CHAMINADE UNIVERSITY
MA-210-02-1: CALCULUS I
COURSE SYLLABUS – SPRING 2018

Instructor: Matthew Cochran
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Office: Henry Hall Office 7
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Course Time: Tuesday and Thursday from 11:30 to 12:50
Monday from 1:30 to 2:20
Course Room: Henry Hall 203
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#	Lecture Topic	Reading
1	Jan 16	1	Course Intro; Review	
	Jan 18	2	Preview of calculus	1.1
2	Jan 23	3	Finding limits graphically, numerically, and analytically	1.2 & 1.3
	Jan 25	4	Continuity and infinite limits	1.4 & 1.5
3	Jan 30	5	Review	
	Feb 01	**E1**	**EXAM 1 – Chapter 1**	
4	Feb 06	6	Derivative and slope	2.1
	Feb 08	7	Basic differentiation rules	2.2
5	Feb 13	8	Product and quotient rules	2.3
	Feb 15	9	Chain rule	2.4
6	Feb 20	10	Implicit differentiation	2.5
	Feb 22	11	Related rates	2.6
7	Feb 27	12	Review	
	Mar 01	**E2**	**EXAM 2 – Chapter 2**	
8	Mar 06	13	Extrema	3.1
	Mar 08	14	First derivative test	3.3
9	Mar 13	15	Second derivative test and limits at infinity	3.4 & 3.5
	Mar 15	16	Curve sketching	3.6
10	Mar 20	17	Optimization problems	3.7
	Mar 22	18	Differentials	3.9
–	Mar 27 Mar 29	**H1**	**Spring Break**	
11	Apr 03	19	Review	
	Apr 05	20	**EXAM 3 – Chapter 3**	
12	Apr 10	21	Antiderivatives	4.1
	Apr 12	22	Area	4.2
13	Apr 17	23	Riemann sums	4.3
	Apr 19	24	The fundamental theorem of calculus	4.4
14	Apr 24	25	Substitution	4.5
	Apr 26	26	Substitution	
15	May 01	27	Numerical integration	4.6
	May 03	28	Review for final	
Wed	May 09	**FE**	**FINAL EXAM – 8:30 to 10:30 – Cumulative**	