

Basic Course Information				
Semester:	FA24	Instructor Name:	Leobardo Rosales Jr	
o <del>-</del> o #	MATH 192: Analytic			
Course Title & #:	Geometry and Calc I	Email:	leobardo.rosales@imperial.edu	
CRN #:	11253	Webpage (optional):		
Classroom:	2700-2722	Office #:		
			Wednesdays 2-3pm	
Class Dates:	8/13-12/5	Office Hours:	in 2700-2721	
Class Days:	Tuesdays and Thursdays	Office Phone #:		
			Division administrator Silvia	
			Murray	
Class Times:	7:30am-10:05am	Emergency Contact:	silvia.murray@imperial.edu	
		Class		
Units:	4	Format/Modality:	Face to face	

## **Course Description**

A first course in differential and integral calculus of a single variable: functions; limits and continuity; techniques and applications of differentiation and integration; Fundamental Theorem of Calculus. Primarily for Science, Technology, Engineering & Math Majors. (C-ID: MATH 210) (CSU, UC credit limited. See a counselor.)

# Course Prerequisite(s) and/or Corequisite(s)

MATH 190 - or equivalent with a grade of "C" or better, or appropriate placement as defined by AB705.

## **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 problem solving strategies by identifying an appropriate method to solve a given problem, correctly set up the problem, perform the appropriate analysis and computation, and share their interpretation of the conclusion or the outcome, using correct grammar or in an oral presentation. This outcome will be assessed through selected exercises on exams throughout the semester.

## **Course Objectives**

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

- 1. Compute the limit of a function at a real number
- 2. Determine if a function is continuous at a real number
- 3. Find the derivative of a function as a limit
- 4. Find the equation of a tangent line to a function



- 5. Compute derivatives using differentiation formulas
- 6. Use differentiation to solve applications such as related rate problems and optimization problems
- 7. Use implicit differentiation
- 8. Graph functions using methods of calculus
- 9. Evaluate a definite integral as a limit
- 10. Evaluate integrals using the Fundamental Theorem of Calculus
- 11. Apply integration to find area

# **Textbooks & Other Resources or Links**

Calculus: Early Transcendentals 9th edition by James Stewart, ISBN: 978-1-337-61392-7.

I will provide more information at the first lecture.

# **Course Requirements and Instructional Methods**

The course will consist of lectures, weekly homework, four in-class Tests, and a Final. You will need blank printer paper for the Tests and Final. You may use recycled printer paper, so long as the printed side is not math related.

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 16-week class. For this class that means approximately 12 hours of class and out-of-class time per week.

# **Course Grading Based on Course Objectives**

You grade will be computed as follows:

HOMEWORK 30% 4 TESTS 40% FINAL 30%

The following grading scale will be used: 90% and above is an A, 80% and above is a B, 60% and above is a C, and 50% and above is a D. Below 50% is an F. This is subject to the performance of the class, in that I will aim to give As to between 20-30% of the students, and Bs to between 20-30% of the students.

# Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any Updated 6/2023



uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

## **Course Policies**

- 1. The definition of an excused absence is one which is out of your immediate control. This can include but is not limited to illness, accident, appointments set by official agencies. It does not include sleeping-in or forgetting about class. Send me an email if you must or have missed class due to an excused absence.
- 2. If you do not attend the first class meeting without an excused absence, then you will be dropped from the class. Send me an email if you must or have missed the first class due to an excused absence.
- 3. Homework will be assigned and due through Canvas. No late homework will be accepted. If you cannot submit an assignment due to an excused absence, then that homework grade will be replaced by the grade on your next homework, or for the last homework by the average of your homework grades. Send me an email if you cannot or did not submit a homework due to an excused absence.
- 4. If you miss a Test due to an excused absence, then your score for that Test will be replaced by your score for the next Test, or for Test 4 by the score on your Final. Send me an email if you cannot or did not take a Test due to an excused absence.
- 5. Attending the Final is absolutely mandatory. There is no make-up or replacement for the Final.
- 6. All general rules, including rules of etiquette, of Imperial Valley College apply.

## **IVC Student Resources**

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <u>http://www.imperial.edu/studentresources</u> or click the heart icon in Canvas.

## **Other Course Information**

To be updated.



Week	Tuesday	Thursday
1		
Aug 13 and 15	Introduction, 2.1, 1.1-5	2.1, 2.2
2		
Aug 20 and 22	2.3	2.1; 2.5
3		
Aug 27 and 29	2.4, 2.7, 2.8	2.8, <b>Test 1</b>
4		
Sep 3 and 5	3.1	3.2
5		
Sep 10 and 12	3.3	3.4
6		
Sep 17 and 19	3.5, 3.6	3.6, <b>Test 2</b>
7		
Sep 24 and 26	2.2, 2.6	4.4
8		
Oct 1 and 3	4.4	4.4, 2.3
9		
Oct 8 and 10	3.10	3.11, <b>Test 3</b>
10		
Oct 15 and 17	3.7, 3.8	3.9
11		
Oct 22 and 24	4.1	4.3
<b>12</b>		4.7
Oct 29 and 31	4.5, 4.6	4.7
13	4.0	4.0 Test 4
Nov 5 and 7	4.2	4.8, <b>Test 4</b>
14	40.54	51 52 52
Nov 12 and 14 15	4.9, 5.4	5.1, 5.2, 5.3
	52 53	5.5
Nov 19 and 21 16	5.2, 5.3	5.5
Nov 26 and 28	HOLIDAY	HOLIDAY
Final		
Dec 3 or 5	Review	Final
		T IIIGI

\*\*\*Subject to change without prior notice\*\*\*