



## Basic Course Information

Semester:	<b>Fall 2024</b>	Instructor Name:	<b>Diana Roman</b>
Course Title & #:	<b>MATH190- Pre-Calculus</b>	Email:	<b>diana.roman@imperial.edu</b>
CRN #:	<b>10061</b>	Webpage (optional):	<b>Canvas</b>
Classroom:	<b>2721</b>	Office #:	<b>2768</b>
Class Dates:	<b>August 12-December 7, 2024</b>	Office Hours:	<b>Mondays 2-3pm (Rm 2768) Tuesdays 9-10am (Rm 2768) Wednesdays 2-3pm (Zoom) Thursdays 9-10am (Zoom)</b>
Class Days:	<b>T/TH</b>	Office Phone #:	<b>(760)355-5755</b>
Class Times:	<b>2:40PM-5:45PM</b>	Emergency Contact:	<b>Division Secretary: Silvia Murray (silvia.murray@imperial.edu)</b>
Units:	<b>5</b>	Class Format/Modality:	<b>Face-to-face (in person)</b>

## Course Description

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

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

**PREREQUISITES:** - Appropriate placement as defined by AB705 or, MATH 140 - or equivalent with a grade of "C" or better.

## 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. 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.
2. Solve systems of equations and inequalities.



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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.

## Textbooks & Other Resources or Links

### MyMathLab Access Code (REQUIRED)

You will need to purchase a MyMathLab 18-week access code to access and complete the homework assignments. Access codes sometimes come included with new, sealed physical copies of the textbook, or you can purchase an access code through the IVC bookstore or through MyMathLab directly. Please use your IVC email when registering for MyMathLab. Refer to the pdf under "Files" on Canvas for step-by-step instructions on how to enroll in MyMathLab.

### Textbook (REQUIRED, but included with MyMathLab Access Code)

With your MyMathLab access code, you will have full access to the e-book for the class:  
Blitzer, Robert. 2022. *Precalculus*. 7th Pearson. ISBN: 9780137321681.

### Scientific Calculator (REQUIRED)

A scientific calculator, such as a TI-30 is required. Graphing calculators and cell phone calculators are NOT allowed.

## Course Requirements and Instructional Methods

### Lecture

Our class time will consist of a combination of lecture, individual practice, and group work. Participation and practice are key to understanding the material. You are encouraged to ask questions during class. A notes template for each chapter will be posted on Canvas under the "Files" tab. You may print the template and use it to follow along during class if you wish.



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## Homework

Homework will be assigned and completed exclusively through MyMathLab. In order to access and complete the homework, you must make a MyMathLab account and enroll using the course ID below. A pdf file outlining the step-by-step instructions for enrolling on MyMathLab can be found on Canvas under the “Files” section.

Course ID: roman99689

There will be MyMathLab homework assignments for each chapter. I suggest you work on each chapter regularly after each section is covered in lecture. You will have unlimited attempts for each homework problem. Homework for each chapter will be due the Sunday after we finish covering that chapter in class. You can refer to MyMathLab for exact due dates. All assignments are to be completed by the due date. It is the student’s responsibility to check MyMathLab regularly and stay on top of all due dates. You may continue working on homework assignments after the due date, but problems completed after the due date will be awarded 50% credit. Grades from MyMathLab homework will be updated on Canvas by the instructor at the end of the semester. Since homework can be completed for partial credit after the due date has passed, no homework due date extensions will be given.

## Quizzes

Quizzes will be given during class (with or without prior notice). Students will be given 15 minutes to complete each quiz individually (unless otherwise announced). Students who arrive late will not be allowed additional time to complete the quiz. All quizzes will be open notes. However, I recommend that you study and familiarize yourself with the material prior to each quiz since 15 minutes is not enough time to extensively review notes while completing each quiz. One lowest quiz score will be dropped. If you are absent during a day where there was a quiz, that will be considered your lowest score, and that quiz will be dropped from your grade. No make-up quizzes will be offered. Phones (including phone calculators) are not allowed during quizzes. The best way to prepare for quizzes is to practice the assigned MyMathLab homework problems.

## Exams

There will be 3 exams and a final. The final exam is cumulative, so it will cover all of the material from the semester. You will be allowed to use one hand-written (no photocopies; not typed) flashcard (3”x5”, front and back) for each exam. Please be on time to exam days—you will not be given additional time to complete exams if you arrive late. Once you begin an exam, you are expected to stay in the classroom until your exam is completed. All exam dates are listed on the Course Calendar at the end of this document, so please plan accordingly. For exams 1-3, if you have a prior commitment that interferes with an exam date, you must make arrangements with the instructor to complete the exam 1-3 days ahead of time. No one will be allowed to take an exam after the rest of the class has already taken it. There is no make-up for the final exam.

## Course Grading Based on Course Objectives

All grades will be shown on Canvas. Your grade will be weighted with the guidelines shown below.

Homework	15% of grade
Quizzes	15% of grade
Exams	45% of grade
Final	25% of grade



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Final class grade is based on the following guidelines:

Percent $\geq$ 90	A
$80 \leq$ Percent $<$ 90	B
$70 \leq$ Percent $<$ 80	C
$60 \leq$ Percent $<$ 70	D
Percent $<$ 60	F

Grades earned according to the point scale above will be the final grade you receive for the class. All students are graded by the same standards and grades are nonnegotiable.

### 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.

### Course Policies

#### Classroom Behavior

Behavior should not interfere with the learning of others. Civil and respectful conduct towards fellow students and towards the instructor is expected. Inappropriate behavior will be documented and may be subjected to disciplinary action.

#### Cell phone Policy

Cell phone use (including texting) is not allowed and cell phones should be turned off or on silent mode during class time. If you need to take an important call during class, please leave the classroom without disrupting others. Cell phone use during quizzes and exams is prohibited and violations to this policy will be considered academic dishonesty. Using a cell phone or any other electronic device during quizzes or exams will result in a grade of 0 for that quiz/exam.

#### Attendance and Email Communication

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. Regular attendance in all classes is expected of all students. A student with continuous, unexcused absences may be dropped. If you happen to miss any class lectures, it is your responsibility to get caught up with the material you missed.

All email communications should be done through IVC email or Canvas. No personal emails should be used. You are expected to check your IVC email and Canvas regularly, several times a week. Announcements will be sent through Canvas. Please check Canvas several times a week!!



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### **Open Door Policy**

Please feel free to contact me or attend office hours if you have any questions, concerns, or would like additional help. I have high expectations for all of you and believe you can all succeed in this class if you put in the effort.

### **Embedded Tutor**

This class has an assigned embedded tutor. They will be present during class time and will be holding tutoring sessions weekly for anyone in the class to attend. Please attend these sessions if you can—they will help you be successful in the class!

### **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.

The Learning Services Department's tutoring center offers free tutoring for MATH190 in-person in building 1500 (library) and online via Zoom. Contact the tutoring center or visit <https://www.imperial.edu/student-support/study-skills-center/index.html> for more information.

The MESA Center also offers free tutoring for MATH190. Contact MESA or visit <https://www.imperial.edu/courses-and-programs/divisions/economic-and-workforce-development/mesa/index.html> for more information.

Visit <https://www.imperial.edu/student-support/index.html> for more information regarding additional student resources, including:

- Disability Support Programs & Services (Refer to them if accommodations are needed)
- Counseling & Transferring Services
- Student Health Services
- Food & Housing Services
- Career Services
- Undocumented Student Resources
- Education Technology
- Technology Support Services
- Library & Tutoring Services
- Military & Veteran Success Center
- MESA Center
- EOPS/CARE/NextUp Services



## Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and/or Topic
Week 1 August 13 & 15	Syllabus & Introduction Chapter 1
Week 2 August 20 & 22	Chapter 1 Chapter 2
Week 3 August 27 & 29	Chapter 2
Week 4 September 3 & 5	<b>Exam 1 (September 3)</b> Chapter 3
Week 5 September 10 & 12	Chapter 3
Week 6 September 17 & 19	Chapter 4
Week 7 September 24 & 26	Chapter 4 Chapter 5
Week 8 October 1 & 3	Chapter 5 Review <b>Exam 2 (October 3)</b>
Week 9 October 8 & 10	Chapter 6
Week 10 October 15 & 17	Chapter 6 Chapter 7
Week 11 October 22 & 24	Chapter 7 Chapter 8
Week 12 October 29 & 31	Chapter 8 Review <b>Exam 3 (October 31)</b>
Week 13 November 5 & 7	Chapter 9
Week 14 November 12 & 14	Chapter 9 Chapter 10
Week 15 November 19 & 21	Chapter 10
November 25-30	<b>Thanksgiving Break- No classes; Campus closed</b>
Week 16 December 3 & 5	Review <b>Final Exam (December 5)</b> <b>MyMathLab closes on December 5<sup>th</sup> at 2:30pm</b>

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