

<p>CHAMINADE UNIVERSITY MATH-211: CALCULUS II COURSE SYLLABUS – SPRING 2014</p>

Instructor: Matthew Cochran
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Office: Henry Hall 7
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Course Time: Tuesdays and Thursdays from 8:30 to 9:50
and Wednesdays from 1:30 to 2:20
Course Room: Ching 253 or Wesselkamper 120
Prerequisites: MATH-210: Calculus I or placement test
Required Text: Larson and Edwards, *Calculus of a Single Variable*, 9th ed., Brooks/Cole,
Belmont CA, 2010. ISBN10: 0-547-20998-3
Other Materials: Graphing calculator

COURSE DESCRIPTION:

This is the second part of a three-semester sequence on differential and integral calculus. Major topics include techniques of differentiation and integration of transcendental functions, differential equations, applications of integration, advanced techniques of integration, and infinite series.

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 exams 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 quiz will be given most weeks. 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:

At the completion of this course students should be able to:

1. Differentiate and integrate exponential, logarithmic, trigonometric, inverse trigonometric and hyperbolic functions.
2. Solve differential equations.
3. Find area, volume, arch length, and surface areas. Find work, moments, centers of mass, and centroids.
4. Evaluate integrals by the methods of integration by parts, trigonometric substitution, and partial fractions. Find limits by applying L'Hopital's rule. Evaluate improper integrals.
5. Find the sum of a series. Express repeating decimal as the ratio of two integers. Determine the convergence or divergence of infinite series. Represent functions by power series. Find Taylor or Maclaurin Series for a function.

MUSIC DEVICES AND CELLPHONES:

Unless specifically permitted by your instructor, use of music devices or cell 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

TENTATIVE WEEKLY SCHEDULE:

Week	Date	L#	Lecture Topic	Reading
1	Jan 14	1	Intro; Differentiation of natural log	5.1
	Jan 16	2	Integration of natural log	5.2
2	Jan 21	3	Inverse functions	5.3
	Jan 23	4	Exponential functions	5.4
3	Jan 28	5	Other bases	5.5
	Jan 30	6	Inverse trig functions	5.6
4	Feb 04	7	Inverse trig functions	5.7
	Feb 06	8	Hyperbolic functions	5.8
5	Feb 11	9	Review	
	Feb 13	E1	EXAM1 – Chapter 5	
6	Feb 18	10	Area	7.1
	Feb 20	11	Volume: Disk method	7.2
7	Feb 25	12	Arc Length	7.4
	Feb 27	13	Work	7.5
8	Mar 04	14	Pressure	7.7
	Mar 06	15	Review	
9	Mar 11	E2	EXAM2 – Chapter 7	
	Mar 13	16	Integration rules	8.1
10	Mar 18	17	Integration by parts	8.2
	Mar 20	18	Trig integrals	8.3
–	Mar 25 Mar 27	H2	Spring Break	
11	Apr 01	19	Trig substitution	8.4
	Apr 03	20	Partial fractions	8.5
12	Apr 08	21	Integration tables	8.6
	Apr 10	22	L'Hopital's Rule	8.7
13	Apr 15	23	Improper integrals	8.8
	Apr 17	24	Review	
14	Apr 22	E3	EXAM3 – Chapter 8	
	Apr 24	25	Slope fields	6.1
15	Apr 29	26	Growth and decay	6.2
	May 01	27	Review	
Tues	May 06	FE	FINAL EXAM– 8:30 to 10:30 – Cumulative	