MAC 2233: Survey of Calculus I
Summer B 2023 Syllabus

Class and Instructor Information

Class Time: **MTWRF Period 3** (11:00am-12:15pm)
Location: **Fine Arts C 120**
Instructor: **Julian Michele**
Email: **jmichele@ufl.edu**
Office: **Little Hall 417**
Office Hours: **TBA**, or by appointment
LIT 215 Hours: TBA

Course Description

MAC 2233 is the first in the two semester sequence MAC 2233 and MAC 2234 surveying the important ideas of calculus but emphasizing its applications to business, economics, life and social sciences. The course covers important calculus topics such as: limits, differentiation, applications of the derivative, introduction to integration and its applications including area.

A minimum grade of C (not C–) in MAC 2233 satisfies three credits of the university General Education Mathematics requirement. The General Education Objectives for Mathematics (and other subject areas) can be found here: https://undergrad.aa.ufl.edu/general-education/gen-ed-program/subject-area-objectives/

Prerequisites

We assume a comprehensive background in precalculus for this course. We may briefly review some precalculus topics, but we will not spend a lot of time on it.

To enroll in MAC 2233, you must have earned a grade of C or better in MAC 1140, precalculus algebra, or MAC 1147, precalculus; earned calculus credit through an exam or earlier coursework; or have taken the ALEKS placement assessment and attained the required minimum score. You may take the ALEKS assessment through the ONE.UF homepage https://one.uf.edu; click on Placement under My Online Services. For more complete information, check the page https://student.ufl.edu/. Note the following paragraph:

"The Department of Mathematics encourages you to take the assessment even if you have met one of the prerequisites for MAC 2233. You may need to review your algebra skills and your placement assessment can provide information and specific areas for additional study."

You can check with either an advisor in your college, the MAC 2233 course coordinator, or an advisor in the math department (the main office is Little 358) to be sure that you are eligible for MAC 2233.

There is a needs assessment in the first week of the course to give students a good idea if they have adequate precalculus background for the course, or if they should consider dropping back to a precalculus course prior to taking this course.

Course Materials and Resources

Course Materials

There are no required materials for this course; specifically, there is no required textbook, clicker, or online homework code that you must purchase for this course.

Canvas

E-learning Canvas, a UF course management system, is located at https://elearning.ufl.edu. Use your Gatorlink username and password to login. All course information including your grade, course homepage, syllabus, office hours, test locations, mail tool, discussion forum, free help information, etc. can be accessed from this site. You are responsible for verifying that your grades are accurate. There is no grade dispute at the end of the semester (see below for the One Week Policy).

We will also be utilizing Canvas for homework assignments; see the Homework section under Course Content below.

Calculators

No calculators are allowed on quizzes or exams, nor are they required for any other coursework. However, a graphing calculator and Wolframalpha are useful as study and learning tools when used appropriately. Some other useful tools are the online graphing calculator Desmos (https://www.desmos.com), and the app GeoGebra (https://www.geogebra.org) to help you as you learn the material. Keep in mind however, mathematics is a collection of ideas that are not mastered through calculator skills. **You need to know how to solve problems without a calculator.**

Xronos Modules

You will be given access to the learning modules from an online version of this course. This is essentially a "textbook" that includes lecture videos and some written text explaining each topic, as well as some interactive practice along the way. These modules are optional, but you may find it helpful to go through them as a supplement to our classes (I will try to cover material in the same order as the modules to make it easy to follow along). They are located under the "Modules" tab on Canvas.

Note that these modules use an online system known as Xronos, which we will also be using for homework assignments. However, unlike your homework, we are not using the learning modules for grades or required assignments, so you do not need to worry about them syncing with Canvas.

Work and Expectations

This course will be moving fast! We need to cover a semester of calculus in only 6 weeks. Be prepared to work every day to keep up with the material and to meet deadlines. Be prepared to start learning on the first day of classes. We will begin talking about limits on day 1!

On another note, this course (like all mathematics) is not just about memorization; we also aim to teach mathematical reasoning and problem-solving skills. This means not every problem will be a carbon copy of the examples we do in class. **You will come across problems on homework, quizzes, and exams that you may not have seen before.** Your goal is to be able to recognize what techniques to use in an unfamiliar situation, and to put that together with some mathematical reasoning to solve the problem. Be prepared to think!

Furthermore, remember that math, by its nature, is cumulative. If an exam has listed content that will be tested, that means that the content is the focus of the exam, but not the only skills necessary for the exam. Most of the content that we will cover in this course will be used in future content of this same course, and content from previous courses (such as algebra and precalculus) will be essential throughout. Thus you should consider all exams as "cumulative" with the listed content for the exam being the primary focus of the exam.

Finally, if you have any questions or concerns about what is expected for work, please ask me for clarification.

Assignments and Makeups

Homework

You will be assigned a homework problem set for each lesson we cover in class. Homework will be delivered via the online platform Xronos, which is free of charge and accessible through Canvas. More details will be provided in class.

Furthermore, at the beginning of the semester, you will have a Syllabus Quiz on Canvas that will count as a homework assignment. You can retake this quiz as many times as you'd like to achieve a better score; the highest score you attain before the deadline will be used for your final grade on this assignment. The purpose of the Syllabus Quiz is to help ensure that you understand and remember course policies and other information conveyed in this syllabus.

Your lowest 2 homework grades will be dropped.

Quizzes

There will be several graded quizzes each week in class, for a total of 12 quizzes. Quizzes will be administered at the end of the period and you will have about 15 minutes to complete them. Your lowest 2 quiz grades will be dropped.

Class Participation

Your class participation grade for most days will largely be based on the completion of an "exit ticket" at the end of class. These are essentially ungraded quizzes to measure how well you are grasping the material. You are required to write solutions, but your solutions do not need to be correct to get credit for class participation. Exit tickets are essentially your "attendance" for each

day of class. You will also be given an opportunity to provide feedback for the course or ask questions as part of your exit ticket. If there is no exit ticket on a particular day, your class participation for that day will simply be based on attendance.

Furthermore, classes are not merely lectures. We will pause several times throughout each class to work on practice problems. You may work on these problems alone or with classmates, but I expect you to do them!

At the beginning of the semester, completion of the Needs Assessment on Canvas will also count towards class participation. You will get full credit for simply completing the Needs Assessment (no matter your score).

Exams

There will be three exams (excluding the final exam) throughout the semester. These exams will be administered in the evening in **Little Hall 201** on the following dates:

Exam 1: July 17
Exam 2: July 27
Exam 3: August 9

Exams will begin at 7:00pm and end at 8:30pm. You MUST ensure that you do not have any conflicts with these exam times/dates. Contact me ASAP if there are any issues with this.

Final Exam

The final exam is cumulative and will have two portions: a take-home portion, and an in-class portion.

- **Take-home portion**: You will complete this on your own time near the end of the semester (exact dates TBA). You may use class notes, past assignments, and the resources available to you on Canvas, but you may not work with other people or use the Internet (outside of Canvas and course materials) to answer questions. The take-home portion will be graded and returned to you before the in-class portion. I recommend using the feedback you receive on the take-home portion to help study for the in-class portion.
- **In-class portion**: This portion of the exam will be administered during our usual class time, in our usual classroom, on the last day of classes (August 11).

Makeups

You must send me documentation of an excused absence (for example, a doctor's note if you are sick) to make up any assignment. Makeups must be completed within 1 week of the original assignment (and, for assignments towards the end of Summer B, before the last day of classes ends). Different assignment types have different makeup policies:

- **Homework:** No makeups or extensions will be given for homework assignments, since homework is submitted online and you will have several days to complete each assignment. No late homework will be accepted, even if it's only a few minutes past the deadline. Do not wait until the last minute to complete your homework, just in case you run into technical difficulties. If you have completed your homework but are experiencing technical difficulties, you must contact me before the deadline with proof that you have completed the assignment and/or proof that you have earned the grade that you should receive.

- **Quizzes/Exit Tickets:** These assignments may be made up within the guidelines explained above. There is no hard limit on the number of makeups for these assignments, but an excessive number of makeups may lead me to stop offering them to you unless you have extenuating circumstances.
- **Attendance:** If there is no exit ticket on a particular day, you cannot make up attendance, but your grade will be excused if you have documentation of an excused absence. You must contact me about missed attendance and provide documentation within 1 week of the day of class you missed.
- **Exams:** You may only make up *one* exam (excluding the final) throughout the semester. Once again, you must follow the guidelines above to be allowed a makeup. Makeup exam dates TBA.
- **Final Exam:** There are no makeups or extensions for the take-home portion of the final. Since course grades must be submitted only a few days after classes end, opportunities to make up the in-class portion will be minimal. You must ensure that you are present in class on the day of the in-class final. If you absolutely cannot come to class that day, contact me (preferably ahead of time) and I will see what arrangements can be made.

UF policies regarding attendance and excused absences may be found here: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/

Course Schedule

Below is a schedule showing the lessons we will cover, as well as dates for exams and quizzes. We may need to make slight adjustments if some lessons take longer or shorter than expected, but the exam dates are firm.

Monday	Tuesday	Wednesday	Thursday	Friday
3-Jul	4-Jul	5-Jul	6-Jul	7-Jul
Welcome to MAC2233! Lesson 1: Limits	Independence Day No Classes	Lesson 2: Limit Laws	Lesson 3: Continuity Quiz 1	Lesson 4: Indeterminate Forms
10-Jul	11-Jul	12-Jul	13-Jul	14-Jul
Lesson 5: Asymptotes Quiz 2	Lesson 6: Velocity	Lesson 7: Derivatives Quiz 3	Lesson 8: Derivatives as Functions	Lesson 9: Differentiation Rules I Quiz 4
17-Jul	18-Jul	19-Jul	20-Jul	21-Jul
Review 1 Exam 1 (Lessons 1-8)	Lesson 10: Differentiation Rules II	Lesson 11: Exponentials and Logarithms Quiz 5	Lesson 12: Logarithmic Differentiation	Lesson 13: Maxima and Minima Quiz 6
24-Jul	25-Jul	26-Jul	27-Jul	28-Jul
Lesson 14: Curvature Quiz 7	Lesson 15: Applications of Derivatives I	Lesson 16: Applications of Derivatives II Quiz 8	Review 2 Exam 2 (Lessons 9-15)	Lesson 17: Applications of Derivatives III
31-Jul	1-Aug	2-Aug	3-Aug	4-Aug
Lesson 18: Antiderivatives Quiz 9	Lesson 19: Area Under the Curve	Lesson 20: Definite Integrals Quiz 10	Lesson 21: Indefinite Integrals	Lesson 22: Fundamental Theorem of Calculus Quiz 11
7-Aug	8-Aug	9-Aug	10-Aug	11-Aug
Lesson 23: u-Substitution	Final Review I Quiz 12	Review 3 Exam 3 (Lessons 16-23)	Final Review II	In-Class Final (All Lessons)

Due dates for any other assignments (for example, homework) will be posted on Canvas.

Grading

Your numerical grade for the course will be calculated as follows:

Homework 15%
Quizzes 18%
Class Participation 7%
Exams 40%
Final Exam 20%

The cutoffs for letter grades are as follows:

A	**90%**	**C**	**67%**
A-	**87%**	**C-**	**64%**
B+	**84%**	**D+**	**62%**
B	**80%**	**D**	**57%**
B-	**76%**	**D-**	**56%**
C+	**73%**	**E**	**Less than 56%**

You will receive the letter grade corresponding to the highest cutoff you have met or surpassed. Grades will **not** be rounded or curved. This means you will still get an A- if your numerical grade is 89.9999%, etc. Extra assignments for individual students to improve a grade are not possible.

Information on current UF grading policies may be found here:
https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/#gradestext

One Week Policy

All grade concerns must be settled within one week of the receiving the grade on the assignment (and, for assignments towards the end of Summer B, before course grades must be submitted). This means you need to pay close attention to your grades throughout the course to ensure there are no errors. There will be no review of disputed points at the end of the semester.

Incomplete Policy

A grade of I (incomplete) will be considered only if you meet the Math Department criteria which is found at https://www.math.ufl.edu. If you meet the criteria you must see the instructor before the final to be considered for an I. A grade of I only allows you to make up your incomplete work. You cannot redo any previously completed work.

Additional Resources and Expectations

Online Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period

opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Advising and Help

For all concerns with MAC2233, please talk to your instructor! Office hours will be posted and are regular times when I am available to answer questions, discuss grades, advise students on future classes, or help students in any available way. You do not need an appointment to visit during office hours. If you need to meet outside of office hours, please contact me for an appointment.

In addition, there are several other free resources available to you:

The Teaching Center Math Lab, located at SE Broward Hall, offers free informal tutoring. You may want to attend different hours to find the tutors with whom you feel most comfortable. Also the Little 215 Tutoring Center provides free tutoring for math courses up to Calculus 3. Go to https://www.teachingcenter.ufl.edu to find their hours. You can also request free one-on-one tutoring.

A list of qualified tutors for hire is available at https://www.math.ufl.edu.

Honor Code

All students are required to abide by the Academic Honesty Guidelines which have been accepted by the Uni- versity. The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust and respect. Students are expected to pursue knowledge with integrity.

Violations of the Academic Honesty Guidelines shall result in judicial action and a student being subject to the sanctions in paragraph XIV of the Student Code of Conduct. The conduct set forth hereinafter constitutes a violation of the Academic Honesty Guidelines (University of Florida Rule 6C1-4.017). You may find the Student Honor Code and read more about student rights and responsibilities concerning academic honesty at the link https://www.dso.ufl.edu/sccr/.

Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting: https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. If a student does not supply the appropriate documentation in a timely fashion, the instructor may not be able to accommodate the student in a timely manner.