed for your own learning as well your group members. Hence, coming to class every day is critical. Being late to the class is disruptive and it is detrimental to your group's success. Frequent tardiness to the class will be considered as absence. And if you are late to the class, you will miss a quiz because there will be a short quiz at the beginning of most days on the material discussed in the previous class. Each unexcused absence will have a negative impact on your grade. 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. This is a start toward doing that. 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 2018-2019 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](mailto: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.

### **Title IX**

Kenyon College seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of sexual harassment/misconduct/assault, we encourage you to report this. If you report this to a faculty member, she or he is obligated to notify our college's Title IX coordinator about the basic facts of the incident (you may choose whether you or anyone involved is identified by name). The Title IX coordinator will assist you in connecting with all possible resources both on and off campus. Kenyon College's Title IX and VAWA Policy is available at <http://www.kenyon.edu/directories/offices-services/title-ix/policy/>

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