MATH 116 Fall 2021
Calculus II

Instructor: James Phillips
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Office: Clapp 308
Office Hours: Monday and Thursday 1:00 - 2:00 (in person), Wednesday 10:00 - 12:00 (on Zoom), and by appointment

Textbook: Stewart, *Calculus: Concepts and Contexts*, 4^{th} ed. Other good references include *Calculus* by Stewart and *Apex Calculus* by Hartman. The former gives proofs for many of the results we will see in this course and is open source. For a more rigorous (but still approachable) treatment, you may want to look at *Calculus* by Spivak.

General Policy: Students are expected to attend class and, in the event of an absence, are responsible for making up any missed material. Students are also encouraged to participate and ask questions during class. Calculus can be difficult, but it is learned best through practice; I am happy to work with students in class and in office hours to ensure the best understanding of the subject. In the end, the skills we will stress are *critical thinking* and *problem-solving*.

In class, please be courteous: arrive on time and stay until in the end of class. Lectures are a good starting point, but the best understanding comes from getting your own hands dirty: give the material a look before lecture, and spend some time reviewing and practicing afterward.

During this term, I will do my best to keep things as steady as possible, but our flexibility may very well be called on. Thus, communication will be vital. Even in a typical semester, I understand that things do come up. **If a circumstance arises that affects your performance in the course, you should inform me *before* it influences your grade.** If anything were to arise, we can work together to figure out an appropriate plan.

If this class were to move online at any point during the term, some or all of the following may need to be modified. Any changes will be announced before they can affect anyone's grade.

Class Design: Before each Monday and Thursday class meeting, students will watch a quick video detailing the basics of that day's topic. Links to each video lecture will be posted to Sakai approximately 24 hours in advance of its corresponding class. It is each student's responsibility to watch the video before this class. The vast majority of our class meetings will be spent working on classwork. You are encouraged to work with the other students in the room on the classwork. I will spend the time moving among the groups, answering questions, and leading discussions on solutions at various points during class.

Homework: Homework will be assigned weekly on Friday and answers should be submitted no later than 7:00 PM EST the following Friday. Each assignment will be posted to both Sakai and Gradescope. Solutions will be submitted through Gradescope. I encourage you to use calculators sparingly on homework, but computations will

sometimes require them. You are also welcome to work together on homework, but any work submitted must be your own. Late homework will not be accepted. Your lowest two homework scores, however, will be dropped.

Warm-ups: Starting with the second class period, there will be a short collection of warm-up problems due on Gradescope due at 12:00 PM EST the day of each Monday and Thursday class meeting. I intend for these assignments to be relatively quick and will often use them to either give some practice for the previous class's material or lead into the current lesson. These will be graded primarily based on effort and engagement.

Quizzes: There will be a quiz every other Wednesday, beginning September 22, covering the material from the previous two calendar weeks. Quizzes will be administered during the Wednesday class meeting. You will have the entire class meeting to complete the quiz. You may use your notes on the quizzes but no other outside material is permitted. I anticipate that there will be six quizzes total, but this may change. Your lowest quiz score will be dropped at the end of the semester.

Exams: There will be a self-scheduled final exam following the term. Like quizzes, the final exam will contain a mix of computational and theoretical questions covering the material from the entire term.

Reflections: At the end of each week, I will ask you to complete a short reflection to let me know how things are going in the class. Often, I will ask what went well during the week and solicit any suggestions for change during the upcoming week.

Grading: Each of the above components contributes the following amount to your overall grade in the course:

Homework: 25%
Warm-ups: 10%
Quizzes: 40%
Refletions: 5%
Final: 20%

Final grades will be assigned according to the following standard:

Numerical Range	Letter Grade
$98 \leqslant \text{grade} \leqslant 100$	A+
$93 \leqslant \text{grade} < 98$	A
$90 \leqslant \text{grade} < 93$	A-
$87 \leqslant \text{grade} < 90$	B+
$83 \leqslant \text{grade} < 87$	B
$80 \leqslant \text{grade} < 83$	B-
$77 \leqslant \text{grade} < 80$	C+
$73 \leqslant \text{grade} < 77$	C
$70 \leqslant \text{grade} < 73$	C-

The above table should be viewed as a "floor" for grades; that is, if you receive a final score in a given range, you should expect a grade no less than the one specified above. Grades below 70 will be handled on a case-by-case basis.

Honor Code: On homework, collaboration is permitted and encouraged. You should feel free to talk to other students while you are in the process of thinking about a problem. You will need periods of concentrated individual study, but it is also helpful to spend time talking about the subject. However, solutions should be written up on your own, to gain practice and confidence in your ability to problem solve. Exams and quizzes are completed individually. Feel free to direct any questions to me.

Accommodations: If you have a disability or condition, either long-term or temporary, and need reasonable academic adjustments in this course, please contact Accessibility and Disability Resources (ADR) to get a letter outlining your accommodation needs, and submit that letter to me. You should request accommodations as early as possible in the semester, or before the semester begins, since some situations can require significant time for review and accommodation design. If you need immediate accommodations, please arrange to meet with me as soon as possible. If you are unsure but suspect you may have an undocumented need for accommodations, you are encouraged to contact (ADR). They can provide assistance including screening and referral for assessments. If the course schedule includes quiz or exam dates that conflict with your religious observances, please let me know at least one week in advance in order for us to make an alternative arrangement.

Resources: Drop-in online tutoring is also available through the Math Department. A schedule will be posted when one is available.