Math 2414.221C3
Calculus II
Spring 2025
T/TH 5:30-7:20 pm

Instructor Information: Carol Switoyus
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(409)933-8220

Student Hours and location: M/W 8:15 – 9:15 am; 11:00 am -12:30 pm
T/TH 4:00 pm -5:00 pm
F 8:15 am – 8:45 am
All student hours located in Steam #325-17

Required Textbook/Materials: The textbook used in this course is: *Calculus Early Transcendentals* by Thomas, 14th edition. E-Book via MyMathLab in Brightspace - D2L **(No Purchase Necessary).** We will be using MyMathLab for all assignments and some assessments.

Course Description: This course covers differentiation and integration of transcendental functions, techniques of integration, applications of integration, sequences and series, and improper integrals.

Course Requirements:
HW/Daily: There will be a homework assignment for each section covered to be done online using MyMathLab. These are listed on the course outline in the syllabus and on the list of assignments on MyMathLab. It is your responsibility to make sure the assignments are submitted by the due date and time.
Quizzes/Exams: There will be quizzes to be done online using MyMathlab. You can retake each quiz just once to improve your score; the higher score will be the one that counts. There will be four chapter-exams and a comprehensive final to be completed in class. **There are no retakes on any of the exams.**
<mark>All due dates are on the course outline.</mark>

Determination of Course Grade: The course grade will be determined by the following formula:

Final Average = 60%Chapter Exam Average + 20%Final Exam + 10%Homework Average + 10%Quiz Average

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

Late Work, Make-Up, and Extra Credit:
Late homework and quizzes may be submitted, but there is a 20% grade penalty on late assignments. Tests must be taken on days assigned unless you notify me in advance of any issues. **There is no extra credit.**

Attendance Policy: Attendance and participation are required.

Communicating with your instructor: <mark>ALL electronic communication with the instructor must be through your COM email.</mark> Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. <mark>I will also be sending out information to your COM email address, please be sure to check it regularly.</mark>

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 antiderivatives 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 or 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 on *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 Leslie Richardson – Mathematics Department Chair at lrichardson@com.edu.

Course Outline:

Week   Date   Sections Covered

1   Jan. 13 - 17   5.6 Substitution and Area Between Curves
                              6.1 Volumes Using Cross Sections
                              (HW 5.6-6.1 due 1/19)

2   Jan. 20-24   **No Class Jan. 20 – College Closed – MLK Day**
                              6.2 Volumes Using Cylindrical Shells
                              6.3 Arc Length
                              (HW 6.2-6.3 due 1/26)
                              Quiz 1 (5.6 – 6.3) due 1/26

3   Jan. 27-31   6.4 Areas of Surfaces of Revolution
                              6.5 Work and Fluid Forces
                              (HW 6.4-6.5 due 2/2)

4   Feb. 3-7   6.6 Moments and Centers of Mass
                              (HW 6.6 due 2/9)
                              Review for Exam 1

5   Feb. 10-14   **Exam 1 (5.6 – 6.6) 2/11**
                              7.1 The Logarithm Defined as an Integral
                              (HW 7.1 due 2/16)

6   Feb. 17-21   7.2 Exponential Change and Separable Differential Equations
                              7.3 Hyperbolic Functions
                              (HW 7.2-7.3 due 2/23)
                              Quiz 2 (7.1 – 7.3)   due 2/23

7   Feb. 24-28   7.4 Relative Rates of Growth
                              8.1 Using Basic Integration Formulas
                              (HW 7.4-8.1 due 3/2)
                              Review for Exam 2

8   Mar. 3-7   **Exam 2 (7.1-7.4)   3/4**
                              8.2 Integration by Parts
                              (HW 8.2 due 3/9)

9   Mar. 10-14   8.3 Trigonometric Integrals
                              8.4 Trigonometric Substitution
                              (HW 8.3-8.4 due 3/16)
                              Quiz 3 (8.1 – 8.4) due 3/16

******   **Spring Break Mar 17 – 21**   *********

10	Mar. 24-28	8.5 Integration of Rational Functions by Partial Fractions

10   Mar. 24-28   8.5 Integration of Rational Functions by Partial Fractions
8.8 Improper Integrals
(HW 8.5-8.8 due 3/30)
Review for Exam 3

11 Mar 31 – Apr 4   **Exam 3 (8.1 – 8.8)   4/1**
10.1 Sequences
(HW 10.1 due 4/6)

12   Apr. 7-11   10.2 Infinite Series
10.3 The Integral Test
(HW 10.2-10.3 due 4/13)

13   Apr. 14-18   10.4 Comparison Tests
10.5 Absolute Convergence; Ratio & Root Tests
(HW 10.4-10.5 due 4/20
Quiz 4 (10.1 – 10.5)   due 4/20

14   Apr. 21-25   10.6 Alternating Series & Conditional Convergence
10.7 Power Series
10.8 Taylor and Maclaurin Series
(HW 10.6-10.8 due 4/27)
Review for Exam 4

15   Apr 28 – May 2   **Exam 4 (10.1 – 10.8)   4/29**
Review for Comprehensive Final Exam

16   May 5-9   **Comprehensive Final Exam 5/6**

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_2023-2024_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 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 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.