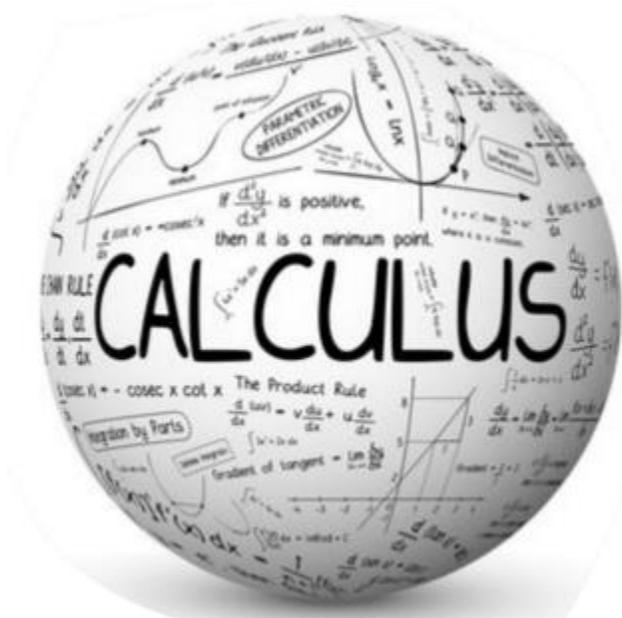


## Basic Course Information

Semester:	<b>Winter 2023</b>	Instructor Name:	<b>Jill Nelipovich</b>
Course # and Title:	<b>Pre-Calculus</b>	Email:	<b>jill.nelipovich@imperial.edu</b>
CRN #:	<b>15118</b>	Webpage (optional):	<b>Canvas</b>
Classroom:	<b>M,R,F 2722 T,W RT-OL (link in canvas)</b>	Office #:	<b>2768</b>
Class Dates:	<b>01/03/23 – 02/03/23</b>	Office Hours:	<b>By appt</b>
Class Days:	<b>M-F</b>	Office Phone #:	<b>760-355-6297</b>
Class Times:	<b>8:05 a.m. – 11:55 a.m.</b>	Emergency Contact:	<b>760-355-6201</b>
Units:	<b>5</b>	Class Format:	<b>In person M, R, F RT-OL: TW</b>

Welcome Students! The winter semester will be fun – we actually get to meet **IN PERSON!** YAY! The benefit to in person learning is **HUGE!** I want to see you succeed in this class and your next class and at the university! Your first assignment – eat healthy, take your vitamins and exercise frequently! Keep your immune system healthy and strong.



Do you remember all that trigonometry you learned not so long ago?

Well, we get to remember much of that trig – especially the identities (my favorite part)

My job: To be available for you and to help you both learn and succeed.

**What does success mean?**

- Doing well in this course AND
- Succeeding in the next course (Math 192, 194, 210, 220)

I'm not going to sugar coat it – if your success in previous math courses included alternate sources, you will have some catching up to do.

Again – we want you to succeed at the university!



## 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.)

## Textbooks & Other Resources or Links

*Pre-Calculus, 6<sup>th</sup> edition. Blitzer:* ISBN 13: [9780134469140](https://www.amazon.com/dp/9780134469140)

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

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

## Student Learning Outcomes

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 Requirements and Instructional Methods

**Projects:** There will be projects assigned throughout the semester. The projects are designed to help you think more deeply about solving math problems. You are expected to work as a group. Turn in ONE PAPER PER GROUP

**Quizzes:** The opportunity to share your knowledge of your homework will be provided on quizzes. In class, we will randomly select 2 or 3 problems. You will have at most 8 minutes to copy down the problems completely from your homework. If you do not do your homework and/or your homework is not organized and neat, you will not have time to complete the quizzes. They will come directly from the homework. I may ask you Chapter 2.3 #4 (in which case, you look in your homework for chapter 2.3 # 4 and write it down).

**Homework:** Homework is not part of your direct grade calculations. Homework should be done with the intellect of you and you classmates. It should not include any other online learning platform (unless you are verifying your work). Photomath, Chegg, and all your other platforms are not available to you on exams. They will not be available to you while you are designing the airplanes or are operating on someone. Treat college as though you are in the work force. You are the solution. There will be new problems and/or situations every day that you need to solve with your colleagues. Start the productive struggle now!

**Exams:** There are three exams in the semester where you are given the opportunity to share your knowledge and what you have learned. The exams must be done in person.

**Final Exam:** The final exam is cumulative. More details will be provided week 5.

## Course Grading Based on Course Objectives

Projects.....	5%
Quizzes.....	10%
Exams.....	60% (3 exams = 20 % each exam)
Final Exam.....	25%

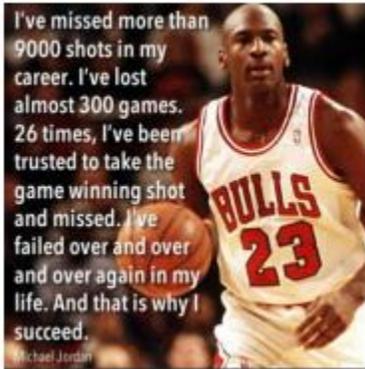
$A: 90 \leq x$ ;  $B: 80 \leq x < 90$ ;  $C: 70 \leq x < 80$ ;  $D: 60 \leq x < 70$ ;  $F: x < 60$

## Course Objectives

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 Policies

1. Have a lot of fun! Learning is no fun if you stress about learning! Always have a positive attitude. Stop, think, and relax! Allow your mind to be creative, give yourself permission to fail and embrace your success!



2. Come to class AND participate in class! It doesn't do you, your peers or myself any good if you are texting throughout class and your mind is concentrated on your weekend rather than "the now".
3. Do a little bit of work each and every day. 1% improvement each day equates to a lot of time spent learning (learning is different than studying) – it is productive studying!
4. Show up on time, prepared and ready to learn, In zoom class, I do not like talking to myself. Respond, ask questions and slow me down, if necessary. Participate in zoom class – don't just have the zoom on. Be responsible for your own learning.
5. Do your homework – and keep your homework organized and neat and legible. Bring your homework with you to class.
6. Due to state policy, we may not bring children to class.
7. Work together in study groups. It's amazing how much better students do when they collaborate.
8. Use our embedded tutor. She is there to help you. I am available most evenings, Friday, Saturday and Sunday on zoom.

## 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
1/3/23	Syllabus & Introduction, 1.1 - 1.5
1/4/23	1.6 - 1.10
1/5/23	2.1 - 2.4 (Quiz Chapter 1)
1/6/23	2.5 - 2.8
1/9/23	3.1 - 3.3; (Quiz Chapter 2)
1/10/23	3.4-3.5, 4.1
1/11/23	4.2 - 4.5 (Quiz Chapter 3)
1/12/23	Exam - Chapters 1 - 3
1/13/23	4.5 - 4.7
1/16/23	Holiday
1/17/23	5.1 - 5.3 (Quiz Chapter 4)
1/18/23	5.4-5.5, 6.1
1/19/23	6.2 - 6.5 (Quiz Chapter 5)
1/20/23	6.5 - 6.7 (Quiz Chapter 6)
1/23/23	Exam - Chapter 4 - 6
1/24/23	7.1 - 7.4
1/25/23	7.4, 7.5, 8.1, 8.2
1/26/23	8.3 - 8.5 (Quiz Chapter 7)
1/27/23	9.1 - 9.4 (Quiz chapter 8); (online: Quiz chapter 9
1/30/23	Exam: Chapters 7 - 9
1/31/23	10.1 - 10.3
2/01/23	10.4 - 10.5
2/02/23	Quiz Chapter 10, Review
2/03/23	Final Exam

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



Chapter	Recommended Homework Problems	Completed	Need help on:
1	1.1: 1 – 27 odd, 41, 43, 45, 47, 49, 55		
	1.2: 1 – 89 odd, 93, 101		
	1.3: 1 – 93 odd		
	1.4: 1 – 73 odd		
	1.5: 1 – 25 odd		