Math 192-Calculus I-Spring 2013

General Information

Name	Dr. Voldman	Textbook/Author	Calculus 7th edition by Stewart
Office	Room 2764	Chapters Covered	2,3,4, and 5
Phone	355-6299	**Office Hours: MW 7:00-7:30, TTH 2:00-3:30**	Time: TTH 7:30-10:00 CRN: 20241 Credit Units: 5
E-mail	alex.voldman@imperial.edu	IVC Prerequisite with C or better	Pre-calculus -Math 190

Grading Scale

90-100%	A	80-89%	B	70-79%	C	60-69%	D	0-59%	F

Grade Distribution

Project	Homework	Exams	Final
100 points	100 points	200 points	200 points

Project	**20%**
Homework	**10%**
Exams	**50%**
Final	**20%**

General Guidelines

1. Late work (homework, projects, etc) is not accepted	5. Bring your book, ruler to class every day
2. School policy: No food or beverages are allowed in the classroom	6. It is your responsibility to drop before the W deadline
3. Missed assignments are recorded as zeros	7. It is your responsibility to keep notes, syllabus, handouts
4. School policy: No children are allowed in the classroom	

Course Description:

Concepts dealing with limits, derivatives, optimization problems and integration.

SLO:

Be able to define and graph hyperbolic and inverse trigonometric functions. (ILO2)

Demonstrate ability to anti-differentiate simple functions (ILO2)

Demonstrate ability to differentiate simple functions. (ILO2)

Be able to set up and solve optimization problems of a single variable. (ILO1, ILO2, ILO4)

Be able to compute limits for simple functions. (ILO2)

COURSE OBJECTIVES

1. Demonstrate skills in understanding the concept of limit and be knowledgeable in finding limits.

2. Demonstrate an understanding and a working knowledge of the derivative.

3. Demonstrate proficiency in problem solving when dealing with applications of differentiation.

4. Demonstrate knowledge in anti-differentiation.

5. Demonstrate an understanding and a working knowledge of the definite integral.

6. Demonstrate a thorough understanding of logarithmic and exponential functions, and their use in applications dealing primarily with growth and decay phenomena.

7. Demonstrate the ability to deal with trigonometric, inverse trigonometric and hyperbolic functions and many common applications thereof.

Attendance and Absences:

If you are 5 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. After the third unexcused absence, you will be dropped

from the class. In other cases, it is your responsibility to drop yourself before the withdrawal deadline. <u>Disruptive and inconsiderate behavior will not be tolerated!</u>

Cheating and Plagiarism
Dishonesty in the classroom is considered a very serious offense. Any form of cheating, turning in work which is not one's own (plagiarism), is grounds for disciplinary action. The consequences of these actions are severe and may include the possibility of expulsion.
Silence pagers and cell phones. Use of cell phones in the class room will not be permitted; you should not bring one into the classroom unless the ringer is turned OFF.
Project and Class work
Purpose: To introduce technology (MATLAB)
Place to work on the project: MATHLAB (Building 2500)
<u>-No late project or class work will be accepted</u>!
Midterms
Purpose: To evaluate your understanding of the material covered in the course.
Final Exam (comprehensive)
Learning Resources
1. Me: Office Hours ; just walk-in and get help. Appointment hours; you must give at least one day advance notice
2. Tutorial services: Library, Vocational Education Building Room 1701
3. Study Guides: The bookstore has textbooks for sale
Any student with a documented disability who may need educational accommodations should notify the instructor or DSPS office as soon as possible (DSP&S, Room 2117, Health Sciences Building, (760) 355-6312

Schedule spring 2013

Week 1
Orientation
Tangent and velocity problem
Introduction to Limits
Limits and continuity
Week 2
Limits at infinity
Derivative of a function
Week 3
Derivatives of polynomial and exponential functions
Derivatives of trigonometric functions
Week 4
The product and quotient rule
The Chain rule
Week 5
Implicit differentiation
Derivative of logarithmic functions
Week 6
Applications (Rates of Change, Exponential Growth and Decay)
Week 7
Exam I-Tuesday
Applications (Related rates)
Week 8
Linear approximations and differentials
Hyperbolic functions
Week 9
Maximum and minimum values
The mean value theorem
Week 10

Derivatives and graphs
L'hospital's rule
Week 11
Optimization problems
Week 12
Newton's method and antiderivatives
Exam II-Thursday
Week 13
Area problem and definite integral
The fundamental theorem of calculus and indefinite integrals
Week 14
Indefinite Integrals
The substitution rule
Week 15
Review
Week 16
Final