IMPERIAL VALLEY COLLEGE

## Basic Course Information

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|---|---|---|---|
| Semester: | **Winter 2025** | Instructor Name: | **Jill Nelipovich** |
| Course Title & #: | **Math 190: Precalculus** | Email: | **Jill.nelipovich@imperial.edu** |
| CRN #: | **15118** | Webpage (optional): | **Canvas** |
| Classroom: | **2722** | Office #: | **2760** |
| Class Dates: | **1/2/25 – 2/3/25** | Office Hours: | **By appt** |
| Class Days: | **M-F** | Office Phone #: | **760-355-6297** |
| Class Times: | 7:30 – 12:10 | Emergency Contact: | **760-355-6201** |
| Units: | 5 | Class Format/Modality: | Face-to-face |

## Course Description

Preparation for calculus: polynomial, absolute value, radical, rational, exponential, logarithmic, and trigonometric functions and their graphs; analytic geometry, polar coordinates. (UC credit limited. See a counselor) (CSU/UC)

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

Appropriate placement as defined by AB705 or successful completion of Intermediate Algebra.

## Student Learning Outcomes

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

Textbook: (not required) Blitzer, Robert. 2022. Precalculus. 7th Pearson. ISBN: 9780137321681 A scientific calculator is required. A graphing calculator, such as the TI-83+, is recommended, but not required. Desmos will work fine on a computer.

## Course Grading Based on Course Objectives

A: 90% – 100%  B: 80% – 89%  C: 70%– 79%  D: 60% – 69%  F:  Less than 60%

Homework: ……5%  Quizzes:……10%

Exams:……60% (3 exams: 20% each)  Final Exam……25%

Updated 1/7/2025

## Course Objectives

Upon satisfactory completion of the course, students will be able to:
1. Solve systems of equations and inequalities.
2. Solve equations in one variable including polynomial, rational, radical, absolute value, exponential, logarithmic, piecewise-defined functions, trigonometric and inverse trigonometric functions; and solve inequalities in one variable, including polynomial, rational and absolute value inequalities.
3. Demonstrate an understanding of the relationship between functions and their inverses algebraically and graphically.
4. Graph functions and relations in rectangular and polar coordinates. Analyze the graphs of polynomial, rational, exponential and logarithmic functions based on particular characteristics of the function.
5. Apply transformations to the graphs of functions and relations.
6. Analyze the results from equations and/or graphs of functions and relations;
7. Solve applied problems from a variety of disciplines that can be modeled by linear, polynomial, absolute value, rational, radical, exponential and logarithmic functions.
8. Evaluate trigonometric functions of an angle in radians and degrees.
9. Simplify trigonometric expressions.
10. Solve trigonometric equations, triangles and applied problems that can be modeled by trigonometric functions.
11. Identify special triangle and their related angle and side measures.
12. Graph trigonometric functions and their inverse functions and apply changes in period, phase and amplitude to generate new graphs
13. Prove trigonometric identities and use the identities to solve for exact values, simplify expressions and solve trigonometric equations.
14. Classify and graph conic sections.
15. Analyze parametric and polar equations, functions and graphs. 16. Evaluate sequences and series.

## Course Requirements and Instructional Methods

1. Homework: It is expected that you will complete your homework. Homework will be counted as a project towards your final grade. It is due on the day of the exam. What is not completed by the due date will not be graded at a later date. Keep homework organized in a separate notebook. It should not be integrated within your lecture notes when you turn in your homework.
2. Quizzes: Quizzes will be given daily. These will be done either in groups or individual If the homework is individual, you will be able to use your homework notebook.
3. Exams: 3 exams: Chatpers 1 – 3; Chapters 4 – 6; Chapters 7 – 9
4. Final Exam: Cumulative Chatpers 1 – 10.

There are no make-up exams. If you should miss an exam, you must provide excused documentation. If you should miss an exam with excused documentation, I will replace your final grade with the final exam score. If anyone does better on the final, I will replace your lowest grade with the grade from the final exam. There are no make-up quizzes. They are required to be turned in in person on the due date. That said, if you are in the hospital, I will make an exception.

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## 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.

I encourage you to work together on your homework, however copying someone else's homework to "finish the assignment" is not permitted. Copying answers from Chegg or Slater or chat GPT or photo math is not permitted. You are cheating yourself and not allowing yourself to grow academically.

On exams, you are to do your own work. There are no calculators allowed, unless otherwise specified. All phones will be turned OFF and turned upside down on your desk. Watches must be placed on the desk as well.

## Course Policies

1. *Show up to class by 7:45 at the latest.*
2. *Do your homework.*
3. *Do your quizzes*
4. *Seek help in a timely manner*
5. *Use the embedded tutor outside of class.*
6. *Do your homework*
7. *Do your homework*
8. *Work together and collaborate.*
9. *Do you homework*
10. *Do not cheat off thy neighbor in an exam. If so, your exam grade will be a zero and you will not be able to replace that exam.*

## Other Course Information

*Have fun and prep yourself for calculus* 😊

## 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.

Updated 1/7/2025

IMPERIAL VALLEY COLLEGE

## Anticipated Class Schedule/Calendar

| Date or Week | Activity, Assignment, and/or Topic |
|---|---|
| January 2 | Chapter 1 |
| January 3 | Chapter 1, Chapter 2 |
| January 6 | Chapter 2 |
| January 7 | Chapter 2 |
| January 8 | Chapter 2, Chapter 3 |
| January 9 | Chapter 3 |
| January 10 | Chapter 3, Chapter 4, Review |
| January 13 | Exam 1: 8:00 – 10:15 (Chapters 1 – 3); Chapter 4 (10:30 – 12:00 |
| January 14 | Chapter 4 |
| January 15 | Chapter 5 |
| January 16 | Chapter 5 |
| January 17 | Chapter 6 |
| January 20 | Holiday |
| January 21 | Chapter 6 |
| January 22 | Catch up, Review Exam 2 |
| January 23 | Exam 2, Chapter 7 |
| January 24 | Chapter 7 |
| January 27 | Chapter 8 |
| January 28 | Chapter 9 |
| January 29 | Review, Exam 3 |
| January 30 | Chapter 10 |
| January 31 | Review |
| February 3 | Final Exam |

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