Basic Course Information

Semester:	**Spring 2015**	Instructor Name:	**Rick Castrapel**
Course Title & #:	**Introductory Calculus with Applications MATH 170**	Email:	**rick.castrapel@imperial.edu**
CRN #:	**20389**	Webpage:	**http://spaces.imperial.edu/rick.castrapel**
Classroom:	**2751**	Office #:	**2766**
Class Dates:	**Feb. 17 - Jun. 11, 2015 Drop deadline: May 16**	Office Hours:	**MW 3-4 pm, TR 2-3 pm or by appointment**
Class Days:	**Tuesday/Thursday**	Office Phone #:	**760-355-6505**
Class Times:	**3:05pm-5:10pm**	Emergency Contact:	**Silvia Murray 760-355-6201 or Ofelia Duarte 760-355-6155**
Units:	**4**		

Course 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. (CSU) (UC credit limited. See a Counselor.)

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)

Course Objectives

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.

Textbooks & Other Resources or Links

Lial, Calculus with Applications, Brief Version (10th Edition) ISBN-13: 978-0321748577
Subscription to MathXL (see attached page)

Course Requirements and Instructional Methods

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.

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.

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

Course Grading Based on Course Objectives

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 Grading Scale

Midterm Tests	400 points		90-100 %	A
MathXL Homework	200 points		80-89%	B
Final Exam	200 points		70-79 %	C
Total	**800 points**		60-69 %	D
			< 60 %	F

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. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- 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

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- Food and Drink are prohibited in all classrooms.   Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- Disruptive Students: 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 coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting 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 "cite a source" correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing 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 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) using a commercial term paper service.

Additional Student Services

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- **Blackboard Support Site.**   The Blackboard Support Site provides a variety of support channels available to students 24 hours per day.
- **Learning Services.**   There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your Campus Map for the Math Lab; Reading, Writing & Language Labs; and the Study Skills Center.
- **Library Services.**   There is more to our library than just books. You have access to tutors in the Study Skills 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. Please contact them 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 Student Health Fee.
- **Student Health Center.** A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District and El Centro Regional Center provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC Student Health Center at 760-355-6310 in Room 2109 for more information.
- **Mental Health Counseling Services.**   Short-term individual, couples, family, and group therapy are provided to currently enrolled students. Contact the IVC Mental Health Counseling Services at 760-355-6196 in Room 2109 for more information.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC General Catalog.

Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC Library Department provides numerous Information Literacy Tutorials to assist students in this endeavor.

Anticipated Class Schedule/Calendar

Math 170 Spring 2015 Tentative Schedule			
Date	Text	Event	Notes
02/17/15	1.1		Course Introduction; Slopes and Equations of Lines
02/19/15	1.2		Linear Functions
02/24/15	1.3		The Least Squares Line
02/26/15	2.1, 2.2		Properties of Functions; Translations and Reflections
03/03/15	2.3, 2.4		Polynomial and Rational Functions; Exponential Functions
03/05/15	2.5, 2.6		Logarithmic Functions; Applications
03/10/15	3.1	Review	Limits; Review for Test 1
03/12/15		Test 1	**Chapters 1 and 2**
03/17/15	3.2, 3.3		Continuity, Rates of Change
03/19/15	3.4, 3.5		The Derivative; Graphical Differentiation
03/24/15	4.1, 4.2		Finding Derivatives; Product and Quotient Rules
03/26/15	4.3, 4.4		Chain Rule; Exponential Functions
03/31/15	4.5, 5.1		Logarithmic Functions; Increasing and Decreasing
04/02/15		Test 2	**Chapters 3 and 4**
04/07/15			**Spring Break**
04/09/15			
04/14/15	5.2, 5.3		Relative Extrema; Higher Derivatives
04/16/15	5.4, 6.1		Curve Sketching; Absolute Extrema
04/21/15	6.2, 6.3		Applications
04/23/15	6.4, 6.5		Implicit Differentiation; Related Rates
04/28/15	6.6	Review	Differentials: Linear Approximation; Review for Test 3
04/30/15		Test 3	**Chapters 5 and 6**
05/05/15	7.1		Antiderivatives
05/07/15	7.2, 7.3		Substitution; Area and the Definite Integral
05/12/15	7.4		The Fundamental Theorem of Calculus
05/14/15	7.5, 7.6		Area Between Two Curves; Numerical Integration
05/19/15	8.1, 8.2		Integration by Parts; Volume and Average Value
05/21/15	8.3, 8.4		Continuous Money Flow; Improper Integrals
05/26/15	9.1		Functions of Several Variables
05/28/15	9.2		Partial Derivatives
06/02/15	9.3	Review	Maxima and Minima; Review for Test 4
06/04/15		Test 4	**Chapters 7, 8, 9**
06/09/15		Review	**Review for Final Exam**
06/11/15	**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'15 20389 TR 3:05-5:10pm
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: XL1P - S1K5 - 301Z - 9GL2

Need more help?

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