CHAMINADE UNIVERSITY
MATH-211: CALCULUS II
COURSE SYLLABUS – SPRING 2012

Instructor: Matthew Cochran
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Office: Henry Hall 7
Office Phone: 739-8361
Course Time: Tuesdays and Thursdays from 8:30 to 10:50
and Mondays from 5:30 to 6:20
Course Room: Ching Hall 253 and Henry Hall 203
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.
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 infinite series.

EVALUATIONS AND GRADING SCALE:

Exam 1 . . . . . 25%
Exam 2 . . . . . 25%
Exam 3 . . . . . 25%
Quizes. 25%

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 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.

ATTENDENCE:
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 of revolution. 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 and 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 17	1	Intro; Differentiation of natural log	
	Jan 19	2	Integration of natural log	5.1 & 5.2
2	Jan 24	3	Inverse functions	5.3
	Jan 26	4	Exponential functions	5.4
3	Jan 31	5	Other bases	5.5 & 5.6
	Feb 02	6	Inverse trig functions	5.7 & 5.8
4	Feb 07	7	Slope fields	6.1
	Feb 09	8	Growth and decay	6.2
5	Feb 14	9	Separation of variables	6.3
	Feb 16	10	First order equations	6.4
6	Feb 21	**E1**	**EXAM 1 – Chapters 5 & 6**	
	Feb 23	11	Area	7.1 & 7.2
7	Feb 28	12	Volume	7.3
	Mar 01	13	Arc length	7.4
8	Mar 06	14	Work	7.5
	Mar 08	15	Center of mass	7.6
9	Mar 13	16	Fluid pressure	7.7
	Mar 15	17	Integration rules	8.1
10	Mar 20	18	Integration by parts	8.2 & 8.3
	Mar 22	19	Partial fractions	8.4 & 8.5
–	Mar 27 Mar 29	**H1**	**Spring Break**	
11	Apr 03	20	L'Hopital's Rule	8.6 & 8.7
	Apr 05	21	Improper integrals	8.8
12	Apr 10	**E2**	**EXAM 2 – Chapters 7 & 8**	
	Apr 12	22	Sequences and series convergence	9.1 & 9.2
13	Apr 17	23	Comparisons of series	9.4
	Apr 19	24	Alternating series	9.5
14	Apr 24	25	Taylor polynomials	9.7
	Apr 26	26	Power series	9.8
15	May 01	27	Power series	9.9
	May 03	28	Taylor and Maclaurin series	9.10
Final	May 08	**FE**	**FINAL EXAM – 8:30 to 10:30 – Chapter 9**	