



## Basic Course Information

Semester:	<b>Summer 2024</b>	Instructor Name:	<b>Jill Nelipovich</b>
Course Title & #:	<b>Analytic Geometry and Calc 1</b>	Email:	<b>Jill.nelipovich@imperial.edu</b>
CRN #:	<b>30103</b>	Webpage (optional):	<b>Canvas</b>
Classroom:	<b>2728</b>	Office #:	<b>2768</b>
Class Dates:	<b>June 17 – July 25</b>	Office Hours:	<b>By appointment</b>
Class Days:	<b>M,T,W,R</b>	Office Phone #:	<b>760-355-6297</b>
Class Times:	<b>8:05 – 11:55</b>	Emergency Contact:	<b>760-355-6201</b>
Units:	<b>4</b>	Class Format/Modality:	<b>Face-to-face</b>

## 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.

## Textbooks & Other Resources or Links

Stewart, James, Clegg, Daniel, Watson, Saleem, 2021. *Calculus: Early Transcendentals*. 9th Brooks/Cole. ISBN: 9781337613927 or 9780357022269



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## 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

1. Class participation: Be present in mind, body and spirit! You need to participate to succeed. Calculus is not easy. Your algebra must be strong! Your trig – yep! You need that knowledge too (especially in Calc 2). Do not spend time on your cell phone. Time on your cell phone is time away from calculus.
2. Love to learn! Embrace the productive struggle. Take joy in not knowing how to do a problem and working it out with your peers. Learn a little every day and refrain from learning a lot in one day. You need time to digest the material.
3. Exams – Four exams! Study a little bit every day.
4. Final Exam – you get to share with me what you learned!
5. No Make-up tests. If you miss an exam, the week before finals, EVERY student will have the opportunity to get some points back on their lowest test.

## Course Grading Based on Course Objectives

Quizzes: In class and on Canvas.....	10%
Exams: (three).....	60%
Projects.....	5%
Final Exam.....	25%

## 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.

Updated 6/2024

## Course Policies

1. Have fun
2. Don't cheat
3. 10 hours per week on the course outside of class is about 1 hour 30 minutes daily. Spend the time now rather than playing catch up in future courses.
4. Ask questions! Don't be afraid to ask the "stupid question". I am 99% certain that someone else in the class has the exact same question.
5. Engage with the material from DAY ONE! There is no down time in calculus!

## Other Course Information

*Study hours with Jason! Study, Study, Study!!!*

## 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 the heart icon in Canvas.

## Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and/or Topic
June 17	Syllabus & Introduction; 2.1, 2.2
June 18	2.3, 2.4
June 19	Holiday
June 20	2.5, 2.6
June 24	2.7, 2.8
June 25	Catch up, Review
June 26	Exam 1
June 27	3.1, 3.2
July 1	3.3, 3.4
July 2	3.5, 3.6
July 3	3.7, 3.8
July 4	Holiday
July 8	3.9, 3.10, 3.11
July 9	4.1, 4.2, Review
July 10	Exam 2 – Chapter 3
July 11	4.3, 4.4
July 15	4.5, 4.6
July 16	4.7, 4.8
July 17	4.9, 5.1
July 18	Exam 3 – Chapter 4
July 22	5.2, 5.3
July 23	5.4, 5.5
July 24	Review
July 25	Final Exam

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