Calculus with Analytic Geometry I
MAC 2311 Lecture
4 Credit Hours
Fall 2022

Instructor:	Dr. Corey Stone
Office:	LIT 441
E-mail:	c.stone@ufl.edu
Office Hours:	T Periods 5 and 6 (11:45 AM - 1:40 PM, in office)

Lectures

Section 3623 & 3154	MWF Period 3 (9:35 AM - 10:25AM)	LIT 201
Section 6013 & 3653	MWF Period 4 (10:40 AM - 11:30 AM)	LIT 225
Section 2H92 & 2H93	MWF Period 5 (11:45 AM - 12:35PM)	LIT 237

Prerequisites Appropriate score on the ALEKS placement assessment, or MAC 1147 (or its equivalent, both MAC 1140 and MAC 1114) with a C (2.0) or better.

Course Description MAC 2311 is the first in the three-semester sequence MAC 2311, MAC 2312, and MAC 2313 covering basic calculus. Intended topics will include functions and inverse functions, limits, continuity, differentiation of algebraic and trigonometric functions; applications of derivatives; integration and the fundamental theorem of calculus; applications of definite integrals.

MAC 2311 begins with a short review of precalculus topics. **You should already be competent in working this material**. We **strongly recommend** that students who are having difficulty with the precalculus review material consider first taking MAC 1147, a four credit precalculus course reviewing essential precalculus skills.

A minimum grade of C (not C-) in MAC 2311 satisfies the four credits of general education requirement and also satisfies the pure math portion of the state Writing/Math requirement.

General Education Designations
This course fulfills 4 credit hours of General Education Mathematics requirements
(https://undergrad.aa.ufl.edu/general-education/gen-ed-program/subject-area-objectives/

Course Goals This course will introduce students to the ideas of limit, derivative, and integral for functions of a single variable. Upon completion, students will be able to understand the theory as well as applications. The course will prepare students for MAC 2312.

Required Materials There are no required textbooks for this course. We will make use of a free online textbook available at Openstx Calculus Volume 1. Also, in this course we will use the online platform Xronos which has been developed at UF and is supported by the Office of the Provost and the College of Liberal Arts and Sciences. Xronos is accessible through the Canvas site. More details will be given in class.

E-Learning Canvas:	E-learning canvas, a UF course management system, is located at elearning.ufl.edu. Use your Gatorlink username and password to login. All course information including your grade, course homepage, syllabus, lecture outlines, office hours, test locations, mail tool, discussion forum, free help information, etc. can be accessed from this site.

You are responsible for vrifying that your grades are accurate. **You have one week after a score has been posted to contact your TA if you believe there has been a recording error. There is no grade dispute at the end of the semester.**

Please note: Important course information is clearly communicated in this course guide, the MAC 2311 homepage and links in Canvas, and announcements in lecture and discussion. Due to the volume of email received by the instructor and TAs, we cannot reply to each request for this well publicized information. If you cannot find your answer in the resources above, there is also a **Discussion Forum** available in Canvas. Please use this to post questions and to supply answers to your fellow students.

E-mail — All communication between student and instructor and between students should be respectful and professional. All official class communications will be sent only to the ufl.edu addresses. Students are responsible for acquiring, checking their email accounts regularly, and any class information sent to their ufl.edu account. Please be sure to sign your name to your e-mails.

Lectures — This class will take a different form than you may be used to. I will not lecture for the whole period, if at all. You will be responsible for watching pre-recorded lectures online at the course site in Canvas **BEFORE** coming to class. We will spend most of our class time working on problems and exploring the concepts of calculus in small groups. There is a lot of research showing that students learn and retain information better in this environment. Come to class ready to participate. Once again, you **NEED** to watch the videos and do the lecture quizzes online before you come to class. If you do so, then you will ask better questions and you will perform better in the course.

Lecture Video Quizzes — After watching the lecture videos online, you will take a short quiz on the material covered in the video. **These quizzes must be completed before the in-class lecture covering this material**. Only three attempts are allowed per lecture quiz. The online lecture quizzes are worth 5% of your final grade, and the two lowest lecture quiz grades will be dropped at the end of the semester.

Discussion Sections — Discussion sections meet once a week on either Tuesday or Thursday depending on which section you are enrolled in. These meetings give you a valuable opportunity for open discussion of the lecture material and assigned problems in a smaller class setting. **Attendance in discussion is required as it is where assessment of your skills will take place**. However, one period per week is generally not adequate to answer all questions. Be sure to take advantage of the opportunities outside of class for additional help.

Your main resource is your discussion leader. He or she will be available during office hours (or by appointment) to answer your questions about the course material. Your TA is responsible for grading and recording all quiz scores. You must retain <u>all</u> returned papers in case of any discrepancy with your course grade. As mentioned above, **you should check Canvas regularly and consult with your TA if you have any questions about recorded grades. All grade concerns must be taken care of <u>within one week</u> of receiving the score.**

If you have concerns about your discussion class which cannot be handled by your TA please contact your instructor.

Tests

Mid-term exam dates are as follows:

Thursday, September 22

Wednesday, October 19

Wednesday, November 16

Makeup: Wednesday, December 7, 5:10 PM - 6:40 PM (tentative)

Final: Saturday, December 10 10:00AM - 12:00 PM

There will be three (paper and pencil) mid-terms throughout the semester. The midterms will consist of two parts. Part 1 will be multiple choice questions. Part 2 of the mid-term exams will consist of long response problems.

These exams will take place in the evening, from 8:30 PM to 10:00 PM.

The FINAL EXAM will take place on Saturday, December 10 from 10:00 AM to 12:00 PM. Make a note of this now and please inform any interested parties (e.g. your parents) who may be making plans for you around that time (such as purchasing place tickets to fly home, etc.).

Each mid-term is worth 15% of your final grade while the final exam is worth 25% of your final grade. No mid-term grades will be dropped.

Online Homework

In this course we will be using the online platform Xronos which is free of charge and will be explained during class. Online homework assignments will be assigned daily and must be completed by the specified due date. **No assignments can be submitted after the due date**. Online homework assignments are worth a total of 7% of your final grade. There will be a total of two dropped homework grades at the end of the semester.

All assignments will have posted due dates and these due dates will not be extended under any circumstance.

Personal computer issues, will NOT be a reason to offer any type of extension.

Class Participation

Attendance in class both in lecture and discussion section is mandatory. Students who come to class and participate are more likely to do well in the course. Participation will be a part of your grade and how it is calculated will be explained in class. It will be a total of 8% of your grade and will be based upon both your attendance in lectures and discussion sections. The two lowest class participation scores will be dropped at the end of the semester.

Further, following university policy, you may expect a penalty (additional lost points) for attending fewer than 75% of your classes.

Discussion Quizzes	There will be weekly quizzes during your discussion, based on the homework. Quizzes make up a total of 10% of your grade. The quizzes will be administered by your TA and any questions about the grades should be directed to him or her.
	There are no make-ups for missed discussion quizzes, but the lowest two discussion quiz grades will be dropped at the end of the semester.
Make-up Policy	All make-up work must be arranged with your instructor.
Exam Conflicts	Per (catalog.ufl.edu/ugrad/current/regulations/info/exams.aspx): "Exams may be held Monday - Friday from 8:20-10:10PM (periods E2-E3) for the fall and spring terms. If other classes are scheduled during an exam time, instructors must provide make-up class work for students who miss class because of an assembly exam. If two exams are scheduled at the same time, assembly exams take priority over time-of-class exams. When two assembly exams conflict, the higher course number takes priority. Instructors giving make-up exams will make the necessary adjustments." If MAC 2311 is the lower course number, students must inform their instructor in person at least ONE WEEK in advance of the exam date so that appropriate accommodations can be made. Otherwise it may not be possible to reschedule.
Make-up Exams	If you are participating in a UF sponsored event or religious observance, you may make up an exam only if you make arrangements with your instructor at least ONE WEEK PRIOR to the event. You must present documentation of a UF sponsored event. **If illness or other extenuating circumstances cause you to miss an exam, contact your instructor (no later than 24 hours after the exam) by email. Then, as soon as possible after you return to campus, bring the appropriate documentation to him in Little Hall during office hours. You will be allowed to sign up to take a makeup exam at the end of the semester on TBA.**
Make-up Discussion Quizzes	Students who miss a discussion quiz due to illness,severe family emergency, and/or severe weather as outlined in the UF Attendance Policies and wish to make up the quiz must contact their instructor through the Dean of Students office CARE team at https://care.dso.ufl.edu/instructor-notifications/ with appropriate documentation. Once the instructor receives notice from the CARE team covering the dates during which the quiz took place the student will be able to attend to make up a discussion quiz. Students who miss a discussion quiz due to other reasons as outlined in the UF Attendance Policies (e.g. special curricular requirements, religious holidays,official university activities, etc) must contact their instructor either through emailor in person at least ONE WEEK in advance of the quiz. Quiz makeups will take place the following days of the Spring 2022 semester: Tuesday January 25, Tuesday TBD In addition, two discussion quiz grades will be dropped at the end of thesemester.
Make-up Xronos HW	There are no make-ups as a certain number of these assignments are dropped at the end of the semester.
Incomplete	Students who are currently passing a course but are unable to complete the course because of illness or emergency may be granted an incomplete grade of I which will allow the student to complete the course within the first two weeks of the following semester. See the policy on http://www.math.ufl.edu/fac/incompletes.html. If you meet the criteria, you must see your instructor before finals week to be considered for an I. An I only allows you to make up your incomplete work, not redo your work.

Grading

Xronos Homework: 7%

Lecture Quizzes: 5%

Discussion Quizzes: 10%

Participation: 8%

Midterm Exam Average (3 mid-term exams): 45%

Final Exam: 25%

Your final grade will rounded to the nearest hundredth and a letter grade will be given using the following grading scale:

Grading Scale

90.00-100 A	87.00-89.99 A-	84.00-86.99 B+	80.00-83.99 B
77.00-79.99 B-	74.00-76.99 C+	67.00-73.99 C	64.00-66.99 C-*
60.00-63.99 D+	57.00-59.99 D	54.00-56.99 D-	0-53.99 E

*__Note__ A grade of C- DOES NOT give Gordon Rule or General Education credit!

For those take the S-U option: 67.00-100 S   0.00-66.99 U

Approval of the S-U option must be obtained from your instructor. The deadline for filing an application with the Registrar and further restrictions on the S-U option are given in the Undergraduate Catalog.

For a complete explanation of current policies for assigning grade points, refer to the UF undergraduate catalog:

catalog.ufl.edu/ugrad/regulations/info/grades.aspx

NOTE: We will not review disputed points at the end of the semester. All grade concerns must be settled within one week of the return of the paper.

Free Help

In addition to attending your discussion section regularly and visiting your discussion leader, lecture, or the course coordinator, during their office hours, the following aids are available.

- The Math Help Center in Little 215 is open for drop-in assistance with homework Monday through Friday from 9:30 to 4:00. It is staffed by mathematics graduate students and undergraduate assistants. Please note that this space is not designed for intense one-on-one tutoring, but rather as a resource for quick questions and explanations. You should not expect the staff to help you if you have not at least begun your homework and have specific questions. Moreover, they absolutely will not assist you with quizzes or any other such work.

- The Teaching Center Math Lab, located in SE Broward Hall, is a tutorial service staffed by trained math and science students to provide help with your calculus questions and homework. Tutors will be glad to provide guidance on specific problems after you have attempted them on your own. You may want to attend different hours to find tutors with whom you feel most comfortable. You can also request free one-on-one tutoring.

The math lab also offers a more structured tutoring program for MAC 2311, called **supplemental instruction**. A tutor, assigned specifically to MAC 2311, provides weekly help sessions. More details will be provided in lecture.

In addition, the Broward teaching center tutors hold reviews on the evenings before each exam. They also provide videos of review and sample test problems. Check the webpage, teachingcenter.ufl.edu, for a map of the location, tutoring hours, and test review dates and locations. **All students are encouraged to use the teaching center**.

- Office of Academic Support offers free one-on-one and small group tutoring sessions to an UF students. See http://oas.aa.ufl.edu/tutoring.aspx for details.

- Textbooks and solutions manuals are located at reserve desks at Marston Science Library.

- Private Tutors: If after availing yourself of these aids, you feel you need more help, you may obtain a list of qualified tutors for hire at www.math.ufl.edu. Seach "tutors".

- The Counseling Center has some informative information on developing math confidence. Go to
  http://www.counseling.ufl.edu/cwc/DevelopingMath-Confidence.aspx
  for information on math confidence and information on joining the Academic Confidence Group.

Calculators   Calculators are **NOT** permitted on exams and discussion assignments. Please avoid using a calculator on homework as it will not help you prepare for the exams.

Cell Phones   Cell phones must be turned off (not on vibrate) before coming to class. Use (defined as having one physically in your hand) of a cell phone during a test or quiz will be considered contact with another person and will be viewed as a form of academic dishonesty because I cannot be assured in such a circumstance that you have not taken a picture of the test/quiz or sent a text message to someone. As a result, **using a cell phone during a test or quiz for any reason will result in an automatic grade of zero and possible disciplinary action.** Wait until after you have left the room and are finished with the test/quiz to use it.

Music Players   iPods and other music players are not to be used during class tests and quizzes. Having one out during a test or quiz will result in a grade of zero and possible disciplinary action.

Students with Learning Disabilities   Students requesting class and exam accommodations must first register with the Dean of Students Office Disability Resource Center (DRC), www.dso.ufl.edu/drc/. That office will provide a documentation letter via email to your instructor. This must be done as early as possible in the semester, **at least one week before the first exam**, so there is adequate time to make proper accommodations.

Diversity and Inclusion	The Mathematics Department is committed to diversity and inclusion of all students. We acknowledge, respect, and value the diverse nature, background and perspective of students and believe that it furthers academic achievements. It is our intent to present materials and activities that are respectful of diversity: race, color, creed, gender, gender identity, sexual orientation, age, religious status, national origin, ethnicity, disability, socioeconomic status, and any other distinguishing qualities.
Academic Honesty Guidelines	All students are required to abide by the Academic Honesty Guidelines which have been accepted by the University. 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. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act 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).
	The Mathematics Department expects you to follow the Student Honor Code. We are bound by university policy to report any instance of suspected cheating to the proper authorities. You may find the Student Honor Code and read more about student rights and responsibilities concerning academic honesty at the link www.dso.ufl.edu/sccr/.
	In addition, we remind you that lectures given in this class are the property of the University/faculty member and may not be taped without prior permission from the instructor and may not be used for any commercial purpose. Students found to be in violation may be subject to discipline under the Student Conduct Code.
Evaluations	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/.

Important Fall 2022 Academic Dates and Deadlines

Classes Begin	Wednesday, August 24
Late Registration	Wednesday, August 24 - Tuesday, August 30 (11:59 PM)
Add deadline/Drop deadline (full refund)	Tuesday, August 30 (11:59 PM)
Withdrawal deadline (25% refund)	Friday, September 16
Withdrawal deadline (no refund)	Monday, November 21 (11:59 PM)
Classes end	Wednesday, December 7

Holidays (no classes)

Labor Day	Monday, September 5
Homecoming	Friday, October 7- Saturday, October 8
Veterans Day	Friday, November 11
Thanksgiving Break	Wednesday, November 23 - Saturday, November 26

Note: Information in this syllabus is subject to change. Any changes will be announced in class or through

e-mail.

Course Schedule

- Week 0 (8/24 - 8/26) Introduction, Precalculus Review

- Week 1 (8/29 - 9/2) Review, Introduction to Limits, Limit Laws and Types of Limits

- Week 2 (9/5 - 9/9) Limit Laws and Types of Limits continued, Continuity

- Week 3 (9/12 - 9/16) Indeterminate forms, definition of the derivative, Derivative as a function

- Week 4 (9/19 - 9/23) Derivative Rules (Power and Exponential), Exam 1 Review, Product and Quotient Rule

- Week 5 (9/26 - 9/30) Applications of Derivatives, Derivatives of Trig Functions, Chain Rule

- Week 6 (10/3 - 10/7) Chain Rule continued, Implicit Differentiation

- Week 7 (10/10 - 10/14) Implicit Differentiation continued, Derivatives of Inverse Trig Functions, Related Rates

- Week 8 (10/17 - 10/21) Related Rates continued, Review for Exam 2, Linear approximation

- Week 9 (10/24 - 10/28) Extreme Value Theorem, Mean Value Theorem, First Derivative Test

- Week 10 (10/31 - 11/4) Concavity/Second Derivative Test, L'Hopital's Rule

- Week 11 (11/7 - 11/11) Curve Sketching, Applied Optimization

- Week 12 (11/14 - 11/18) Applied Optimization continued, Review for Exam 3, Antiderivatives

- Week 13 (11/21 - 11/25) Areas and Riemann Sums

- Week 14 (11/28 - 12/2) Definite Integrals, Fundamental Theorem of Calculus, Net Change Theorem

- Week 15 (12/5 - 12/7) u-substitutions, Final Exam Review