Instructor: Matthew Cochran
Email Address: matthew.cochran@chaminade.edu
Office: Henry Hall Office 7
Office Phone: 739-8361
Course Time: Tuesday and Thursday from 8:30 to 9:50
                     Wednesday from 1:30 to 2:20
Course Room: Henry Hall 210
Prerequisites: MA-110: Pre-Calculus or placement test
Required Text: Larson and Edwards, *Calculus of a Single Variable,* 10th ed., Brooks/Cole,
                     Belmont CA, 2013. ISBN-13: 978-1285060286 ISBN-10: 1285060288
Other Materials: Scientific calculator

COURSE DESCRIPTION:

This is the first part of a three-semester sequence of differential and integral calculus. Major topics include limits and continuity, differentiation and integration of algebraic and trigonometric functions, and basic applications.

EVALUATIONS AND GRADING SCALE:

Exam 1 . . . . 20%
Exam 2 . . . . 20%
Exam 3 . . . . 20%
Final 20%
Quizzes and Homework 20%

90% – 100% . . . . A
80% – 90% . . . . B
70% – 80% C
60% – 70% . . . . D
 0% – 60% . . . . F

Incomplete grades (I) will be given in accordance with college regulations as outlined in the college catalog. Withdrawals (W) from the class are the responsibility of the student and deadlines are set by the college.

EXAMS:
There will be three examinations and a final as part of the requirements for the course. Material for exams will be drawn primarily from quizzes and homework assignments. Hence, the best way to review for an exam is to review previous quizzes and homework assignments.

Make-up exams will only be given under extenuating circumstances beyond the student's control. Persons missing an exam due to illness or injury must present a doctor's certificate. Make-up exams must be completed within one week of the scheduled exam date or on the day the student returns to school (whichever comes first). Scheduling is the responsibility of the student.

HOMEWORK:
To be successful in this course, it is essential that you complete all homework assignments. Be prepared to spend three hours or more on homework every week. If you are having trouble, get help from the instructor or your classmates. Do not fall behind.

QUIZZES:
A ten-minute quiz will be given during most classes. Material for the quizzes will be drawn from recent homework assignments. Hence, the best way to prepare for quizzes is to do homework. Quizzes may be given at the beginning of class, so show up on time. Make-up quizzes are not given.

ATTENDANCE:
Regular attendance is expected of all students. Read material prior to lecture. If a topic is still not clear after it has been discussed in class, ask questions. Time will be spent working through homework problems and reviewing for exams in addition to lecturing. You will work with partners in class. It is important that partners engage in discussion of their work and avoid working as isolated individuals.

COURSE OBJECTIVES:
By taking this course, students will:
● Gain understanding of the concept of limits
● Gain understanding of the continuity of functions
● Gain understanding of the concept of the derivative and its relation to the behavior of a function
● Develop skills to compute derivatives, and demonstrate a comprehension of general rules for differentiation
● Develop skills to use derivatives in critical point analysis, graph sketching, and optimization problems
● Gain understanding of the concepts of indefinite and definite integration and the Fundamental Theorem of Calculus
● Develop skills to calculate integrals using the substitution method when appropriate
● Develop skills to solve applied problems using integrals

MUSIC DEVICES AND MOBILE PHONES:

Unless specifically permitted by your instructor, use of music devices and mobile phones is prohibited during all Natural Science and Mathematics classes at Chaminade, as it is discourteous and may lead to suspicion of academic misconduct. Students unable to comply will be asked to leave class.

ADA ACCOMODATIONS:

Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from CUH Counseling Center (Dr. June Yasuhara, 735-4845) by the end of the third week of classes. Failure to provide written documentation will prevent your instructor from making necessary accommodations. Please refer any questions to the Dean of Students and review procedures at:

www.chaminade.edu/student_life/sss/counseling_services.php

WEEKLY SCHEDULE:

Week	Date	L#	Topic	Reading
1	Aug 23	1	Course Intro; Review	
	Aug 25	2	Preview of calculus	1.1
2	Aug 30	3	Finding limits graphically, numerically, and analytically	1.2 & 1.3
	Sep 01	4	Continuity and infinite limits	1.4 & 1.5
3	Sep 06	5	Review	
	Sep 08	E1	**EXAM 1 – Chapter 1**	
4	Sep 13	6	Derivative and slope	2.1
	Sep 15	7	Basic differentiation rules	2.2
5	Sep 20	8	Product and quotient rules	2.3
	Sep 22	9	Chain rule	2.4
6	Sep 27	10	Implicit differentiation	2.5
	Sep 29	11	Related rates	2.6
7	Oct 04	12	Review	
	Oct 06	E2	**EXAM 2 – Chapter 2**	
8	Oct 11	13	Extrema	3.1
	Oct 13	14	First derivative test	3.3
9	Oct 18	15	Second derivative test and limits at infinity	3.4 & 3.5
	Oct 20	16	Curve sketching	3.6
10	Oct 25	17	Optimization problems	3.7
	Oct 27	18	Differentials	3.9
11	Nov 01	19	Review	
	Nov 03	E3	**EXAM 3 – Chapter 3**	
12	Nov 08	20	Antiderivatives	4.1
	Nov 10	21	Area	4.2
13	Nov 15	22	Riemann sums	4.3
	Nov 17	23	The fundamental theorem of calculus	4.4
14	Nov 22	24	Substitution	4.5
	Nov 24	H1	**Thanksgiving – No Class**	
15	Nov 29	25	Numerical integration	4.6
	Dec 01	26	Review for final	
Finals	Dec 06	FE	**CUMULATIVE FINAL – 8:30 to 10:30**	