



Math 2413.221C3

Calculus I

Spring 2025

Lecture MW 5:00 pm – 6:50 pm ST 103

Lab MW 6:51 pm – 7:20 pm ST 103

Instructor Information: James Griffiths 409-933-8225 jgriffiths@com.edu

Student hours and location: First 8 – Weeks

MW 9:30 am – 11:00 am STE325-08

MW 3:45 pm – 5:00 pm STE325-08

Co-Req TTh 11:00 am – 12:00 pm Tutoring Center ICB-109

Second 8 – Weeks

M 12:30 pm – 2:30 pm STE325-08

Co-Req W 12:30 pm – 1:30 pm Tutoring Center ICB-109

MW 4:15 pm – 5:00 pm STE325-08

TTh 11:00 pm – 12:30 pm STE325-08

Required Textbook: The textbook used in this course is *Calculus, Early Transcendentals*, by Thomas, 14th edition, published by Pearson. The e-text is provided with *MyLab Math*. The student will need a computer and internet service outside of class to gain access to the online assignments on *MyLab Math*. Computers and internet access are available on campus during specified times.

Course Description: This course covers limits and continuity, the Fundamental Theorem of Calculus, definition of the derivative of a function and techniques of differentiation, applications of the derivative to maximizing or minimizing a function, the chain rule, Mean Value Theorem, and rate of change problems, curve sketching, definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with applications to include calculation of areas. Prerequisite; Math 2412, grade “C” or better or COM Math Placement Test.

Course Requirements:

Supplies: A Texas Instruments TI30XIIS scientific calculator is recommended. Graphing calculators may **not** be used on exams. A pencil is required for all assignments.

Homework Assignments on MyLab Math: There is a homework assignment for each unit covered. They are listed on the course outline in the syllabus and on the list of assignments on *MyLab Math*. Each homework assignments must be completed by 11:59 pm on the due date shown on both the course outline and on the list of assignments on *MyLab Math*. The student has a limit of **three** attempts to answer each question correctly on the homework assignments.

The student may stop working on a homework assignment and return to the assignment any time before the due date and time.

Quizzes on MyLab Math: Four quizzes which relate to the student learning outcomes, will be taken on *MyLab Math*. Like the homework assignments, the due dates are shown on both the course outline in the syllabus and on the assignment list on *MyLab Math*. Unlike the homework assignments, the quizzes must be taken in one sitting, they are timed, and the student gets only **one** attempt to answer each question. The quizzes may be retaken one time. The higher of the two grades will be used to determine the student's quiz average.

It is important that the student read and understand the warnings that begin on page 2 of the Orientation Notes, which discuss taking quizzes on MyLab Math. Failing to follow the suggestions presented in that document can cause a quiz or exam to be terminated. The instructor will not change a grade on any assignment on MyLab Math. Nor will the instructor reopen a quiz or exam from which the student has been locked out. The Orientation Notes can be found among the tabs for this course on Brightspace D2L.

Chapter Exams: There are four exams which cover the chapters in the textbook. The exams are taken in class on the due dates shown on the course outline in the syllabus. The student has 2 hours to take each exam. Exams may not be retaken. However, if the grade on the final exam is higher than the lowest chapter exam grade, the final exam grade will replace the lowest chapter exam grade.

Comprehensive Final Exam: The final exam is taken in class on the due date shown on the course outline in the syllabus. The student has 2 hours to take the final exam. The final exam may not be retaken.

Determination of Course Grade/Detailed Grading Formula:

Comprehensive Final Exam	20%
Average of Chapter Exams	60%
Homework Average	10%
Quiz Average	10%
Final Average	100%

Grade I: Given unforeseen circumstances that result in the inability to successfully complete the course objectives, an I-Contract may be requested from the instructor, assuming you meet the following criteria:

1. Have a passing overall average (70 or higher)
2. All work completed except for The Final Exam.

Grading Scale:

Grade A: Final Average is [89.5, 100]
Grade B: Final Average is [79.5, 89.5)
Grade C: Final Average is [69.5, 79.5)
Grade D: Final Average is [59.5, 69.5)
Grade F: Final Average is [0, 59.5)

Late Work, Make-Up Exams, and Extra-Credit Policy:

Late Work: There is a twenty (20) point penalty for all homework and quizzes submitted after the due date. Any homework assignments or quizzes that are not finished by the due date of the associated exam will be given a grade of zero at the time the exam is given. If a homework assignment or quiz has been partially completed by this deadline, the grade on the assignment (less 20%) will be applied to the homework assignment or quiz.

Make-Up Exams: There are no make-up exams unless:

- 1) the student notifies the instructor before the exam due date that they will miss the exam, and
- 2) the reason for the requested make-up exam is extraordinary, such as the death of a close family member, or the student's admission to the hospital.
(Transportation problems, minor illness, or scheduled doctor appointments are not extraordinary reasons for missing an exam.) Students will not be permitted to make up more than one exam. If a student makes up an exam, the final exam will no longer replace the lowest exam grade.

Extra Credit: Three points extra credit is given on exams if the student earns a score of 100 on the review. Extra-credit assignments may also be given throughout the course at the discretion of the instructor. Extra credit is never given at the end of the semester to bring up a poor grade. Do not even ask.

Attendance Policy: Students at COM are expected to attend and participate in every session of all classes for which they are registered. College of the Mainland recognizes no excused absences other than those prescribed by law. Students with excessive absences will be referred to Student Services. Students should consult information provided in MyLab Math and the course calendar when it becomes necessary to miss a class to be prepared when they return to class. The student is still responsible for work that is assigned during an absence and due dates still hold.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. The preferred method of communication in this course is in person. If that is not possible, an email or phone call will be satisfactory, but do not leave a message on my phone. If you cannot reach me by phone, email me. Be sure to include your name, the course in which you are enrolled, and state your question completely.

Table Mapping SLO's and Core Objectives

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Develop solutions for tangent and area problems using the concepts of limits, derivatives, and integrals.	Critical Thinking	Quiz
2. Draw graphs of algebraic and transcendental functions considering limits, continuity, and differentiability at a point.	Communication Skills	Quiz
3. Determine whether a function is continuous and/or differentiable at a point using limits.	Critical Thinking	Exam
4. Use differentiation rules to differentiate algebraic and transcendental functions.	Critical Thinking	Exam
5. Identify appropriate calculus concepts and techniques to provide mathematical models of real-world situations and determine solutions to applied problems.	Empirical and Quantitative Skills	Quiz
6. Evaluate definite integrals using the Fundamental Theorem of Calculus.	Empirical and Quantitative Skills	Exam
7. Articulate the relationship between derivatives and integrals using the Fundamental Theorem of Calculus	Critical Thinking	Exam

Academic Dishonesty: College of the Mainland is committed to a high standard of academic integrity. All students are responsible for honesty and independent effort. Incidents of academic and scholastic dishonesty (including cheating, plagiarism, and collusion) will be dealt with in a manner that is consistent with College Policy and the Student Handbook. Any student found to have be academically dishonest on an assignment, quiz or exam will receive a zero for that assignment, quiz or exam and he or she will be referred to the Office of Student Conduct for further disciplinary action. Please read the sections of *Standards of Student Conduct and Discipline and Penalties* in the on-line Student Handbook.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information provided. If, after discussing your concern with me, you continue to have questions, please contact Mr. Leslie Richardson, Math Department Chair, at 409-933-8329 or lrichardson@com.edu.

Course Outline:

<u>Week</u>	<u>Date</u>	<u>Sections Covered</u>
1	1/13 1/15	2.1 Rates of Change and Tangent Lines to Curves Due 1/17 2.2 Limit of a Function and Limit Laws Due 1/19
2	1/20 1/22	HOLIDAY 2.4 One Sided Limits Due 1/26 Quiz 1 (2.1, 2.2, 2.4) Due 1/26
3	1/27 1/29	2.5 Continuity Due 1/31 2.6 Limits Involving Infinity; Asymptotes of Graphs Due 2/2 Review for Exam 1 Due beginning of class 2/3
4	2/3 2/5	Exam 1 (2.1 – 2.6) Due 2/3 3.1 Tangent Lines and the Derivative at a Point Due 2/9 3.2 The Derivative as a Function Due 2/9
5	2/10 2/12	3.3 Differentiation Rules Due 2/14 3.4 Derivatives as Rates of Change Due 2/16
6	2/17 2/19	3.5 Derivatives of Trigonometric Functions Due 2/21 3.6 The Chain Rule Due 2/23
7	2/24 2/26	3.7 Implicit Differentiation Due 2/28 Quiz 2 (3.1 – 3.7) Due 2/28 3.8 Derivatives of Inverse Functions and Logarithms Due 3/2
8	3/3 3/5	3.9 Inverse Trigonometric Functions Due 3/7 3.10 Related Rates Due 3/9 Review for Exam 2 Due beginning of class 3/10
9	3/10 3/12	Exam 2 (3.1 – 3.10) Due 3/10 4.1 Extreme Values of Functions on Closed Intervals Due 3/16
***** SPRING BREAK *****		
10	3/24 3/26	4.2 The Mean Value Theorem Due 3/28 4.3 Monotonic Functions & the First Derivative Test Due 3/30
11	3/31 4/2	4.4 Concavity and Curve Sketching Due 4/4 Quiz 3 (4.1 – 4.4) Due 4/4 4.5 Indeterminate Forms and L'Hopital's Rule Due 4/6
12	4/7 4/9	4.6 Applied Optimization Due 4/11 4.8 Antiderivatives Due 4/13 Review for Exam 3 Due beginning of class 4/14

- 13 4/14 **Exam 3 (4.1 – 4.8) Due 4/14**
 4/16 5.1 Area and Estimating with Finite Sums Due 4/20
- ***** **W-Day is Monday, April 21** *****
- 14 4/21 5.2 Sigma Notation and Limits of Finite Sums Due 4/25
 4/23 5.3 The Definite Integral Due 4/27
- 15 4/28 5.4 The Fundamental Theorem of Calculus Due 5/2
 Quiz 4 (5.1 – 5.4) Due 5/2
 4/30 5.5 Indefinite Integrals and the Substitution Method Due 5/4
 Review for Exam 4 Due beginning of class 5/5
- 16 5/5 **Exam 4 (5.1 – 5.6) Due 5/5**
 Review for Comprehensive Final Exam
 Due beginning of class 5/7
 5/7 **Comprehensive Final Exam Due 5/7**

The syllabus is subject to change at the discretion of the instructor.

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook

https://www.com.edu/student-services/docs/Student_Handbook_2024-2025_v2.pdf

An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor’s professional judgment of the quality of the student’s work and performance is also not an admissible basis for a grade appeal.

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact:

Kimberly Lachney, Student Accessibility Services Coordinator

Phone: 409-933-8919

Email: AccessibilityServices@com.edu

Location: COM Doyle Family Administration Building, Student Success Center

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is February 26. The last date to withdraw from the 16-week session is April 21. The last date to withdraw for the 2nd 8-week session is April 30.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.

Nondiscrimination Statement:

The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.