



FLORIDA GATEWAY COLLEGE

MAC2311 001 – Calculus I

Spring 2026 – A16

Mon/Weds. 8:00 – 9:40am

009-134

Instructor Information

Name: Dr. Paula L. Gavin-Jewett

Email: paula.gavinjewett@fgc.edu

Office: 009-122

Office Hours: TBA

Virtual Hours: TBA

Office Phone: 386-754-4249

Other Available Hours: If you need to meet at a different time or online, just email me or call.

Course Information

Credits: 4

Requirements Met: AATR, GE, GEC, GR

General Education Area: Mathematics

Prerequisites: C or higher in MAC1140 and MAC1114.

Course Description

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 in one variable, including algebraic, exponential, logarithmic, and trigonometric functions, and applications. Topics will include limits, continuity, differentiation and rate of change, optimization, curve sketching, and introduction to integration and area.

Overview of Course

Calculus I covers the following topics: plane analytic geometry, concept of the limit, continuity, the derivative with applications, the indefinite integral, the definite integral, the Fundamental Theorem of Calculus, and exponential, logarithmic and other transcendental functions.

Required Text

Calculus, 12th edition, Larson and Edwards, Cengage, 2022.

Calculators

Students are required to use scientific calculators, however, a graphing calculator such as the TI-84 is strongly recommended. All CAS calculators are **NOT** allowed at all. Graphing calculators will not be permitted on graphing portions of exams. Students are not permitted to borrow calculators or to use cell phones or any other electronic devices as calculators during exams.

Aims and Purposes

This course is designed for students whose primary interest is in mathematics, engineering, the physical sciences, or the life sciences. It is the first of a three-course sequence.

Gordon Rule

6A-10.030(2)(b), FAC, commonly known as the "Gordon Rule" states that each college shall require a minimum of six semester hours of mathematics as part of the graduation requirements for the A.A. Degree. Students who take six hours of math at the level of MAC 1105 (College Algebra), MGF 1130 (Mathematical Thinking), STA 2023 (Elementary Statistics), or higher, WITH A FINAL GRADE NO LOWER THAN A "C", will be considered to have fulfilled the mathematics requirement.

Contributions to Goals of Department, Division, and College

1. Prepare the student for further work in calculus.
2. Partially fulfills mathematical requirements for the following areas of study: pre-forestry, pre-engineering, business, pre-medicine, natural sciences, social sciences, etc.

General Learning Outcomes

- **Critical Thinking:** Students will logically evaluate, analyze, and synthesize information.
- **Quantitative Reasoning:** Students will apply mathematical concepts and reasoning to draw valid conclusions.

Course Learning Outcomes

Successful completion of this course will include meeting the following course-specific learning requirements. Students will demonstrate their mastery of the subject material through collected HW, quizzes, unit exams, and a final exam. Students will:

Course-Specific Learning Outcome	Method of Assessment
• Calculate a limit, derivative, or integral using appropriate techniques.	• Apply differentiation techniques to model and solve real world problems
• Determine the continuity and differentiability of a function.	• Use integrals and the fundamental theorem of calculus to analyze the relationship between the integral of a function and the related area.
• Use limits and derivatives to analyze relationships between the equation of a function and its graph.	

Critical Dates – Spring 2026

Date	Event
Monday, January 12	Spring A16 classes start
Monday – Friday, January 12-16	Add/Drop period for Spring A16
Monday, January 19	Martin Luther King, Jr. Day – No Classes
Monday, February 16	President's Day – No Classes
Friday – Friday, March 20-27	Spring Break
Friday, April 10	Deadline for student-initiated withdrawals – A16
Thursday, May 7	Course End Date – A16

Course Outline and Tentative Schedule of Classes

	Topic	Textbook Section	Week of
Unit 1: Limits			
1	Function Notation, Difference Quotient, & Domain/Range	P.3	1/12/26
2	A Preview of Calculus	1.1	
3	Finding Limits Graphically and Numerically	1.2	
4	Evaluating Limits Analytically	1.3	1/19/26
5	Continuity and One-Sided Limits	1.4	
6	Infinite Limits	1.5	1/26/26
7	The Derivative and Tangent Line Problem	2.1	
Unit 1 Exam			2/2/26
Unit 2: Derivatives			
8	Basic Differentiation Rules and Rates of Change	2.2	2/9/26
9	The Product and Quotient Rules and Higher-Order Derivatives	2.3	
10	The Chain Rule	2.4	
11	The Natural Logarithmic Functions: Differentiation	5.1	2/16/26
12	Exponential Functions: Differentiation	5.4	
13	Bases Other than e and Applications	5.5	2/23/26
14	Implicit Differentiation	2.5	
15	Related Rates	2.6	
Unit 2 Exam			3/2/26
Unit 3: Applications of Differentiation			
16	Extrema on an Interval	3.1	3/9/26
17	Rolles' Theorem and the Mean Value Theorem	3.2	
18	Increasing and Decreasing Functions and the First Derivative Test	3.3	
19	Concavity and the Second Derivative Test	3.4	3/16/26
20	Limits at Infinity	3.5	
21	A Summary of Curve Sketching	3.6	
22	Optimization Problems	3.7	3/30/26
23	Differentials	3.9	
Unit 3 Exam			3/30/26
Unit 4: Integrals			
24	Antiderivatives and Indefinite Integrals	4.1	4/6/26
25	Integration by Substitution	4.5	
26	The Natural Logarithmic Functions: Integration	5.2	
27	Exponential Functions: Integration	5.4	4/13/26
28	Area	4.2	
29	Riemann Sums and the Definite Integrals	4.3	
30	Fundamental Theorem of Calculus	4.4	4/20/26
Unit 4 Exam			4/20/26
Unit 5: Inverse Trigonometric Functions and Hyperbolic Functions			
31	Inverse Trigonometric Functions: Differentiation	9.1	4/27/26
32	Inverse Trigonometric Functions: Integration	9.2	
33	Hyperbolic Functions	9.3	
Review for Final			4/29/26
Departmental Cumulative Final Exam			Wednesday, 05.05.26 8:30a - 11:15am

Student Expectations

Attendance

Attendance at each class is expected of all students without exception. A student absent from class bears the full responsibility for all subject matter and procedural information discussed in class. Expect each class to meet as scheduled unless notified otherwise by a Mathematics Instructor in person at the beginning of the class period. To prepare for each class, you should read the section to be covered and study the text examples.

To be successful in this class, it is imperative students spend time working through problems outside of class. This is a 4-credit hour class which is widely thought in academics that students should spend 4-hours a week on material (in class) AND 4-hours a week on practice (homework) for a total of 8-hours per week.

Homework

Homework will be given at the end of each class period and due the following class. If you need to miss class, you will have to send it to me by the end of the class. Please submit your answers in a ***neat, organized, and in a presentable order*** on paper. NO LATE WORK WILL BE ACCEPTED.

Courtesy and Student Conduct Code

Students should not arrive late to class without an explanation afterward or leave early from class without advance permission. Self-restraint, courtesy and consideration for fellow students and the lecturer are imperative. In particular, please turn off cell phones. See *The Student Code of Conduct* in the Student Handbook.

Testing Procedure

Tests will be given as indicated on the course outline. Other graded assignments and quizzes may be given as deemed necessary by the instructor. Each instructor will distribute a copy of his/her test make-up policy. The Testing Center will only be utilized for testing in emergencies, where the instructor or another faculty/staff member cannot proctor the exam. The Student Success Center (SSC) **cannot** be used at all. **All exams, including the final, will be given as written or online, proctored exams.** If you need to miss an exam, you need to contact the instructor to arrange for another test date that is PRIOR to the exam due date. Makeup exams will only be permitted on a verifiable emergency basis.

Formulas & Cheat Sheets

It is the policy of the department that formulas and other notes are not allowed on any unit exam or departmental final exam unless noted in the course outline. These assessments should be “closed book and notes.”

Grading Policies (Student Performance Measures)

Learning Activities

1. Chapter Exams (4)	50%
2. Departmental Final Exam	20%
3. Homework	20%
4. Exam Revisions:	<u>10%</u>
	100%

Grading Scale

Individual instructors may assign B+, C+, or D+ grades.

A – 90% - 100%	
B – 80% - 89.9%	B+ – 87% - 89.99%
C – 70% - 79.9%	C+ – 87% - 89.99%
D – 60% - 69.9%	
F – 59.9% or below	
I – Incomplete (assigned for reasons as stated in college catalog)	
W – Voluntary withdrawal by student before the withdrawal date	

Returning Grades

I will grade most assignments within one week of the due date. For more expansive assignments, I will return them within two weeks. This gives me ample time to provide constructive, useful feedback to help you progress and grow as a student in this course.

Student Support and Tech Needs

Succeeding in Any College Mathematics Course

Develop a systematic study routine between class meetings - study your notes, read the book and work the assigned problems. Your personal motivation and work ethics are the key to your success. You are ultimately responsible for mastering the material in any course.

Getting Help with Your Math

If you are having trouble with your math, **seek help early in the semester!** FGC has help available for you at the following places...

1. Your **Instructor** is available during regular office hours and sometimes by appointment to help with specific homework assignments. If your instructor is busy when you drop by, come back at another time.
2. Form a **Study Group** with other students enrolled in the same course. Meet at a regular time and a place (e.g., the library, the math lab, an empty classroom).
3. The **Student Success Center** offers free peer-tutoring for most mathematics courses. The Center is currently located in the back of Building 008. You may also reach them online through the Tutoring button in Canvas.
4. **Brainfuse Online Tutoring** – located within your course in Canvas, Brainfuse offers 24/7 online tutoring services that are free of charge.
5. **Khan Academy** can be found at <http://www.khanacademy.org> and has several videos on multiple topics.

All of these services are offered to you **free** at Florida Gateway College! Take advantage of the available resources and **SUCCEED** in your math course!

Basic Technical Requirements

This course requires students to have access to a computer and the internet. For those students who do not own a computer, computer labs are available on the FGC campus and in public libraries. Students without internet can come to the FGC campus, go to local public libraries, coffee shops, etc.

If you have any additional questions, please contact IT at 386-754-4408. You can also email the Florida Gateway College helpdesk at helpdesk@fgc.edu.

Florida Gateway College Policies and Statements

The Library

The Wilson S. Rivers Library is located in Building 200 and also includes millions of e-books and articles (<https://www.fgc.edu/academics/library/>). The library has more than 70 computers with 50 pages daily of free B&W or Color printing for students. There are also small and large study rooms available for two hours at a time. Click the link above for more information. Librarians are available to assist with research help, and there are helpful videos on library searching and citation help here: (<https://www.fgc.edu/academics/library/research-help-and-guides/>).

Phone- 386-754-4401

Email- library@fgc.edu

[Ask-A-Librarian](#) text and chat

Fall & Spring Semester Library Hours

Monday – Thursday: 7:30 am – 7:30 pm

Friday: 9:00 am – 4:00 pm

Saturday: CLOSED

Sunday: CLOSED

Summer Semester Library Hours

Monday – Thursday: 7:30 am – 6:30 pm

Friday: CLOSED

Saturday & Sunday: CLOSED

Student Success Center (SSC)

The Student Success Center (SSC) is located in Building 008. The SSC offers a variety of resources for students and faculty. Access to computers and limited printing is available. Copies of reference books, textbooks, access to course specific software, and access to tutors for all levels of math and writing are available in the SSC. Tutoring in other subjects is also offered. The SSC provides space for students to study in subject specific learning groups. Stop by or call the Student Success Center to request the most current tutor schedule (386-754-4382).

Fall Semester SSC Hours

Monday--Thursday: 8:00am – 7:30 pm

Friday: 9:00am – 4:30pm

Spring Semester SSC Hours

Monday--Thursday: 8:00am – 6:00 pm

Friday: 9:00am – 4:30pm

Summer Semester SSC Hours

Monday – Thursday: 7:30 am – 5:00 pm

If you have any questions, you may contact the center by phone at 386-754-4479, 386-754-4382, or by emailing Christina Slater at christina.slater@fgc.edu.

EAB Navigate

The SSC initiates student progress reports to the entire campus through EAB Navigate. EAB Navigate is an early-alert tool designed to identify students who may be susceptible to falling behind in their course before they actually do.

Twice during the semester, we provide instructors with the opportunity to ALERT students of their course progress. This is done through the FGC Wolves email account. Students may receive an email stating their success may be at risk in a specific course. If you receive this email, DO NOT PANIC. Please contact your instructor directly, your academic advisor, and the SSC. Your instructor's information is provided in the email.

Navigate Student is a mobile app designed to support students during their academic careers at FGC. Navigate Student is the ultimate student resource that acts as a personal advisor and provides students with the information they need, when they need it. Additionally, students may make an appointment with an advisor, view campus events, be alerted on important to-do's, view class schedules, explore their major, and much more.

Please do not allow yourself to struggle. We are here to help you achieve success. The mission of the SSC is to help encourage and promote your educational journey here at FGC and beyond.

Class Recording

A student shall not make a recording in class unless the recording is limited to the class lecture, and

1. the recording is made for the student's personal educational use,
2. in connection with a complaint to the college, **or**
3. as evidence in or in preparation for a criminal or civil proceeding.

Students are not permitted to record in class, through any means over any medium, any academic or other activity that is not a class lecture. A recording of any meeting or conversation between students, or between students and faculty, is strictly prohibited unless all parties have consented to such recording. A recording of a class lecture may not be published without the prior express written consent of the recorded faculty member.

Resource Information

Florida Gateway College has partnered with **BetterMynd**, (<https://www.bettermynd.com/students>) an online therapy platform for college students, to offer our students access to free video-therapy sessions with their diverse network of licensed mental health counselors.

Florida Gateway College students can now access free online therapy sessions on the BetterMynd platform with the counselor of their choice. These 50-minute, live video-sessions are private, confidential, and can take place from the convenience of your laptop, smartphone, or tablet. Sessions are available during the day, at night, and on the weekends.

To register and get started with a counselor that's a good fit for you, sign-up here.
(<https://app.bettermynd.com/register>)

If you have any questions about these services, you can email BetterMynd at students@bettermynd.com.

If you are in the need of additional resources please contact the Director of Student Life, Amy Dekle, at amy.dekle@fgc.edu, or by visiting Building 007.

Academic Appeal; Grievances; General Complaint

If a student wishes to file an academic appeal, grievance, or general complaint, please visit the college's website. Under Students and the Complaints & Appeals section (<https://www.fgc.edu/students/complaints-and-appeals/>), information regarding policy, procedure, and forms related to these topics is provided.

College Course Withdrawal and Drop Process

A course may be dropped only during the published add/drop period. After add/drop, students must withdraw from their course. Please visit the [College Catalog](#) for more detailed information about the drop and withdrawal process.

Students are responsible for withdrawing by the published deadline. Students must allow sufficient time for the process to be completed. **The fully approved withdrawal form is due to Registration & Records by 4:30 p.m. on the deadline posted on the [Academic Calendar](#) or it is considered late.**

To withdraw from a course, the following steps must take place:

1. The student will log in to MyFGC and navigate to the Withdrawal form.
2. First, click the Student tab; next click Registration; and then click Course Withdrawal Form.
3. The student will enter the course information, the instructor's email address, and the advisor's name and email address. Once all information is entered, submit the form.
4. The form then routes directly to the instructor for approval and the last date of attendance. Once the instructor has completed their portion, the form will route to the advisor.
5. The advisor will complete their portion of the form and submit.
6. The form then routes to Registration & Records for processing. The student will receive an email notification to their FGC Wolves email account once this step is completed.
7. If the form is denied, the student will be notified by email and should contact the advisor with any questions.

Students are strongly encouraged to begin the withdrawal process the day **before** the withdrawal deadline to allow sufficient time for the process to be completed by all offices involved (Instructor, Advising Services, Financial Aid, Registration & Records).

It is the student's responsibility to understand all financial and academic implications of the withdrawal. Students are permitted a maximum of two (2) withdrawals per course. Upon the third attempt, a student must receive a grade for the course. Absence from class or merely notifying the professor does not constitute withdrawal. A student who stops attending class without withdrawing will receive a grade from the instructor.

Incompletes

Incomplete grades are reserved for students who are unable to complete a course and the withdrawal date has passed. A student should only be issued an incomplete if at least 75% of the course assignments have been submitted and the student can reasonably complete the remaining assignments **within the first three weeks** of the next term to earn a passing overall grade. Otherwise, students should be issued the earned letter grade in the course at the end of the current term.

The **Incomplete Grade Request Form** must be completed and submitted for approval by the **FIRST day of Final Exams and BEFORE** issuing the "I" grade. The instructor will describe the circumstances leading up to the requested "I" for the course, and list the missing assignments, quizzes, exams, and any other course requirements needed to satisfactorily complete the course **within the first three weeks** of the next term. The form must be signed by the instructor, student, and the Dean/Executive Director over the program. Once all

participants have signed, an approval email will be sent to the instructor for authorization to assign the "I" grade.

Student Communication Standards

You are expected to communicate in a professional and respectful tone with the instructor and fellow classmates. All written communication (in email correspondence, discussion forums, assignments, quizzes and exams, etc.) must use proper written English. Please refrain from using online and texting abbreviations and language. Oral communications, if applicable, must be made with a respectful tone and body language. Use proper [netiquette](#) throughout!

Academic Honesty

At Florida Gateway College, we value the development of critical thinking, effective communication, and academic growth. To ensure fairness and uphold the principles of academic integrity, any instances of academic dishonesty (i.e., cheating, plagiarism, bribery, misrepresentation, fabrication, unauthorized use of AI technologies, etc.) are not permitted and will be dealt with severely. Students should make themselves aware of the student code of conduct found in the Student Handbook. We believe in your ability to think critically and develop your own unique perspectives. By adhering to these guidelines and committing to the principles of academic integrity, you will not only enhance your learning experience, but also foster an environment of trust and respect within our academic community.

Use of AI Technologies

The use of AI technologies to generate or assist in the creation and completion of assignments is strictly prohibited, unless explicitly allowed by the instructor as described in the course syllabus. It is your responsibility to read this thoroughly and carefully at the beginning of the semester.

Your assignments should reflect your own thoughts, analysis, and original work. Florida Gateway College employs the use of AI detection tools to assess the authenticity of your assignments. These tools are designed to identify instances of cheating and plagiarism, including the use of AI technologies. Any submissions that violate this policy will be subject to disciplinary action. If you have any questions or concerns regarding the use of AI technologies in your courses, please review your course syllabus or reach out to your instructor for clarification.

Civil Rights and Compliance Statement

Florida Gateway College does not discriminate in education or employment related decisions on the basis of race, color, ethnicity, national origin, sex, religion, disability, age, marital status, genetic information, sexual orientation, pregnancy, or any other legally protected status in accordance with the law. The Civil Rights & Compliance Officer is Cassie Buckles, Associate Vice President of Human Resources, Building 001, Room 116, 149 SE College Place, Lake City, FL 32025, and may be reached at cassandra.buckles@fgc.edu or by phone at 386-754-4313.

Disability Statement

The Office of Accessibility Services (OAS) is a resource for both students with disabilities as well as faculty. Students with disabilities in need of academic accommodations must first be registered with the OAS to verify the disability, establish eligibility, and determine reasonable academic accommodations.

After registering with the OAS, students must request their academic accommodation letters be sent to them each semester to share with their instructors. Upon receipt of the letter, the instructor will be available during office hours or via email to discuss the accommodations a student will need during the course.

Students with disabilities who are not registered with the OAS or faculty who may have questions or concerns regarding an accommodation, please contact the office at the following:

In person: Building 007, Room 107

Phone: (386) 754-4393

Email: Accessibility.Services@fgc.edu

FERPA Statement

The Family Educational Rights and Privacy Act (FERPA) provides certain privacy rights to students related to educational records. This information can be found in the College Catalog, at the Registration & Records Office in Building 015 or on the Florida Gateway College website (www.fgc.edu/students/registration-and-records/ferpa/).

SACSCOC Statement

Florida Gateway College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award baccalaureate and associate degrees. Florida Gateway College also may offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of Florida Gateway College may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

Honorlock Statement

Florida Gateway College has partnered with Honorlock, an online testing proctoring service. If off-campus remote proctoring is required during any course, Honorlock will be the online proctoring service that allows you to take your exam. You **DO NOT** need to create an account, download software or schedule an appointment in advance. Honorlock is available 24/7 and all that is needed is a computer, a working webcam, and a stable Internet connection.

To get started, you will need to download the Honorlock Chrome Extension using Google Chrome. You can download the extension on the Honorlock website (www.honorlock.com/install/extension/). When you are ready to test, log into the LMS, go to your course, and click on your exam. Clicking **Launch Proctoring** will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. Honorlock will be recording your exam session by webcam as well as recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

Honorlock support is available 24/7/365. If you encounter any issues, you may contact Honorlock by live chat, by phone at 844-243-2500, and/or by email at support@honorlock.com.

If you encounter a Canvas issue, please contact Canvas via the Canvas Help menu or by clicking the **Canvas Support** link within your course(s).

Turnitin Statement

Instructors may require writing assignments to be submitted to Turnitin when uploaded to Canvas. Turnitin is an internet-based service that looks for similarities and potential plagiarism by comparing your assignment submissions with its massive database of student work (including previous student submissions at Florida Gateway College), the Internet, and its entire archive, books, and journal and reference publications. Turnitin generates a [similarity report](#), which can help you and your instructor determine whether you used sources fairly and ethically, cited correctly, and paraphrased effectively.

You are encouraged to submit your written work to Turnitin prior to assignment deadlines, whether through Canvas or [Draft Coach](#). If needed, that would allow you time to review the [library's research and help guides](#) or seek writing assistance from your instructor or a tutor in the Student Success Center.

Mission Statement

The mission of Florida Gateway College is to provide superior instruction, nurture individual development, foster career readiness, and enrich the diverse communities it serves through affordable, quality higher education programs and lifelong learning opportunities.