## **Basic Course Information**

Semester	Spring 2015	Instructor Name	Mr. Voldman
Course Title & #	Math 194 (Calculus II)	Email	alex.voldman@imperial.edu
CRN #	20393	Webpage (optional)	
Room	2725	Office	Room 2764
Class Dates	02/17/2015-06/12/15	Office Hours	MW 11:40-13:10, TF 12:45-
			1:15
Class Days	TTH	Office Phone #	760-355-6299
Class Times	10:15-12:45	Office contact if	760-355-6155, 760-355-6201
		student will be out	Ofelia or Silvia
Units	5	or emergency	

### **Course Description**

Concepts dealing with integration applications, methods of integration, infinite series, plane analytic geometry, parametric equations, and polar coordinates.

### **Student Learning Outcomes**

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

- 1. Demonstrate understanding of various techniques of integration (ILO2)
- 2. Demonstrate ability to solve applications of integration. (ILO1, ILO2, ILO4)
- 3. Demonstrate ability to apply various tests for convergence determination. (ILO2)
- 4. Distinguish the various types of conic sections (ILO2)
- 5. Use parametric equations and polar coordinates. (ILO2)

### **Course Objectives**

Upon course completion, students will:

1. Demonstrate the ability to solve many problems in diverse areas, in a step-by-step manner, when dealing with applications of integration.

- 2. Demonstrate knowledge and understanding of various methods used in mathematical integrations.
- 3. Be introduced to various indeterminate forms and be able to evaluate improper integrals.
- 4. Recognize infinite sequences and infinite series and will apply various tests for convergence determination.
- 5. Demonstrate knowledge in series expansion and the concept of power series.
- 6. Will learn and distinguish the various types of conic sections.
- 7. Demonstrate knowledge of the polar system of coordinates and its use in applications.

### **Textbooks & Other Resources or Links**

Larson, R., Hostetler, R. and Edwards, B. (2014). Calculus (10th/e). Brooks/Cole. ISBN: 978-1285057095

### **Course Requirements and Instructional Methods**

**Homework (Online Assignments)**: You will need to log into https://imperial.blackboard.com/; there, you will find the homework problems, along with projects and project tutorial assignments.

# Project

Purpose: To introduce technology (**MATLAB software**) Place to work on the project: MATHLAB (Building 2500) **No late project will be accepted**!

# Exams

Purpose: To review the material introduced in class and to evaluate your understanding of the material covered in the course. There will be no make-up exams given. Zeros will be given for all missed tests.

# Final Exam (comprehensive)

## **Office Hours**

Your professor urges you to avail yourself of his/hers individual instruction during office hours. Do not wait until you are in trouble. If you have been absent or late to class, please read the lesson you missed and come to his/her office prepared with questions.

## **Course Grading Based on Course Objectives**

## Grade Distribution

Project	Homework	Exams	Final				
100 points	150 points	400 points	200 points	5			
Uomowow	100/						
Drojoct	10 %						
F IUjeci							
Exams	6U%o						
Final	20%						
Grading Scale:							
90-100% A	80-89% B	70-79%	C 6	60-69%	D	0-59%	

## Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. If you are 10 minutes late you will be marked absent. Do not make doctor, counseling, or any appointments during class time. Leaving during lecture will be considered an unexcused absence. If you have to leave anytime during class, other than established break times, you must inform your instructor.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

## **Classroom Etiquette**

- <u>Electronic Devices:</u>Cell phones and electronic devices must be turned off and put away during class unless otherwise directed by the instructor.
- <u>Food and Drink</u> are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.

- <u>Disruptive Students</u>:Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with course work. Disciplinary procedures will be followed as outlined in the General Catalog.Disruptive and inconsiderate behavior will not be tolerated! Absolutely no talking during lecture unless you have questions! Respect your classmates and your instructor.
- <u>Children in the classroom</u>: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

## **Academic Honesty**

- <u>Plagiarism</u> is to take and present as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to correctly 'cite a source', you must ask for help.
- <u>Cheating</u> is defined as fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials, or assisting others in using materials, which are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment, (e) use of a commercial term paper service

# **Additional Help**

- Me: Office Hours; just walk-in and get help.
- Study Guides: The bookstore has textbooks for sale
- <u>Blackboard</u> support center: <u>http://bbcrm.edusupportcenter.com/ics/support/default.asp?deptID=8543</u>
- <u>Learning Labs:</u>There are several 'labs' on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading & Writing Lab, and Learning Services (library). Please speak to the instructor about labs unique to your specific program
- <u>Library Services:</u>There is more to our library than just books. You have access to tutors in the learning center, study rooms for small groups, and online access to a wealth of resources.

## **Disabled Student Programs and Services (DSPS)**

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313 if you feel you need to be evaluated for educational accommodations.

## **Student Counseling and Health Services**

Students have counseling and health services available, provided by the pre-paid StudentHealth Fee.We now also have a fulltime mental health counselor. For information see<u>http://www.imperial.edu/students/student-health-center/</u>. The IVC Student Health Center islocated in the Health Science building in Room 2109, telephone 760-355-6310.

## **Student Rights and Responsibilities**

Students have the right to experience a positive learning environment and dueprocess. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at http://www.imperial.edu/index.php?option=com\_docman&task=doc\_download&gid=4516&Itemid=762

### **Information Literacy**

Imperial Valley College is dedicated to help students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at <u>http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/</u>

### **Anticipated Class Schedule / Calendar**

Date or Week	Activity, and/or Assignment	Material, and/or Topic
Week 1	Syllabus & Orientation	Area between curves,
February 17-20	MATLAB Orientation	Computing Volume of a
	Chapter 7, Sections7.1-7.2	Solid (Disk Method
		without Cavities)
Week 2	Chapter 7	Computing Volume of a
February 23-27	Sections 7.2-7.3	Solid (Disk Method with
		Cavities),
		Computing Volume of a
		Solid (Method of
		Cylindrical Shells)
Wester?	Character 7	A un T a math
Week 3 Marah 2 6	Chapter /	Arc Length
March 2-0	Sections 7.4-7.5	Applications of
		integration: work
Week 4	Exam I - Tuesday	Review of integration
March 9-13	Chapter 8	techniques and
	Section 8.1-8.2	integration by parts
Week 5	Chapter 7	Trigonometric techniques
March 16-20	Sections 8.3-8.4	of integration
Week 6	Chapter 7	Integration of rational
March 23-27	Sections 8.5,8.8	functions using partial
		fractions
		Improper integrals
Week 7	Exam II - Tuesday	Sequences of real
March 30-31	Chapter 9	numbers
April 1-3	Section 9.1	
	Project submission Part I- April 2 (Thursday)	
April 6-10	Spring Break	
Week 8	Chapter 9	Series and Convergence
April 13-17	Sections 9.2-9.3	The Integral Test and p-
		series
Week 9	Chapter 9	Comparison Tests
April 20-24	Sections 9.4-9.5	Alternating Series

Week 10	Chapter 0	The Patio Test
		The Katlo Test
April 27-30	Section 9.6-9.7,9.8	Taylor Polynomials
		Power series
Week 11	Chapter 9	Representation of
May 4-8	Section 9.9-9.10	Functions by Power
		Series
		Taylor and Maclaurin
		series
Week 12	Exam III-Tuesday	Plane curves and
May 11-15	Chapter 10	parametric equations,
	Sections 10.1-10.3	Calculus with parametric
		curves
Week 13	Chapter 10	Polar coordinates,
May 18-22	Sections 10.4-10.5	Calculus of polar
-		coordinates
Week 14	Chapter 10	Polar Equations of
May 26-29	Sections 10.6	Conics
-	Exam IV-Thursday	
	Project submission Part II- May 28 (Thursday)	
Week 15		
Review		
Week 16		
May 8-12	Final Exam (To be announced)	

Note: I reserve the right to change this schedule with notification to students