Math 2414.221CL
Calculus 2
Fall 2022
5:30 pm – 7:20 pm MW

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

Student hours and location: MW 2:00 pm – 5:30 pm, TTh 11:00 am – 11:30 am
All student hours are in my office, 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: The course covers differentiation and integration of transcendental functions; techniques of integration, applications of integration; sequences and series; improper integrals.

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 11:59 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) 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 related exam will be given a grade of zero at that time.
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. I do not reply to text messages, so do not bother with them.

Table Mapping SLO's and Core Objectives:

Student Learner Outcome	**Maps to Core Objective**	**Assessed via this Assignment**
1. Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications.	Empirical and Quantitative Skills	Exam
2. Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of anti-derivatives to evaluate definite and indefinite integrals.	Critical Thinking Skills	Exam
3. Define an improper integral.	Critical Thinking Skills	Exam
4. Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals.	Critical Thinking Skills	Quiz
5. Determine convergence or divergence of sequences and series.	Critical Thinking Skills	Exam
6. Use Taylor and Maclaurin series to represent functions.	Empirical and Quantitative Skills	Exam
7. Use Taylor or Maclaurin series to integrate functions not integrable by conventional methods.	Empirical and Quantitative Skills	Exam
8. Use the concept of polar coordinates to find areas, lengths of curves, and representations of conic sections.	Empirical and Quantitative Skills	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 been 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
1	8/22	Orientation Exercises Due 8/26
		5.6 Substitution and Area Between Curves Due 8/26
	8/24	6.1 Volumes Using Cross-Sections Due 8/28
2	8/29	6.2 Volumes Using Cylindrical Shells Due 9/2
	8/31	6.3 Arc Length Due 9/4
		Quiz 1 (5.6 – 6.3) Due 9/4
3	9/5	HOLIDAY
	9/7	6.4 Areas of Surfaces of Revolution Due 9/11
4	9/12	6.5 Work and Fluid Forces Due 9/16
	9/14	6.6 Moments and Centers of Mass Due 9/18
		Review for Exam 1 Due 9/19
5	9/19	**Exam 1 (5.6 – 6.6) Due 9/19**
	9/21	7.1 The Logarithm Defined as an Integral Due 9/25

6	9/26	7.2 Exponential Change and Separable Differential Equations Due 9/30
	9/28	7.3 Hyperbolic Functions Due 10/2
		Quiz 2 (7.1 – 7.3) Due 10/2
7	10/3	7.4 Relative Rates of Growth Due 10/7
	10/5	8.1 Using Basic Integration Formulas Due 10/9
		Review for Exam 2 Due 10/10
8	10/10	**Exam 2 (7.1 – 7.4) Due 10/10**
	10/12	8.2 Integration by Parts Due 10/16
9	10/17	8.3 Trigonometric Integrals Due 10/21
	10/19	8.4 Trigonometric Substitution Due 10/23
		Quiz 3 (8.1 – 8.4) Due 10/23
10	10/24	8.5 Integration of Rational Functions by Partial Fractions Due 10/28
	10/26	8.8 Improper Integrals Due 10/30
		Review for Exam 3 Due 10/31
11	10/31	**Exam 3 (8.1 – 8.8) Due 10/31**
	11/2	10.1 Sequences Due 11/6
12	11/7	10.2 Infinite Series Due 11/11
	11/9	10.3 The Integral Test Due 11/13
13	11/14	10.4 Comparison Tests Due 11/18
	11/16	10.5 Absolute Convergence; Ratio & Root Tests Due 11/20
		Quiz 4 (10.1 – 10.5) Due 11/20

***** W-Day: November 18, 2022 *****

14	11/21	10.6 Alternating Series & Conditional Convergence Due 11/25
	11/23	10.7 Power Series Due 11/27

15	11/28	10.8 Taylor and Maclarin Series Due 11/29
		Review for Exam 4 Due 11/30
	11/30	**Exam 4 (10.1 – 10.8) Due 11/30**
		Review for Comprehensive Final Exam Due 12/5
16	12/5	**Comprehensive Final Exam Due 12/7**

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://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.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.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

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 Michelle Brezina at 409-933-8124 or mvaldes1@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 October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2nd 8-week session is December 1.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N 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 F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N 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.