

# Calculus with Analytic Geometry I

## MAC 2311 Lecture

4 Credit Hours

Fall 2022

Instructor: Dr. Stephen Adams  
Office: LIT 326  
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Office Hours: MWF Period 7 (1:55 PM - 2:45 PM)  
T Periods 7-8 (1:55 PM - 3:50 PM)

### Lectures

MWF Period 8 (3:00 PM - 3:50 PM) LIT 225

<u>Teaching Assistant</u>	<u>Office</u>	<u>Office Hours</u>	<u>Email</u>
TBA	TBA	TBA	TBA

<b>Discussion Section</b>	<b>Time</b>	<b>Location</b>	<b>TA</b>
3143	T Period 8 (3:00 PM - 3:50 PM)	LIT 233	TBA
3144	T Period 9 (4:05 PM - 4:55 PM)	LIT 219	TBA

**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 Objectives and Learning Outcomes** This course is a mathematics (M) course in the UF General Education Program. Completing this course with a minimum grade of C will satisfy the student's State Core Mathematics requirement of the UF General Education Program. Courses in mathematics provide instruction in computational strategies in fundamental mathematics including at least one of the following: solving equations and inequalities, logic, statistics, algebra, trigonometry, inductive and deductive reasoning. These courses include reasoning in abstract mathematical systems, formulating mathematical models and arguments, using mathematical models to solve problems and applying mathematical concepts effectively to real-world situations.

After successful completion of this course students will have demonstrated competency in the following Student Learning Outcomes (SLOs):

- **Content:** *Students demonstrate competence in the terminology, concepts, theories, and methodologies used within the discipline.* After completing this course students will gain a knowledge of limits, differentiation, and integration of functions.
- **Communication:** *Students communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline.* Throughout this course students will communicate mathematical ideas verbally in their discussion sessions as well as through writing on discussion quizzes and exams.
- **Critical Thinking:** *Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.* Students will apply their knowledge to solve problems concerning topics that include, but are not limited to, evaluation of limits, differentiation of functions using the definition of the derivative and differentiation rules, implicit differentiation, logarithmic differentiation, linear approximations, related rates, curve sketching, antidifferentiation, Riemann sums, areas under curves, and  $u$ -substitution.

#### Courses 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](http://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 verifying 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 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.** 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 all 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 within one week of receiving the score.**

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

## Exams

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, 10:00 AM - 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 plane 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 - UF during Term Assembly Exam Policy** ([catalog.ufl.edu/ugrad/current/regulations/info/exams.aspx](http://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 Xronos HW:** There are no make-ups.
- **Make-up class participation points:** There are no make-ups.

**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](http://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.**

**Extra Credit**

Each midterm exam has 105 points on it but is taken out of 100 points. The final exam has 110 points on it but is taken out of 100 points. These are your only opportunities to earn extra credit this semester. No other extra credit will be offered. **EMAILS ASKING FOR EXTRA CREDIT OR TO ROUND UP YOUR GRADE AT THE END OF THE SEMESTER WILL BE IGNORED.**

## 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](http://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](http://www.math.ufl.edu). Search "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.

<b>Cell Phones</b>	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, <b>using a cell phone during a test or quiz for any reason will result in an automatic grade of zero and possible disciplinary action.</b> Wait until after you have left the room and are finished with the test/quiz to use it.
<b>Music Players</b>	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.
<b>Students with Learning Disabilities</b>	Students requesting class and exam accommodations must first register with the Dean of Students Office Disability Resource Center (DRC), <a href="http://www.dso.ufl.edu/drc/">www.dso.ufl.edu/drc/</a> . That office will provide a documentation letter via email to your instructor. This must be done as early as possible in the semester, <b>at least one week before the first exam</b> , so there is adequate time to make proper accommodations.
<b>COVID Policy</b>	<p>In response to COVID-19, the following recommendations are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones.</p> <ul style="list-style-type: none"> <li>• If you are not vaccinated, get vaccinated. Vaccines are readily available and have been demonstrated to be safe and effective against the COVID-19 virus. Visit <a href="http://one.ufl.edu">one.ufl.edu</a> for screening / testing and vaccination opportunities.</li> <li>• If you are sick, stay home. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 to be evaluated.</li> <li>• Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work.</li> </ul>
<b>Diversity and Inclusion</b>	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.
<b>Academic Honesty Guidelines</b>	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/scer/](http://www.dso.ufl.edu/scer/).

### **In-Class Recording**

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student

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

### **Holidays (no classes)**



Labor Day	Monday, September 5
Homecoming	Friday, October 7
Veteran's 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 clearly announced in class or through e-mail.