

Basic Course Information			
Semester:	Fall 2024	Instructor Name:	Zhong Hu
Course Title & #:	Math 190	Email:	Zhong.hu@imperial.edu
CRN #:	10060	Webpage (optional):	
Classroom:	3211	Office #:	2760.1
Class Dates:	8/12/24 – 12/6/24	Office Hours:	MW: 6:20 pm to 7:05 pm (in zoom) R: 5:25 pm to 5:55 pm ( In my office 2760.1) F: 10:10 am to 12:10 pm (In Zoom)
Class Dates:	MWF	Office Phone #:	760-355-6355
Class Times:	8 am to 10:05 am	Emergency Contact:	Email me
Units:	5	Class Format/Modality:	In Person on Campus

# **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)

# **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.

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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**

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.

#### **Course Requirements and Instructional Methods**

#### Homework

Homework will be assigned at each class meeting. They should be on stapled arranged in the correct order. Please write your name and section number on the top right corner. It is your responsibility to check the homework assignment even if you are absent. Homework will be due by the date of each test.

Or You can do homework using MyMathLab (registration instructions at the last page).

The Course ID is hu83743

#### Quiz/Pop-quiz/Group Work

A quiz or group work may be given at any time during any class period. It may not be announced. The number of quizzes or group work in the semester will be instructor's discretion. The purpose is to provide a feedback on the learning outcome. The lowest scores will be dropped.

#### Tests

There will be three tests. The purpose of these tests is to check your understanding of the concepts covered in the course. Most of the questions on these tests will require showing a significant amount of work. A correct answer with insufficient work will receive partial credit or no credit.

\*Bring your own papers and pens/pencils on test days.

#### **Final Exam**

At the end of the semester, a COMPREHENSIVE/CUMULATIVE Final Exam will be given. If you miss the final, it will be recorded as a zero.



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 semester. WASC has adopted a similar requirement.

### **Course Grading Based on Course Objectives**

Grading Policy			
(Pop) Quiz /Group Work	10%		
Homework	10%		
Tests	60%		
Final Exam	20%		

Total

100%

# Grading Scale for determining the final grade

A: 90%-100% B: 80%-89% C: 70%-79% D: 60%-69% F: 0%-59%

# 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**

Attendance and drop Policy You must attend the first day of class or you will be dropped from the course as a 'No Show.' 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 whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. It is the student's responsibility to drop or officially withdraw from 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 <u>http://www.imperial.edu/studentresources</u> or click the heart icon in Canvas.

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# Anticipated Class Schedule/Calendar

WEEK	ΤΟΡΙΟ	
1	Chapter 1	
2	Chapter 2	
3	Chapter 2	
4	Chapter 3	
5	<b>Review for Test 1 and Test 1</b>	
6	Chapter 4	
7	Chapter 4	
8	Chapter 5	
9	Chapter 5	
10	<b>Review for Test 2 and Test 2</b>	
11	Chapter 6	
12	Chapter 7	
13	Chapter 8, 9	
14	Chapter 10	
15	Review for Test 4 and Test 4	
16	No Class	
17	Final Exam	

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





# Student Registration Instructions

# To register for Math 190 Pre-Calculus - Zhong Hu:

- 1. Go to https://mlm.pearson.com/enrollment/hu83743
- 2. Sign in with your Pearson student account or create your account.

For Instructors creating a Student account, do not use your instructor credentials.

- 3. Select any available access option, if asked.
  - » Enter a prepaid access code that came with your textbook or from the bookstore.
  - » Buy instant access using a credit card or PayPal.
  - » Select Get temporary access without payment.
- 4. Select Go to my course.
- 5. Select Math 190 Pre-Calculus Zhong Hu from My Courses.

If you contact Pearson Support, give them the course ID: hu83743

#### To sign in later:

- 1. Go to https://mlm.pearson.com
- 2. Sign in with the same Pearson account you used before.
- 3. Select Math 190 Pre-Calculus Zhong Hu from My Courses.