



UNIVERSITY OF
CENTRAL FLORIDA

MAC 2311C - Calculus with Analytic Geometry I

Section: 0202

College of Sciences

Department of Mathematics

Course Information

Term: Fall 2024

Class Meeting Days: TR

Class Meeting Time: 15:30 - 17:20

Class Meeting Location: ENG2 0205

Modality: P

Credit Hours: 4.00

Instructor Information

Jason Swanson

Office Location: MSB 202E

Office Hours:

TR 2:55-3:20, R 5:20-6:35, W 11-1:05 (Zoom)

Email: Jason.Swanson@ucf.edu

Course Description

MAC 2311C COS-MATH 4(3,2)Calculus with Analytic Geometry I: PR: Appropriate score on the UCF Math Placement Exam, or MAC 1140C with a C (2.0) or better and MAC 1114C with a grade of C (2.0) or better, or combination of appropriate score on the UCF Math Placement Exam and C (2.0) or better in MAC 1114 or MAC 1140C , or MAC 2147 or C.I. In this course, students will develop problem solving skills, critical thinking, computational proficiency, and contextual fluency through the study of limits, derivatives,

and definite and indefinite integrals of functions of one variable, including algebraic, exponential, logarithmic, and trigonometric functions, and applications. Topics will include limits, continuity, differentiation and rates of change, optimization, curve sketching, and introduction to integration and area. The NC grading policy applies to this course. Student Learning Outcomes: Students will calculate a limit, derivative, or integral using appropriate techniques. Students will determine the continuity and differentiability of a function. Students will use limits and derivatives to analyze relationships between the equation of a function and its graph. Students will apply differentiation techniques to model and solve real world problems. Students will use integrals and the fundamental theorem of calculus to analyze the relationship between the integral of a function and the related area. Fall, Spr, Sum

General Education Program (GEP)

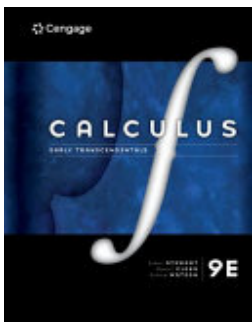
This course is a GEP core course (black diamond) for the Mathematics Foundation and fulfills the requirement for GEP 7.

Student Learning Outcomes

After successful completion of this course, students will learn to:

- Students will calculate a limit, derivative, or integral using appropriate techniques.
- Students will determine the continuity and differentiability of a function.
- Students will use limits and derivatives to analyze relationships between the equation of a function and its graph.
- Students will apply differentiation techniques to model and solve real world problems.
- Students will use integrals and the Fundamental Theorem of Calculus to analyze the relationship between the integral of a function and the related area.

Course Materials and Resources



Calculus: Early Transcendentals

ISBN: 9781337613927

Authors: James Stewart, Daniel K. Clegg, Saleem Watson

Publisher: Cengage Learning

Publication Date: 2020-01-23

Course Assessment and Grading Procedure

| Assignment | Percentage of grade |
|------------|---------------------|
| attendance | 5% |
| homework | 10% |
| test 1 | 25% |
| test 2 | 25% |
| final | 35% |

Grading Scale

| Letter Grade | Percentage |
|--------------|---------------------------------|
| A | 90 - 100 |
| B | 80 - 89 |
| C | 70 - 79 |
| NC | Below 70 and submitted all work |
| Otherwise F | |

Policies for Course Grade

Per university policy, you are allowed to submit make-up work (or an equivalent, alternate assignment) for authorized university-sponsored activities, religious observances, or legal obligations (such as jury duty). If this participation conflicts with your course assignments, I will offer a reasonable opportunity for you to complete missed assignments and/or exams. The make-

up assignment and grading scale will be equivalent to the missed assignment and its grading scale. In the case of an authorized university activity, it is your responsibility to show me a signed copy of the Program Verification Form for which you will be absent, prior to the class in which the absence occurs. In any of these cases, please contact me ahead of time to notify me of upcoming needs.

Course Accessibility

The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need access to course content due to course design limitations should contact the professor as soon as possible. Students should also connect with [Student Accessibility Services \(SAS\)](#) (Ferrell Commons 185, sas@ucf.edu, phone 407-823-2371). For students connected with SAS, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential course access and accommodations that might be necessary and reasonable. Determining reasonable access and accommodations requires consideration of the course design, course learning objectives and the individual academic and course barriers experienced by the student. Further conversation with SAS, faculty and the student may be warranted to ensure an accessible course experience.

Academic Integrity

Students should familiarize themselves with UCF's Rules of Conduct at [Student Conduct and Integrity Office](#). According to Section 1, "Academic Misconduct," students are prohibited from engaging in:

1. Unauthorized assistance: Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course-related material also constitutes cheating.
2. Communication to another through written, visual, electronic, or oral means: The presentation of material which has not been studied or learned, but rather obtained through someone else's efforts and used as part of an examination, course assignment, or project.

3. Commercial Use of Academic Material: Selling of course material to another person, student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the university and the instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, course syllabi, tests, quizzes, labs, instruction sheets, homework, study guides, handouts, etc.
4. Falsifying or misrepresenting the student's own academic work.
5. Plagiarism: Using or appropriating another's work without any indication of the source, thereby attempting to convey the impression that such work is the student's own.
6. Multiple Submissions: Submitting the same academic work for credit more than once without the express written permission of the instructor.
7. Helping another violate academic behavior standards.
8. Soliciting assistance with academic coursework and/or degree requirements.

Responses to Academic Dishonesty, Plagiarism, or Cheating

Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, [The Golden Rule](#). UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and respond to academic misconduct when necessary. Penalties for violating rules, policies, and instructions within this course can range from a zero on the exercise to an "F" letter grade in the course. In addition, an Academic Misconduct report could be filed with the Office of Student Conduct, which could lead to disciplinary warning, disciplinary probation, or deferred suspension or separation from the University through suspension, dismissal, or expulsion with the addition of a "Z" designation on one's transcript.

Being found in violation of academic conduct standards could result in a student having to disclose such behavior on a graduate school application, being removed from a leadership position within a student organization, the recipient of scholarships, participation in University activities such as study abroad, internships, etc.

Let's avoid all of this by demonstrating values of honesty, trust, and integrity. No grade is worth compromising your integrity and moving your moral compass. Stay true to doing the right thing: take the zero, not a shortcut.

Reporting an Incident or Issue

If you believe you have experienced abusive or discriminatory behavior by any faculty or staff member, contact the Office of Institutional Equity [online](#) or at 407-823-1336. You can also choose to report using the UCF Integrity Line and can report anonymously or as yourself at 1-855-877-6049 or using the [online form](#). UCF cares about you and takes every report seriously. For more information see the [Reporting an Incident or Issue Webpage](#).

Title IX

Title IX prohibits sex discrimination, including sexual misconduct, sexual violence, sexual harassment, and retaliation. If you or someone you know has been harassed or assaulted, you can find resources available to support the victim, including confidential resources and information concerning reporting options at [Let's Be Clear](#) and [UCF Cares](#).

For more information on diversity and inclusion, Title IX, accessibility, or UCF's complaint processes contact:

- Title IX – OIE – [Office of Institutional Equity](#) & askanadvocate@ucf.edu
- Disability Accommodation – Student Accessibility Services – [Student Accessibility Services](#) & sas@ucf.edu
- [Access and Community Engagement](#) (including the Ginsberg Center for Inclusion and Community Engagement, Military and Veteran Student Success, and HSI Initiatives)
- UCF Compliance and Ethics Office – [Compliance, Ethics, and Risk Office](#) & complianceandethics@ucf.edu
- The [Ombuds Office](#) is a safe place to discuss concerns.

Deployed Active-Duty Military Students

Students who are deployed active duty military and/or National Guard personnel and require accommodation should contact their instructors as soon as possible after the

semester begins and/or after they receive notification of deployment to make related arrangements.

Campus Safety

At UCF Public Safety and Police, safety is the top priority. Emergencies on campus are rare, but if one should arise, it's important to be familiar with some basic safety and security concepts.

- In an emergency, always dial 911.
- Every UCF classroom has an **Emergency Procedure Guide** posted on a wall near the door, which will show you how to respond to a variety of situations. This guide can also be found online [here](#).
- In the event of an active threat, remember **AVOID, DENY, DEFEND**. Choose the best course of action and act immediately. Watch the video [here](#) to learn more.
 - **AVOID**. Pay attention to your surroundings and have an exit plan. Get as much distance and as many barriers between you and the threat as quickly as possible.
 - **DENY**. When avoiding is difficult or impossible, deny the threat access to you and your space. Lockdown by creating barriers, turning the lights off and remaining quiet and out of sight. Make sure your cell phone is silenced, but do not turn it off.
 - **DEFEND**. When you are unable to put distance between yourself and the threat, be prepared to protect yourself. Commit to your actions, be aggressive and do not fight fairly. Do whatever it takes to survive.
- For emergencies on campus, UCF will utilize the [UCF Alert](#) system. All UCF students, faculty and staff are automatically enrolled to receive these email and text alerts, however, it's a good idea to frequently ensure your [contact information is up to date](#).

Financial Aid Accountability

All instructors/faculty are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please

complete this activity by the end of the first week of classes or as soon as possible after adding the course. Failure to do so may result in a delay in the disbursement of your financial aid.

Class Schedule

| Week | Topic |
|-------------|--------------------------|
| 1 | Sections 1.4–1.5, 2.1 |
| 2 | Section 2.2 |
| 3 | Sections 2.3, 2.5–2.6 |
| 4 | Sections 2.7–2.8, 3.1 |
| 5 | Sections 3.2–3.3, review |
| 6 | Test 1, Section 3.4 |
| 7 | Sections 3.5–3.6 |
| 8 | Sections 3.9–3.10 |
| 9 | Sections 4.1–4.3 |
| 10 | Section 4.4, review |
| 11 | Test 2, Section 4.5 |
| 12 | Sections 4.7, 4.9, 5.1 |
| 13 | Sections 5.2–5.4 |
| 14 | Section 5.5 |
| 15 | review |