Math 42 Precalculus II: Trigonometric Functions
Summer 2020
De Anza College

Instructor: Doli Bambhania

Contact information: Through Canvas or e-mail (bambhaniadoli@fhda.edu);   voicemail: (408) 864-5382

Office hours: By appointment; Please reach out if I can be of help to you on a one-on-one basis.

Prerequisite: MATH 41 or MATH 41H (with a grade of C or better); or a satisfactory score on the College Level Math Placement Test within the last calendar year.

Textbook: Jay Abramson, et al, Precalculus, OpenStax. This is a free textbook and is available at https://openstax.org/details/books/precalculus.

Calculator: You will need a scientific calculator for this class. This can be a physical or an online app, such as the one at https://www.desmos.com/scientific.

Prepared Lecture Notes: The PDFs for prepared lecture notes will be shared with you. Please print these or open on a tablet if you have the ability to annotate electronically. As you watch the prerecorded video lectures, take notes on these. If you don't have access to a printer or a tablet, then simply take notes as you would in any other class. I hope that being able to pause and replay portions of the video will help you master the lecture material.

Weekly Schedule:

- **Mondays** and **Wednesdays** (and other days): Read textbook, watch lecture videos, work on homework, respond to discussion boards, and study!

- **Tuesdays** and **Thursdays**: We will have synchronous Zoom meeting. The link can be found in Canvas modules. You're expected to attend these meetings. Be sure to watch appropriate lecture videos before attending these meetings. We will use these synchronous meeting times to go over additional examples, address questions, do groupwork, and take quizzes and exams.

If, for any reason, you stop participating and intend to drop the class, please do an official drop in a timely manner. If you fail to do so, you will receive an 'F' in the class. Follow the deadlines for this class in My Portal. I do not have the ability to make exceptions to these.

Homework and in-class Groupwork: The best way to succeed in any math class is doing all of the assigned work correctly and in a timely manner, making sure you really understand what you are doing! Focus on how to think mathematically about problems, not just on following a procedure or learning a skill! Time spent on the homework and groupwork will directly benefit you on quizzes and exams.

Online Homework: You will have online homework for each section we cover. The homework will be embedded within Canvas. The links and due dates are within the modules. You will have 5 late passes that give you a 24-hour extension.

<u>In-class Groupwork</u>: For each chapter we cover in this class, you will have groupwork. These problems will be posted as a PDF in the Canvas modules. You are to work them out on paper during groupwork time in class and submit them individually by the deadline. The groupwork sets include problem solving and critical thinking exercises that rely on your conceptual understanding of the material as well as some skills. Write your solutions out in full detail, as modeled in the textbook and in lectures. There will be a strong emphasis on how the solutions are written up in this class.

> *Groupwork Submission Guidelines:*
> - *Even though the problems will be discussed in group, write up your own solutions independently.*
> - *Write your full name in the top right-hand corner of the first page.*
> - *Label each problem clearly – use highlighter to mark the number. You don't need to write the question, just fully-worked out solutions.*
> - *Do the problems in order, showing all work neatly, clearly and completely.*
> - *Submit a single PDF document, NOT multiple images. Use a scanning app such as Adobe Scan or Genius Scan (both free), or something else from among many options. Be sure to check that your scanned copy is legible. I will need to be able to read it.*
> - *Groupwork will be due the day after your second chance to work in groups on it. Groupwork will NOT be accepted late.*

<u>Participation</u>: Even though this is an online class, you are expected to participate. Here are ways to participate:
- Ask questions during the synchronous portions of our class.
- Participate actively during groupwork time during synchronous sessions.
- Participate in assigned discussion boards (it's part of your grade)
- Post and answer questions in chapter discussion boards (1 point extra credit for posting a question, 2 points extra credit for answering a question)

<u>Quizzes</u>: We will have eight 20-minute quizzes (see the last page of this document for calendar). These will be similar to your online homework. We will start them during the synchronous section of class. You will need to submit them on time to receive any points. *IMPORTANT: There will be NO MAKEUPS for any of the quizzes. However, your lowest quiz score will be dropped.*

<u>Exams</u>: We will have two midterm exams. We will also have a <u>cumulative</u> final exam that will take place on **the last day of class**. See the calendar for the dates.

Each exam will be in two parts: Part 1: Online portion similar to quizzes and homework.
                                 Part 2: Written portion similar to groupwork, where you will see a posted PDF online and will write out solutions on your own paper, scan and submit.

There will be NO MAKEUPS for any of the exams. If you miss a midterm exam, your final exam score will replace your score for that midterm. If your final exam percentage is higher than the score of your lowest midterm, the lower midterm score will be replaced. *IMPORTANT: The final exam cannot be rescheduled for any reason. In case of an unforeseen emergency or illness due to which you cannot take the final exam, you will be given an 'Incomplete' provided that you supply me with a sufficient proof.*

Evaluation: Your final grade will be computed as follows:

Homework	18 @ 5 points each	90
Groupwork	4 @ 15 points each	60
Assigned Discussions	6 @ 10 points each	60
Quizzes	Top 7 @ 20 points each	140
Exams	2 @ 75 points each	150
Final Exam		100
TOTAL		**600**

Overall percentage	Your grade will be at least
97 % or greater	A+
91% to less than 97%	A
89% to less than 91%	A-
87% to less than 89%	B+
81% to less than 87%	B
79% to less than 81%	B-
75% to less than 79%	C+
70% to less than 75%	C
55% to less than 70%	D
less than 55%	F

Help:

1. Your classmates are a great resource. Ask for help and provide help to others either within your current groups or using Canvas discussion boards!

2. Message me through Canvas with questions or to make a Zoom appointment. On online homework, you can message me by using 'Ask My Instructor' button.

3. Ask questions during our synchronous meetings on Tuesdays and Thursdays

4. Get help from De Anza's Math Student Success Center. See details at http://deanza.edu/studentsuccess/.

5. Use NetTutor for help through Canvas.

Academic Integrity: All students are expected to **exercise academic integrity** throughout the term. Any instances of cheating or plagiarism will result in disciplinary action, which may include recommendation for dismissal. You are encouraged to work together on homework but simply copying down from someone else's work is wrong! Also, that activity will be of no help to you later. Cheating on a quiz or an exam will result in getting a 0 on it, an 'F' in the course or dismissal from the class. Also, each incident of cheating will be reported to the Dean of the Physical Science, Mathematics and Engineering Division. Please see the De Anza College's page on Academic Integrity: https://www.deanza.edu/policies/academic_integrity.html.

Disability Notice: If you feel that you may need an accommodation based on the impact of a disability, please contact me privately to discuss your specific needs. Also, please contact Disability Support Programs & Services through https://www.deanza.edu/dsps/ for information or questions about eligibility, services and accommodations for physical, psychological or learning disabilities.

Miscellaneous:

In any math class, and especially this one, your goal should be to get **ownership** of the material. This means that you understand the concepts, can demonstrate the skills, and explain the concepts and skills to someone that doesn't have them. When I teach Calculus, I find that the students are the weakest in their trigonometry background. Those with weak trigonometric backgrounds (and generally, precalculus background) often don't do

well in Calculus because of lack of prerequisite skills. So, this is not a "learn and forget" class. Rather, it's a "learn well so you remember" class. Here are some tips to help you succeed.

1. While the video lectures can be watched any time, you should stick to the schedule I have recommended on the calendar. Don't fall behind! Be disciplined about this to stay on top of the class.

2. To succeed in any math class you must **do the homework diligently**. I am aware that there are many sources that can provide you the answers and even the worked solutions to homework problems; however, such resources will be only be of so much use if you don't understand what you're doing. **Productive struggle** is extremely important in learning mathematics. This means you need to sweat through the problem **on your own** first, before seeking help from your resources.

3. **Form a study group**. Exchange your contact information with at least 3 other people in the class. This will come in handy if you miss a class, or if you want to work with your classmates on homework or while studying for an exam outside of our synchronous times. **This is especially important in the summer!**

4. **Read the textbook**! Simply watching the lectures is not enough to give you a complete idea of the material. I expect you to be familiar with the examples in the textbook in addition to in-class examples. I will cover different examples in the lecture videos than those in the textbook. The reason for this is to give you a richer set of examples to learn from.

5. **Review your notes** regularly and keep them complete! Ask questions about anything that's unclear in a timely manner to avoid losing points on quizzes and exams.

6. **Ask questions**! Whether it's to your classmates, me or a tutor, get your questions answered in a timely manner.

7. Make **summary review sheets** of important concepts for yourself throughout the term to make sure you have the key concepts, facts and skills organized in your head. This will help you prepare better for exams, but more importantly, will come in handy when you truly need this material in Calculus and beyond.

8. **The summer passes by faster than expected** and it's almost impossible to catch up, so plan accordingly.

Math 42 Trigonometric Functions - Tentative Calendar - Summer 2020

	Monday	Tuesday	Wednesday	Thursday
Week 1	29-Jun 5.1	30-Jun Welcome/orientation, Group Work	1-Jul 5.2, 5.3	2-Jul Questions, Group Work 1, **Quiz 1** (on 5.1)
Week 2	6-Jul 5.4, 6.1	7-Jul Questions, Group Work 1, **Quiz 2** (on 5.2, 5.3)	8-Jul 6.1, 6.2, **Group Work 1 due**	9-Jul Questions, Group Work 2, **Quiz 3** (on 5.4, 6.1)
Week 3	13-Jul 6.3	14-Jul Questions, Group Work 2, **Quiz 4** (on 6.2)	15-Jul 7.1, Review for Ex 1 **Group Work 2 due**	16-Jul Questions/review, **Exam 1** (on Ch 5, 6)
Week 4	20-Jul 7.2, 7.3	21-Jul Questions, Group Work 3, **Quiz 5** (on 7.1)	22-Jul 7.5, 7.6	23-Jul Questions, Group Work 3, **Quiz 6** (on 7.2, 7.3)
Week 5	27-Jul 8.1, 8.2 **Group Work 3 due**	28-Jul Questions, Group Work 4, **Quiz 7** (on 7.5)	29-Jul 8.3, 8.4, Review for Ex2	30-Jul Questions/review, **Exam 2** (on Ch 7, 8.1, 8.2)
Week 6	3-Aug 8.5, 8.8	4-Aug Questions, Group Work 4, **Quiz 8** (on 8.3, 8.4)	5-Aug Review for Final Exam **Group Work 4 due**	6-Aug **Final Exam**

Other Important Dates from MyPortal

Last Day for Adds	9-Jul-20
Census Date	16-Jul-20
Last Day for Drops w/ Refund	7-Jul-20
Last Day for Drops w/o W	14-Jul-20
Last Day for Drops	7-Aug-20

Student Learning Outcome(s):

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