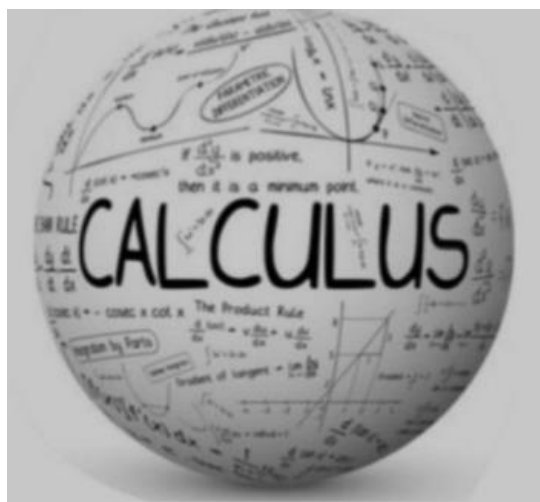


Basic Course Information

Semester:	Spring 2025	Instructor Name:	Jill Nelipovich
Course Title & #:	Math 192: Analytical Geometry and Calculus I	Email:	Jill.nelipovich@imperial.edu
CRN #:	20065	Webpage (optional):	CANVAS
Classroom:	2723	Office #:	2760
Class Dates:	02/10/25 – 06/06/25	Student Hours:	M: 1:00 – 1:30 p.m. T/ TR: 9:00 – 9:30 a.m. T: 11:20 – 12:50 p.m. **And by appt.
Class Days:	MW	Office Phone #:	760-355-6297
Class Times:	7:30 – 10:05	Emergency Contact:	Silvia Murray 760-355-6201
Units:	4	Class Format/Modality:	In person

Welcome Students! The spring semester will be fun! We get in person learning – which is a HUGE benefit to learning. It provides you the opportunity to collaborate with your peers, get real-time help with questions and create relationships with others that will push you academically.



- **The Algebra:** Do you remember all the algebra skills you learned so long ago? We will revisit those skills and maybe learn some cool stuff along the way.
- **My Job?** To be available for you to help you succeed.
- **Your Job?** Work hard to make your success happen. I cannot learn the material for you. You need to do that part on your own.
- **What does success mean?**
 - **To be successful in this class and future courses at IVC and the university.
 - **To be able to problem solve in a “high stakes” situation, such as a job interview. Yes, they do ask you math questions, engineering questions and some prospective employers will have you in a room with other candidates and watch how you interact and problem solve.



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)

PREREQUISITE: 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. (ILO1, ILO2)

Textbooks & Other Resources or Links

Stewart, J., Clegg, D., Watson, S. 2023. *Calculus: Early Transcendentals, 9th*. Cengage. ISBN: 978-1337613927.

Calculator: Only scientific calculators are permitted on exams. Exams will have calculator and a non-calculator portion. Graphing calculators are useful for homework, but they are not required for this course, and are not permitted during exams

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



Course Requirements and Instructional Methods

Homework: Homework will be collected on a regular basis. I will randomly choose a couple of problems to grade on each homework assignment. If you do not do the homework for 3.1, you will be lost in the lecture for 3.3. It is essential that you keep up with the class. Create a schedule and allocate 1.5 hours per day to spend on calculus homework. The homework will reinforce what we do in class. Work in groups and talk through the homework. AI is not present on your exams.

Projects: There will be two to three projects assigned throughout the semester. You make work individually or with groups of up to four students.

Classwork/Quizzes: Classwork and quizzes will be assigned on a regular basis. Each student will need to turn in their own quiz. It is expected that you will collaborate with your classmates.

Exams: There will be three exams given throughout the course. There will be a calculator and non-calculator portion of each exam. The exams will consist of a page of the basics (drill questions), multiple-choice, free response and applications. There are no cheat sheets on the exams. If there are any formulas or processes that I feel you do not need to have in your “back pocket”, I will provide you with the necessary information. All cell phones and watches must be turned off and placed upside down on your desk. There are no restroom breaks once the exam is passed out. You may take a restroom break during the calculator and non-calculator portions of the exam.

Final Exam: The final exam is cumulative

Make-Up Work: Collected class work is primarily about attendance and participation, and therefore it cannot be “made up”. Class work counts for 10% of your grade. And, I will drop the two lowest scores. It is only when students habitually miss a lot of class that the points start to add up and have a significant impact. [If you do have a true medical or personal emergency during the semester, then there are greater concerns than missing a few class days].

Make-up Exams: Missing an exam should be a RARE occurrence. However, each student has the opportunity to make up ONE missed exam in the event of a true emergency. This opportunity is the Universal Make-up Exam, which takes place toward the end of the spring semester. Any student who misses a test will take the same Universal Make-up Exam, regardless of which exams needs replacing. This Make-up Exam will contain material from each of Exams 1 – 3.

Students who do NOT miss any of Exam 1 – 3 will have the option of either ignoring the make-up exam with no penalty to their grade, or attempting the make-up exam and replacing their lowest exam score if their lowest score is beaten. Please note that this option is only available for students who do not miss any of the regularly scheduled exams.

Course Grading Based on Course Objectives

<u>Evaluation</u>		<u>Grade Scale</u>
Classwork/Quizzes	10%	$90\% \leq x \leq 100\%$ A
Projects	5%	$80\% \leq x < 90\%$ B
3 Exams x 100 points each	60%	$70\% \leq x < 80\%$ C
A Final Exam (Cumulative)	<u>25%</u>	$60\% \leq x < 70\%$ D
	100%	$x < 60\%$ F

The grade that is earned, according to the grading scale above, is the grade that will be received. Grades are not subjective. Grades are not negotiable. All students are treated equally. Typical rounding rules will apply.

Note: The final exam in this course is cumulative and mandatory for all 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 uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

AI can do most all of the math for you. As instructors, we are all well-aware of outside resources that you can use to assist you. Keep in mind that you are cheating yourself, not me. It is expected that you learn the material. When you go on interviews in some fields, the employers want you to demonstrate that you have a basic understanding of mathematics, engineering, statistics, etcetera (depending on the field). The potential employees who learn the material will excel and the others will be uber drivers.

Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through **DSPS**, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.



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Course Policies

Attendance: A student who fails to attend the first meeting of a class will be dropped by the instructor (if I have not heard from the student). It is the student's responsibility to drop or officially withdraw from the class.

Regular attendance is 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. Absences attributed to the representation of the college at officially approved events (conferences, contests, athletics, and field trips) will be counted as an "excused" absence.

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

Plagiarism: Taking and representing as one's own the writing or ideas of others, without citing the source.

Cheating: You are expected to do your own work and not "borrow" from another student. You are expected to collaborate and work together in a way that helps you learn the material. AI: Use to CHECK your work, not DO your work.

Anyone caught cheating will receive a zero on the assignment or exam and will be reported to the Campus Disciplinary Officer. Be aware that classmates will often let the instructor know of a cheating classmate. Do not assume that your peers agree with cheating! Most don't

Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Making SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at finaid@imperial.edu.

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 <http://www.imperial.edu/studentresources> or click on the heart icon in Canvas.

CANVAS LMS: Canvas is Imperial Valley College's Learning Management System. The Canvas Student Guides Site provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.

IVC's services include, but are not limited to:

- Tutoring Labs
- Career Services Center
- Child Development Center
- Student Counseling and Health Services
- Military and Veteran Success Center
- Extended Opportunity Program and Services (EOPS)
- Disabled Student Programs and Services
- Student Equity & Achievement Program*
- Library Services and Information Literacy

What if I cannot afford a book? We are here to help:
The Student Equity and Achievement Program.

Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and/or Topic
2/10/25	Introduction, 2.1, 2.2
2/12/25	Chapter 2.3, 2.4
2/17/25	No class
2/19/25	Chapter 2.5, 2.6
2/24/25	Chapter 2.6, 2.7
2/26/25	Chapter 2.7, 2.8
3/03/25	Review
3/05/25	Exam 1
3/10/25	3.1, 3.2, 3.3
3/12/25	3.3, 3.4, 3.5
3/17/25	3.5, 3.6
3/19/25	3.7, 3.8, 3.9
3/24/25	3.9, 3.10, 3.11
3/26/25	4.1, 4.2
3/31/25	4.2, 4.3
4/02/25	4.4
4/07/25	Catch up, Review
4/09/25	Exam 2
4/14/25	4.7
4/16/25	4.8
4/21/25	Spring Recess
4/23/25	Spring Recess
4/28/25	4.8, 4.9
4/30/25	5.1, 5.2
5/05/25	5.2
5/07/25	5.3
5/12/25	Catch up, Review
5/14/25	Exam 3
5/19/25	5.4, 5.5
5/21/25	5.5
5/26/25	No Class
5/28/25	Review
6/02/25	
6/04/25	Final Exam

Subject to change without prior notice



Chapter 2 Homework			
Due Date	Sections	Questions	I need help on these problems:
2/12	2.1	1, 3, 5	
2/17	2.2	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43	
	2.3	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 41, 43, 51, 55	
2/19	2.4	1, 3, 5, 19, 21	
2/24	2.5	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 41, 43, 45, 47, 49, 55, 57	
2/26	2.6	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 47, 49, 51, 57	
3/03	2.7	1, 3, 5, 7, 11, 19, 21, 23, 25, 29, 37, 43, 45, 47, 51, 55	
	2.8	1, 3, 5, 7, 9, 11, 13, 15, 21, 23, 25, 27, 29, 31, 37, 41, 47, 49, 51	



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