Math 170 Calculus with Applications Imperial Valley College Spring 2014

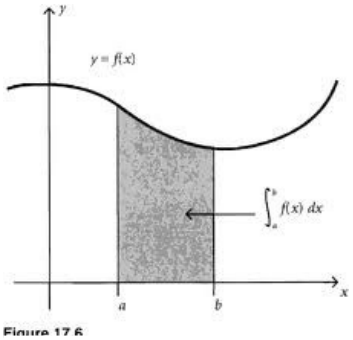


Figure 17.6

Class Number: ***20155*** **(4 credit units)**
Room: 2751
TR 3:05-5:10pm

Instructor:	Rick Castrapel
Phone:	(760) 355-6505
Office:	Room 2773
Office Hours:	MW 5:30-6:30pm, TR 2:00-3:00pm or by appointment
Email:	rick.castrapel@imperial.edu
Web Page:	http://www.imperial.edu/rick.castrapel
Textbook:	Calculus with Applications, 10th Edition, Lial ISBN-13: 9780321749000, Math XL

Description: To prepare for courses for which calculus is recommended and/or required. To study the ideas and concepts of advanced mathematics as applied to a modern computerized society. Topics covered include pre-calculus concepts, functions, differentiation, integration, differential equations, and functions of several variables.

Prerequisites: MATH 150 or equivalent college course with "C" or better, or eligibility determined by placement.

Calculator: A scientific calculator capable of statistical calculations, such as the TI30X-IIS is required. **A TI 83/84 is highly recommended** and will be used for classroom demonstrations. You may not share calculators during tests.

Cell Phones: Keep cell phones turned off during class. You may not use a cell phone as a calculator during tests.

Blackboard: http://www.imperial.blackboard.com Please use the first part of your IVC Email Address in the username field. For the password field, please use your WebSTAR/Student Portal PIN.

Keys to Success:
1. Attitude, Attitude, Attitude
2. Attend Class Regularly
3. Do Your Homework
4. Study

Keeping Up: Don't let yourself fall behind. If you feel you are slipping, **SEE ME**. This is **urgent**. It is my goal and that of the Imperial Valley College Math Dept. that you succeed. Sign up for free tutorial service offered by the **Math Lab room 2500.**

Homework: In mathematics, homework is crucial. Homework is assigned through **MathXL** and done online. See the attached flier. Please ask questions about the homework in class.

Dropping: You may be dropped from this class if you miss the first day or if you miss three or more class sessions total. The last day to drop this class is Apr 11. After that date, I must give you a letter grade. It is your responsibility to drop, not mine.

DSP&S: Any student with a documented disability who may need educational accommodations should notify the Disabled Student Programs and Services (DSP&S) office as soon as possible. Room 2117 Health Sciences Building (760) 355-6312.

Grading: There will be 4 midterm tests, worth 100 points each. There will be a comprehensive final exam worth 200 points. Your homework is worth 200 points. **A missed test may only be made-up if you notify me in advance or if you provide written documentation of a valid reason, such as hospitalization, jury duty, etc.**

Grading Policy

Midterm Tests	400 points
MathXL Homework	200 points
Final Exam	200 points
Total	**800 points**

Grading Scale

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

Academic Integrity is assumed and necessary. Disruptive students will be required to leave the class for the day. Continued disruptive behavior, cheating or plagiarism may result in severe academic penalty. See the college bulletin.

Math 170 Student Learning Outcomes and Course Objectives

MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon satisfactory completion of the course, students will be able to:

1. Demonstrate an understanding and comprehension of basic ideas and elementary concepts of algebra.
2. Demonstrate an understanding of functions and intuitive understanding of limits.
3. Demonstrate an understanding and a working knowledge of the derivative.
4. Demonstrate proficiency in problem solving when dealing with applications of differentiation.
5. Distinguish the various approaches when solving integration problems.
6. Demonstrate the ability to solve problems in a step-by-step manner when dealing with application of integration.
7. Demonstrate an understanding of logarithmic and exponential functions, and differential equations, and their use in applications.
8. Analyze functions of several variables..

STUDENT LEARNING OUTCOMES:

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

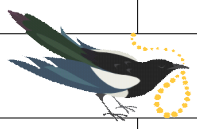
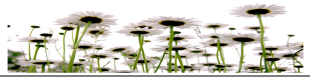
1. Demonstrate an understanding of the relationship between slope, average rate of change, instantaneous rate of change, and the derivative. (ILO2)

2. Calculate limits, derivatives and integrals for polynomial, rational, exponential and logarithmic functions (ILO2)

3. Use differentiation and integration techniques to solve problems from business, economics, social science and life science. (ILO1, ILO2, ILO4)

4. Use the derivative to analyze and aid in graphing functions as well as solving optimization and related rate problems. (ILO1, ILO2)

Math 170 Spring 2014 Tentative Schedule

Date	Text	Event	Notes
01/21/14	1.1		Course Introduction; Slopes and Equations of Lines
01/23/14	1.2		Linear Functions
01/28/14	1.3		The Least Squares Line
01/30/14	2.1, 2.2		Properties of Functions; Translations and Reflections
02/04/14	2.3, 2.4		Polynomial and Rational Functions; Exponential Functions
02/06/14	2.5, 2.6		Logarithmic Functions; Applications
02/11/14	3.1	**Review**	Limits; Review for Test 1
02/13/14		**Test 1**	**Chapters 1 and 2**
02/18/14	3.2, 3.3		Continuity, Rates of Change
02/20/14	3.4, 3.5		The Derivative; Graphical Differentiation
02/25/14	4.1, 4.2		Finding Derivatives; Product and Quotient Rules
02/27/14	4.3, 4.4		Chain Rule; Exponential Functions
03/04/14	4.5, 5.1		Logarithmic Functions; Increasing and Decreasing
03/06/14		**Test 2**	**Chapters 3 and 4**
03/11/14	5.2, 5.3		Relative Extrema; Higher Derivatives
03/13/14	5.4, 6.1		Curve Sketching; Absolute Extrema
03/18/14	6.2, 6.3		Applications
03/20/14	6.4, 6.5		Implicit Differentiation; Related Rates
03/25/14	6.6	**Review**	Differentials: Linear Approximation; Review for Test 3
03/27/14		**Test 3**	**Chapters 5 and 6**
04/01/14	7.1		Antiderivatives
04/03/14	7.2, 7.3		Substitution; Area and the Definite Integral
04/08/14	7.4		The Fundamental Theorem of Calculus
04/10/14	7.5, 7.6		Area Between Two Curves; Numerical Integration
04/15/14	8.1, 8.2		Integration by Parts; Volume and Average Value
04/17/14	8.3, 8.4		Continuous Money Flow; Improper Integrals
04/22/14			**Spring Break** 
04/24/14			
04/29/14	9.1		Functions of Several Variables
05/01/14	9.2		Partial Derivatives
05/06/14	9.3	**Review**	Maxima and Minima; Review for Test 4
05/08/14		**Test 4**	**Chapters 7, 8, 9**
05/13/14		Review	**Review for Final Exam**
05/15/14	**Final Exam**		**Comprehensive Final**

MathXL®

How to Register and Enroll in Your Course

Welcome to MathXL! Your instructor has set up a MathXL course for you.

The course name is: Math 170 Sp'14 20155 TR 3:05-5:10

It is based on this textbook: *Lial: Calculus with Applications, 10e*

To join this course, you need to register for MathXL and then enroll in the course.

1. Registering for MathXL

Before you begin, make sure you have the access code that comes with your MathXL Access Kit.

To register or buy access, go to www.mathxl.com, click the **Student** button in the Register section, and then follow the instructions on the screen.

2. Enrolling in your instructor's course

After registering, log in to MathXL with your username and password. To enroll in this course, enter the following Course ID:

The Course ID for your course is: `XL1F-I16Q-801Z-8GL2`

Need more help?

To view a complete set of instructions on registering and enrolling, go to www.mathxl.com and visit the Tours page.