Math 2413.221CL
Calculus I
Spring 2023
Lecture 5:00 pm – 6:50 pm MW STE 115
Lab 6:51 pm – 7:20 pm MW STE 115

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

Student hours and location: MW 10:30 am – 11:00 am, 2:00 pm – 5:00 pm
                                         TTh   9:00 am – 9:30 am
All student hours are in my office, STE 325-08 in the STEAM building.

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. A Texas Instruments TI30XIIS scientific calculator is recommended for this course.

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:
Homework Assignments on *MyLab Math*: There is a homework assignment for each unit covered. These are listed on the course outline in the syllabus and on the list of assignments on *MyLab Math*. Each day's homework assignments must be completed by 4:00 pm on the due date shown on both the course outline and on the list of assignments on *MyLab Math*. You should do the assignments as soon as possible after participating in the lecture, reading the appropriate section in the text book, and watching the associated video(s) on *MyLab Math*. Although the

homework is online, and the answers are entered online, you should write your work on paper, neatly showing all steps, and keep it in your notebook with your notes for future reference, both as an aid for preparing for quizzes and exams, and as a place to begin when seeking assistance from your professor, your peers, or the college tutoring center. The student has a limit of five attempts to answer a question correctly on the homework assignments.

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 this 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.

Chapter Exams: There are four exams which cover the chapters in the text book. The exams are taken in class on the due dates shown on the course outline in the syllabus. The student has 90 minutes 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 90 minutes 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 can 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, and Extra-Credit Policy: There is a twenty (20) percent 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 related exam will be given a grade of zero at the time the exam is given.
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.

Three points extra credit is given on exams if the student earns a score of 95 or better on the review. Extra-credit assignments may also be given throughout the course at the discretion of the instructor. It 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 My Math Lab and the course calendar when it becomes necessary to miss a class in order to be prepared when they return to class. They are still responsible for work that is assigned during an absence and due dates still hold.
A student is tardy if they enter the class room after class begins. Punctuality is a matter of consideration for other people. When a student arrives to class late or leaves early, they create a distraction to their peers and the professor, delaying or disrupting the learning process. Students who repeatedly arrive late or leave early will be referred to Student Services.

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. 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 previously 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:

Week	Date	Sections Covered
1	1/16	HOLIDAY
	1/18	2.1 Rates of Change and Tangent Lines to Curves Due 1/23
2	1/23	2.2 Limit of a Function and Limit Laws Due 1/27
	1/25	2.3 The Precise Definition of a Limit Due 1/30
		2.4 One Sided Limits Due 1/30
		Quiz 1 (2.1, 2.2, 2.4) Due 1/30
3	1/30	2.5 Continuity Due 2/3
	2/1	2.6 Limits Involving Infinity; Asymptotes of Graphs Due 2/6
		Review for Exam 1 Due 2/6
4	2/6	**Exam 1 (2.1 – 2.6) Due 2/6**
	2/8	3.1 Tangent Lines and the Derivative at a Point Due 2/13
		3.2 The Derivative as a Function Due 2/13
5	2/13	3.3 Differentiation Rules Due 2/17
		3.4 Derivatives as Rates of Change Due 2/17
	2/15	3.5 Derivatives of Trigonometric Functions Due 2/20
6	2/20	3.6 The Chain Rule Due 2/24
	2/22	3.7 Implicit Differentiation Due 2/27
		Quiz 2 (3.1 – 3.7) Due 2/27
7	2/27	3.8 Derivatives of Inverse Functions and Logarithms Due 3/3
	3/1	3.9 Inverse Trigonometric Functions Due 3/6
8	3/6	3.10 Related Rates Due 3/8
		Review for Exam 2 Due 3/8
	3/8	**Exam 2 (3.1 – 3.10) Due 3/8**
	*****	SPRING BREAK *****

| 9 | 3/20 | 4.1 Extreme Values of Functions on Closed Intervals Due 3/24 |
| | 3/22 | 4.2 The Mean Value Theorem Due 3/27 |

10	3/27	4.3 Monotonic Functions and the First Derivative Test Due 3/31
	3/29	4.4 Concavity and Curve Sketching Due 4/3
		Quiz 3 (4.1 – 4.4) Due 4/3

| 11 | 4/3 | 4.5 Indeterminate Forms and L'Hopital's Rule Due 4/7 |
| | 4/5 | 4.6 Applied Optimization Due 4/10 |

12	4/10	4.8 Antiderivatives Due 4/12
		Review for Exam 3 Due 4/12
	4/12	**Exam 3 (4.1 – 4.8) Due 4/12**

| 13 | 4/17 | 5.1 Area and Estimating with Finite Sums Due 4/21 |
| | 4/19 | 5.2 Sigma Notation and Limits of Finite Sums Due 4/24 |

14	4/24	5.3 The Definite Integral Due 4/28
	4/26	5.4 The Fundamental Theorem of Calculus Due 5/1
		Quiz 4 (5.1 – 5.4) Due 5/1

15	5/1	5.5 Indefinite Integrals and the Substitution Method Due 5/5
	5/3	5.6 Definite Integral Substitutions and the Area Between Curves Due 5/8
		Review for Exam 4 Due 5/8

| 16 | 5/8 | **Exam 4 (5.1 – 5.6)   Due 5/8** |
| | 5/10 | **Comprehensive Final Exam   Due 5/10** |

The last date to withdraw is Monday, 4/24/2023

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 Student_Handbook_2022-2023_v4.pdf (com.edu). *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 at 409-933-8919 or klachney@com.edu. The Office of Services for Students with Disabilities is located in the 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 March 1. The last date to withdraw from the 16-week session is April 24. The last date to withdraw for the 2nd 8-week session is May 3.

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.