### MATH 32. Q10. 38540

### Precalculus II Winter 2025

### On Monday and Wednesday 01:30 PM-03:45 PM in MLC 108

### + Co-Requisite MATH 232 –Q10

### On Thursday 01:30 PM-03:45 PM in MLC 108

#### Instructor: Jelena Segan

E-mail: <u>seganjelena@fhda.edu</u> Office Hours: Monday, Wednesday, Thursday 12:30-01:20 PM in S 55

My office hours are time for conversation about the course and your work. I am here to answer questions, offer feedback, discuss a course concept, or just listen as you explore a line of reasoning. I can also direct you to resources to help you meet the challenges you face outside of class.

**Questions outside of office hours?** I will respond to your message or Q&A Discussion post within 24 hours, M-F.

### **Course Description**

Preparation for calculus: extending the elementary functions of first quarter precalculus to include the theory of periodic functions; composition of trigonometric functions with other elementary functions; polar coordinates; further exploration of the complex plane; introduction to the algebra of vectors. (5 units)

#### Textbook & Required Materials:

Text: Precalculus with Limits by Ron Larson

Graphing Calculator: TI-83/TI-83+/TI-84/TI-84+

**Computer/smartphone** to complete homework assignments posted on Canvas.

You should keep a **notebook** where you take notes and work on the problems for reference.

### Prerequisite:

MATH 31 or MATH 31B (with a grade of C or better); or a satisfactory score on college placement.

### Attendance:

Regular attendance and class participation are vital for success. You are expected to attend all lectures. You will be considered present if there is evidence of your participation in required course activities including, but not limited to, submitting an assignment, participating in a discussion, and working in a group. If you consistently miss lectures, you may be dropped from the course. However, it is your responsibility to drop yourself if you wish to drop the course.

### **Instructor Communication:**

I am looking forward to working closely with you this term, and you can expect me to play an active role in our course. I will hold lectures and post announcements every week, join you in class discussions to help you understand course concepts, and provide detailed feedback on assignments within one week of submission. Please let me know when you need help, that's why I'm here!

## Canvas:

Our lectures will be held in person in MLC108 on Monday and Wednesday. Exams and quizzes will also be held in person. All class content, assignments and announcements will be on Canvas, which you can access through MyPortal. The course will be divided into weekly modules in Canvas. Weeks will run from Monday to Sunday, and all work for the week (including Discussions and HW) will be due Sunday night at 11:59 pm.

### Participation in class:

A major part of the class involves participation and discussing assignments and problems with your classmates.

Thus, everyone needs to be doing the same work at approximately the same time. You are expected to meet all deadlines for homework, quizzes, and discussions. We are learning a lot of different concepts that build on one another and it is very difficult to catch up if you fall behind.

## In-Class Group Activity:

There will be required group activities during our lectures. Even though the problems will be discussed in group, write up your own solutions independently.

- Every member of the group will be taking a role.
- Groupwork is done on paper.
- Your name and your role should be written at the top of the first page.
- Work must be NEAT and ORGANIZED. Do problems IN ORDER.
- It is important for you to SHOW YOUR WORK! You are graded on the work you show to get the final answer, not just the final answer. Be sure to show your "scratch work" that goes with the problem.

### Discussions:

There will be weekly discussion topics posted on Canvas. The deadline for responding to the topic is Sunday 11:59 pm. You may not respond to the discussion once the deadline has passed.

### Homework:

Written sets for submission: During the term, I will send out homework sets to be written up and submitted on Canvas. Homework is essential in any math class. You cannot expect to pass the class without putting consistent effort into homework. The deadline for submit the homework is Sunday 11:59 pm.

## HW Guidelines:

The process of solving homework problems is reflected in step-by-step solutions. The following are some specific criteria:

Guidelines for homework:

- Your name, class, and section number should be written at the top of the first page.
- Work must be NEAT and ORGANIZED. Do problems IN ORDER.
- It is important for you to SHOW YOUR WORK! You are graded on the work you show to get the final answer, not just the final answer. Be sure to show your "scratch work" that goes with the problem.
- Do your work underneath the assigned problem then circle your final answer.
- Submit one single pdf file of your homework on Canvas or in person

### Group Quizzes:

There are 4 group quizzes throughout the quarter and each will be worth 25 points. Quizzes will focus on the material covered during that week. Students are expected to discuss the questions with their groups.

### Exam Reviews:

There will be an exam review before each midterm exam worth 10 points each. The purpose of the review is to aid the students in studying for the exams.

### Midterm Exams:

There will be **three exams** to test your understanding of the concepts from the lecture and the homework. They should be straightforward for those who complete and understand the homework. Each exam will be worth 100 points. A total of 300 points will be counted toward your final grade.

No make-up exams will be given. If you are forced to miss an exam, you need to contact me before the exam with a valid reason.

### Final Exam:

The final exam will be in person and will cover all material from throughout the term. You will have two hours to complete the final. More details on the final exam will be available on Canvas.

## Tutoring

The Math, Science, and Technology Resource Center **(S43)** provides free on campus and online services. For hours and more information, go to <u>www.deanza.edu/studentsuccess/mstrc</u>

#### **Grading Policy**

Homework	(11 @ 10 pts) 110points 13.75 %
Group Activities	(10 @5 pts) 50points 6.25%
Discussions	10 points 1.25%
Group Quizzes	(4 @ 25 pts) 100points 12.5%
Midterm Review	(3 @ 10 pts) 30points 3.75%
Midterms	(3 @ 100 pts) 300points 37.5%
Final	200 points 25%
Total	800 points

Quarter grade:				
≥100%	A+	78-79.9%	C+	
93-99.9%	Α	70-77.9%	C	
90-92.9%	<b>A</b> -	68-69.9%	D+	
88-89.9%	<b>B</b> +	63-67.9%	D	
83-87.9%	В	60-62.9%	D-	
80-82.9%	B-	0-59.9%	F	

Important Dates and Deadlines: http://www.deanza.edu/calendar/dates-and-deadlines.html

JANUARY 6 Winter classes begin

JANUARY 19 Last day to add 12-week classes

JANUARY 19 Last day to drop classes without a "W" status

JANUARY 20 Martin Luther King, Jr Day holiday – no classes; offices closed

FEBRUARY 28 Last day to drop classes with a "W" status

MARCH 24 - 28 Final Exam week

De Anza Final exams schedule: <u>https://www.deanza.edu/calendar/final-exams.html</u>

For detailed information on Homework, Quizzes, and Discussions, please log into your Canvas course page.

### Academic Integrity:

All students are expected to exercise high levels of academic integrity throughout the quarter. You are encouraged to work together but you are expected to write up your answers independently. Any instances of cheating or plagiarism will result in disciplinary action, including getting a '0' on the assignment and report to the PSME dean, which may lead to dismissal from the class or the college

### **Student Honesty Policy:**

"Students are expected to exercise academic honesty and integrity. Violations such as cheating and plagiarism will result in disciplinary action which may include recommendation for dismissal."

### **Disabled Services:**

Students who have been found to be eligible for accommodations by Disability Support Services (DSS), please follow up to ensure that your accommodations have been authorized for the current quarter. If you are not registered with DSS and need accommodations, please go to <a href="http://www.deanza.edu/dss">http://www.deanza.edu/dss</a>.

This syllabus is subject to change at the instructor's discretion. Changes will be announced in class and on Canvas.

## **Recipe for Success:**

- If you ever have any questions, Email me! You are welcome to send email to me whenever you need help!
- Visit the Online Tutoring Center.
- Form an online study group.
- Watch all lectures, participate in every discussion, and complete every homework assignment.
- Read the sections to be discussed in class prior to the lecture

Section	Course Content			
4.1	Degrees & Radians			
4.2	Unit Circle			
4.3	Right Triangle Trig			
4.4	Trig functions of any angle			
4.5	Graph of sin/cos			
4.6	Graphs of other functions			
4.7	Inverse Trig Functions			
4.8	Applications & Models			
5.1	Fundamental Identities			
5.2	Verifying Trig Identities			
5.3	Trig Equations			
5.4	Sum & Difference			
5.5	Product-to-Sum			
6.1	Law of Sines			
6.2	Law of Cosines			
6.3	2-D Vectors			
6.4	Dot Product			
6.5	Complex Number			
10.7	Polar Coordinates			
10.8	Graph of Polar Eqs.			

#### **Tentative Schedule**

WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	Sunday
1	06	07	08	09	12
	4.1		4.2		HW 4.1, 4.2 Due
2	13	14	15	16	19
	4.3		4.4/ Quiz 1		HW 4.3, 4.4 Due
3	20	21	22	23	26
	No Class		4.5/Exam 1 (Chapter 4 part 1)		HW 4.5 Due
4	27	28	29	30	2
	4.6		4.7/ Quiz 2		HW 4.6, 4.7 Due
5	3	4	5	6	9
	4.8		5.1		HW 4.8, 5.1 Due
C	10	11	12	13	16
6	5.2, 5.3		Exam 2 (Chapter 4 part 2)		HW 5.2, 5.3 Due
_	17	18	19	20	23
7	No Class		5.4, 5.5/ <mark>Quiz 3</mark>		HW 5.4, 5.5 Due
8	24	25	26	27	2
	6.1		6.2		HW 6.1, 6.2 Due
9	3	4	5	6	9
	6.3		Exam 3 (Chapter 5)		HW 6.3 Due
	10	11	12	13	16
10	6.4		6.5		HW 6.4, 6.5 Due
	17	18	19	20	23
11	10.7, 10.8/ <mark>Quiz 4</mark>		Final Review		HW 10.7, 10.8 Due

### **Final Exam Time**

#### Monday, March 24, from 1:45 PM to 3:45 PM in MLC 108

# Student Learning Outcome(s):

\* Formulate, construct, and evaluate trigonometric models to analyze periodic phenomena, identities, and geometric applications.

### Corequisite: MATH 232

#### **Course Objective:**

- **A.** Explore topics related to developing effective learning skills
- **B.** Develop effective skills for modeling and solving real world applications
- **C.** Develop skills needed for evaluating trigonometric functions using both degree and radian measure
- D. Develop skills needed for solving oblique and right triangles
- E. Develop skills needed to solve arc length and sector area problems
- F. Develop skills needed to graph and analyze the six trigonometric functions
- **G.** Develop skills needed for applying trigonometric identities to simplify and evaluate trigonometric expressions and verify other identities
- H. Develop skills needed to analyze the inverse trigonometric functions
- I. Develop skills needed to solve trigonometric equations
- J. Develop skills needed to examine complex numbers in the complex plane

### **Student Learning Outcomes**

Demonstrate sound algebraic techniques by applying proper mathematical notation to trigonometric problems.

### Format of the Class

Since most assignments are review topics, students can choose to complete them on their own time. Due dates of assignments will be set each week according to what we need for the Trigonometry class.

### Grade:

This course is a support class that is designed to help you succeed in your transfer-level math class: Math 32 (Trigonometry). This course is taken for 2.5 unit credit. Grades will be based on participation and completion of the following activities in the following areas. An overall score of 70% or higher is passing.

Your overall grade will be based on the following:

### Algebra/Review Topics (85%)

BEST PRACTICES - do as many as you can at the beginning of the term before your work ramps up in our Trigonometry class! Then you have all the successful learning strategies in your toolbox at the start of the semester! Most topics should be familiar ones that you have learned before. Those assignments will provide a reference on the skills that are essential for our Trigonometry lessons.

### Discussion (15%)

Three discussion assignments will be assigned throughout the term. The discussion assignments are meant to serve as a student-built test review for each test. More details will be given on the actual assignments.

# Student Learning Outcome(s):

• Formulate, construct, and evaluate trigonometric models to analyze periodic phenomena, identities, and geometric applications.

## **Office Hours:**

M,W,TH	12:30 PM	01:20 PM	In-Person, Email, Canvas, Zoom, By Appointment
In-Person			
M,W,TH	12:30 PM	01:20 PM	Zoom, Canvas, Email, In-Person, By Appointment
In-Person			