Math 42 Precalculus II: Trigonometric Functions

Summer 2018
De Anza College

Instructor: Doli Bambhania

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Office: S43a **Office hours**: By appointment only

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

Textbook: Larson, Ron. Precalculus with Limits. 3rd Edition. Brooks/Cole. 2014.

Calculator: You will need a scientific calculator for this class. A graphing calculator, such as TI-83, may be used as well. A graphing calculator that does symbolic manipulation, such as TI-89 or TI-92, will NOT be allowed on quizzes and exams. Likewise, you may NOT use a calculator app on your phone during quizzes and exams.

Attendance: In any math class, attendance is extremely important! This is especially true during summer session when there is almost no time to catch up! You are expected to come to all of the class meetings on time and prepared. If you miss a class, you will need to catch up BEFORE you return to the next class, and keep up with the homework.

If you stop attending, it is YOUR responsibility to drop yourself from the course. If you fail to do so, you will receive an 'F' in the course.

Homework: The best way to succeed in any math class is doing all of the assigned homework correctly and in a timely manner, making sure you really understand what you are doing! This is especially important in this class because each problem tries to teach you to think, not just follow a procedure or learn a skill! Time spent on the homework will directly benefit you on quizzes and exams.

Your homework consists of problems from the textbook (see page 4 of this document). The homework sets will be due Tuesdays and Thursdays. The sections due include up to what has been completed in class since the last homework submission.

The homework sets include problem solving and critical thinking exercises that rely on your conceptual understanding of the material as well as some know-how of skills. Write your solutions out in full detail, as modeled in the textbook and in class. There will be a strong emphasis on how the solutions are written up in this class. The homework will be graded for completeness.

HW Guidelines:

- *Write your full name in the top right hand corner of the first page*
- *Label each problem clearly – use highlighter to mark the number*
- *Do the problems in order, showing all work neatly, clearly and completely*
- *STAPLE your homework. No "dog ears" or paperclips!*

Late homework will not be accepted. If you cannot be in class on a day that homework is due, send the homework in with a classmate or email it to me before your class starts. If there's a problem or an unusual situation out of your control, let me know.

I will answer any homework questions with enough demand at the beginning of every class. Please put the problems up on the board before class. If a problem you need help on is already on the board, put a check mark next to it. You may also email me homework questions.

Entrance Cards: We will have several unannounced in-class entrance cards with problems similar to what has recently been done in class (that day or previous day) or on the homework to encourage you to come to class on time, stay for the duration, engage yourself enough to understand the material, and practice regularly. These will be given at the start of class or after the break. *IMPORTANT: Please keep several neatly cut half sheets ready in your binder.*

Participation: I will randomly call on students during class with "bite-sized" questions on a regular basis. You are expected to participate. You are also strongly encouraged to ask questions during class. This is to encourage you to do your best to learn the most that you can during class. The summer session moves very fast! There's no time to "catch up".

Quizzes: We will have several regular in-class quizzes (see the calendar on page 3). *IMPORTANT: There will be NO MAKEUPS for any of the quizzes. However, your lowest quiz score will be dropped.*

Exams: We will have 3 midterm exams. The dates are on our calendar. You will also have a cumulative final exam, which will take place on **the last day of class** in our classroom. 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	20 @ 5 points each	100
Quizzes	Top 6 @ 15 points each	90
Entrance	Top 5 @ 4 points each	20
Exams	3 @ 100 points each	300
Final Exam		140
TOTAL		**650**

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

Help:

1. Your classmates are a great resource. Ask for help and provide help to others!

2. I strongly encourage you to attend the **group tutoring session in S43** (details will be announced in class and shared over email).

3. Use the Drop-In tutoring services at S43 if you cannot make it to the group tutoring or for additional help.

4. I am also available to help you throughout the term. Email me with questions, or to see me, make an appointment.

Academic Integrity: All students are expected to **exercise academic integrity** throughout the quarter. 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 answers from another student's homework is wrong! Plus, that activity will be of no help to you on the quizzes and exams. 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.

Disability Notice: If you feel that you may need an accommodation based on the impact of a disability, you should contact me privately to discuss your specific needs. Also, please contact Disability Support Services (864-8753) or Educational Diagnostic Center (864-8839) for information or questions about eligibility, services and accommodations for physical (DSS), psychological (DSS) or learning (EDC) 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. 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.

2. **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. **This is very important in the summer!**

3. **Read the textbook**! Attending 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. They may show up on quizzes and exams even if they don't in lecture.

4. **Review your notes** after class to make a note about a question or comment that you may have had about something in lecture, and also before class, to ask any timely questions in class.

5. Make a point of taking care of any class-related issues in a **timely manner**. The summer passes by faster than expected and it's almost impossible to catch up.

6. Finally, **ask questions** – lots of questions. I will try my best to make sure you're following me during class, but I can't read your mind. Asking questions during class is especially important to make sure that you don't get stuck on a point while the rest of the class moves on. Also, few other students in the class will have the same question as you, so you'll be helping others by asking your question.

7. Make **summary review sheets** of important concepts for yourself throughout the session to make sure you have the key concepts, facts and skills organized in your head. This will come in handy for exams, especially the final exam.

Math 42 Precalculus II - Tentative Calendar - Summer 2018

Textbook: Larson, Ron. Precalculus with Limits. 3rd Edition. Brooks/Cole. 2014.

	Monday	Tuesday	Wednesday	Thursday
Week 1	2-Jul Syllabus, 4.1	3-Jul Introductions, 4.2	4-Jul HOLIDAY	5-Jul **Quiz 1**, 4.3
Week 2	9-Jul 4.4	10-Jul **Quiz 2**, 4.5	11-Jul 4.6, Review	12-Jul **Exam 1 (4.1-4.5)**, 4.6
Week 3	16-Jul 4.7	17-Jul **Quiz 3**, 4.8	18-Jul 5.1, 5.2	19-Jul **Quiz 4**, 5.2, 5.3
Week 4	23-Jul 5.3, Review	24-Jul **Exam 2 (4.6-5.2)**, 5.4	25-Jul 5.4, 5.5	26-Jul **Quiz 5**, 5.5, 6.1
Week 5	30-Jul 6.1, 6.2	31-Jul Quiz 6, 6.3, 6.4	1-Aug 6.4, Review	2-Aug **Exam 3 (5.3-6.3)**, 6.5
Week 6	6-Aug 10.7	7-Aug **Quiz 7**, 10.8	8-Aug Review	9-Aug **Final Exam**

Other Important Dates

Please check MyPortal for important Admissions and Records deadlines for things like add, drop, withdraw, grade option, etc.

Math 42: Precalculus II Homework Problems Summer 2018

Section	Problems
4.1	1 - 6, 12, 14, 16, 26, 28, 30, 36 - 68 (even)
4.2	1 - 4, 6 - 16 (even), 24 - 50 (even)
4.3	1 - 4, 6 - 72 (even), 79 - 84
4.4	1 - 8, 10 - 100 (even)
4.5*	1 - 4, 6 - 66 (even), 74 - 94 (even)
4.6*	1 - 8, 9 - 14, 20 - 34 (even), 50, 54, 58 - 64 (even), 65 - 68, 78 - 84 (even)
4.7	1 - 4, 5 - 18, 22 - 32 (even), 39, 42 - 88 (even), 99, 102, 104, 106, 108
4.8	1 - 4, 6, 8, 10, 16, 20 - 26 (even), 30 - 58 (even)
5.1	1 - 6, 8 - 50 (even), 54, 56, 62, 64
5.2	1 - 8, 10 - 46 (even), 60, 62
5.3	1 - 4, 6, 10, 12 - 54 (even), 62, 64, 68, 86, 88, 92, 94
5.4	1 - 6, 8, 38 (even), 42, 48, 54, 58, 62, 66, 70
5.5	1 - 6, 8 - 24 (even), 32, 38, 40, 46, 50, 58, 77 - 79
6.1	1 - 4, 10 - 20 (even), 26, 28, 36, 40, 42, 48, 50, 52, 54, 56
6.2	1 - 4, 14 - 20 (even), 26, 32 - 40 (even), 48, 50, 58, 61, 62
6.3	1 - 10, 12 - 80 (even), 84, 88, 94
6.4	1 - 6, 8 - 70 (even), 78, 80, 82
6.5	1 - 4, 6 - 22 (even), 32, 38, 46, 52, 58, 62, 66, 70, 82, 84, 98
10.7	1 - 4, 6 - 34 (even), 44 - 60 (even), 72 - 82 (even), 112
10.8	1 - 6, 7 - 12, 14 - 42 (even), 71, 72

* Use GRAPH PAPER for sections 4.5 and 4.6 homework

Student Learning Outcome(s):

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