

MATH 104 Precalculus

Section #45232 TTh 11:00—1:25 SCOH-204

Spring 2020

Instructor:

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Office Hours:

MW 12:00-2:00
(or by appointment)
BONH-321

Textbook: The textbook for this course is an open educational resource (OER) available from OpenStaxCollege.org. Please follow the link below to download a free PDF copy or to purchase a hard copy of the book. Hard copies can also be purchased at the COC bookstore.

<https://openstax.org/details/precalculus>

Grade: Your Semester grade will be determined by your overall percentage in the course:

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

Your course grade will be calculated using the following:

Groupwork (10%): Most days in class you will be assigned to work with a group with 2 or 3 other students. Problems will be assigned for your group to work on. Each group will submit one set of solutions for each assignment.

Homework Quizzes (10%): Homework will be assigned at each class meeting. There will be approximately 8 open-note quizzes during the semester. (Notes are defined to be handwritten class notes and homework. Nothing printed or photocopied will be allowed on quizzes.) The quiz problems will be taken from the homework assignments.

Tests (60%): There will be 5 tests. Your best 4 test scores will be counted for your semester grade. There will be no make-up tests (any missed test will count as a zero). Neither books nor notes will be allowed on tests. Calculators will not be used on tests.

Final Exam (20%): The final exam for this course will be on the last day.

Course Policies: Please don't be late for class. There should be no talking during the lecture. Neither food nor drink is allowed in the classroom. Please silence any phones or other devices. No recording or photos allowed without instructor's permission. Any instance of cheating will be dealt with in accordance with College policies. Although excessive absences (3 or more) may result in being dropped from the class, it is a student's responsibility to drop any class officially through Admissions and Records. Check the Schedule of Classes for the drop dates.

Do you know the difference between the A.S. and the A.S.T. degrees? Check the site <http://www.canyons.edu/Offices/MathScienceDiv/Pages/Degrees.aspx> for more information, especially if you are interested in transferring to a 4-year university.

Strategies for success: Time spent on this course should be divided into 3 roughly equal parts: attending class, studying the text and your notes, and doing homework problems. So for each hour in class, you should plan to spend at least 2 additional hours studying and working on problems. Concentrate in class—take notes, participate, and ask questions. Keep up with the class—if you ever fall behind, it will be very hard to catch up. (If you ever find yourself “cramming” before a test it means you weren’t keeping up with the class!) Study the examples in the text with a pencil in your hand. Study each section before it is covered in class. Avoid over-use of the solutions manual. Make sure that you understand the definitions and theorems; it’s not enough to just do the problems. The lectures are intended to complement the text—there may be material in the lectures which is not in the text and vice-versa. Have graph paper available at all times. (It is suggested that you do all work on graph paper). Your success in this course will be largely determined by your mastery of the homework problems. Make use of the instructor’s office hours and the TLC lab whenever you need help.

Student Learning Outcomes:

1. Analyze and graph polynomial, rational, logarithmic, exponential and trigonometric functions.
2. Recognize, analyze and solve problems involving functions.

Guidelines for Groupwork

Working together in a group can be a very effective way to learn mathematics. We can often learn best by asking questions, explaining ideas and discussing solutions with other students. Working in a group also helps to develop communication skills—there is little point in learning mathematics if one cannot effectively use mathematical language to communicate with others.

1. On most class days you will be assigned to a group of 2, 3 or 4 students .

2. A set of classwork problems will be assigned for your group to work on.

3. Your group will submit one complete solution (showing all work) for the set of problems or show all the work on the board to receive credit for that day’s classwork assignment. The names of all group members must be written on the paper in order to receive credit.

4. If you feel that the group’s solution to any problem is incorrect, and you are unable to convince the other group members that your solution is the correct one, you may submit a dissenting solution.

5. If, for any reason, you do not feel comfortable working with the group you are assigned to, immediately ask the instructor to re-assign you to another group.

<u>Section</u>	<u>Page</u>	<u>Problems</u>
1.1	18	1 – 5 all, 7, 9 – 73 EOO, 89, 91
1.2	35	1 – 5 all, 9 – 53 EOO, 60, 61
1.3	48	1 – 4 all, 5 – 25 odd, 29 – 33 odd, 44, 46
1.4	60	1 – 4 all, 5 – 97 EOO
1.5	85	1 – 5 all, 7 – 29 odd, 33 – 81 EOO
1.6	98	1 – 9 all, 13 – 49 EOO, 61, 63
1.7	110	1 – 12 all, 13 – 23 odd, 24 – 32 all, 33 – 47 odd
2.1	139	1 – 6 all, 7, 9 – 53 EOO, 69 – 75 odd
2.2	159	1 – 5 all, 7 – 27 odd, 29 – 65 EOO, 74 – 76 all
3.1	206	1 – 4 all, 5 – 41 EOO, 42, 43
3.2	221	1 – 5 all, 7, 9 – 61 EOO, 85 – 91 odd
3.4	254	1 – 5 all, 9 – 41 EOO, 42 – 47 all, 49 – 65 EOO, 75, 79
3.5	264	1, 2, 5 – 53 EOO, 65, 67
3.6	276	1 – 5 all, 9 – 45 EOO, 71, 75
3.7	295	1 – 9 all, 13 – 49 EOO, 70 – 74 all, 75 – 81 odd, 84, 85
4.1	340	1 – 13 all, 29 – 37 odd, 42, 43, 61, 65, 67
4.2	352	1 – 25 EOO, 26 – 28 all, 29 – 41 EOO
4.3	361	1 – 5 all, 7, 9 – 57 EOO, 66
4.4	377	1 – 5 all, 9 – 25 EOO, 26 – 34 all, 37 – 49 EOO
4.5	389	1, 2, 5 – 37 EOO
4.6	399	1 – 3 all, 5, 7, 10, 13 – 19 odd, 20, 21, 25 – 30 all, 31 – 49 odd, 65, 67, 79
4.7	413	23, 25, 28 – 39 all
Ch. 5	502	1 – 4 all, 7 – 14 all, 17, 18, 19, 22 – 31 all, 43 – 48 all
6.1	520	1 – 5 all, 7 – 29 odd
6.2	538	1 – 9 all, 19 – 35 odd, 39 – 45 odd
6.3	550	1 – 7 all, 9 – 33 EOO, 35, 37 – 41 all, 53, 54, 56
7.5	614	1 – 3 all, 5 – 65 EOO, 83, 85
8.3	679	1 – 5 all, 7 – 15 odd, 17 – 65 EOO, 79 – 84 all
8.4	695	1 – 5 all, 17 – 41 EOO
8.6	717	7 – 25 odd, 31 – 37 odd
8.7	726	7 – 17 odd, 23 – 31 odd, 32
9.2	781	1 – 10 all, 13 – 45 EOO, 51, 57, 59
9.3	793	1 – 5 all, 7, 9 – 45 EOO, 55, 57
9.4	803	1 – 5 all, 9 – 53 EOO
9.5	814	1 – 5 all, 7 – 33 odd, 35
9.6	826	1 – 15 all, 17 – 37 EOO, 53, 60
9.7	840	1 – 5 all, 7 – 21 odd, 27 – 35 odd, 59
9.8	851	1 – 4 all, 5 – 19 odd, 25 – 35 odd
10.1	877	1 – 10 all, 13 – 53 EOO, 55, 65, 67
10.2	893	1 – 10 all, 13 – 53 EOO, 55, 67, 69
10.3	906	1 – 10 all, 13 – 53 EOO, 55, 61, 63, 67
11.1	948	1 – 5 all, 7, 9 – 45 EOO, 52 – 54 all
11.2	958	1 – 5 all, 7 – 27 odd, 29 – 53 EOO, 55 – 57 all
11.3	967	1 – 5 all, 7 – 23 odd, 25 – 45 EOO, 46, 47
11.4	979	1 – 4 all, 7 – 25 odd, 31 – 45 odd, 54, 60
11.6	997	1 – 4 all, 5 – 37 EOO

Induction Packet: 1 – 8 all

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Week	Tuesday	Thursday
2/11	1.1 - 1.2	1.3 - 1.4
2/18	1.5 - 1.6	1.7
2/25	2.1 - 2.2	3.1 - 3.2
3/3	Test #1	3.4 - 3.5
3/10	3.6 - 3.7	4.1 - 4.3
3/17	4.4 - 4.5	4.6 - 4.7
3/24	Chapter 5	Test #2
3/31	6.1 - 6.2	6.3, 7.5
Spring Break		
4/14	8.3 - 8.4	8.6 - 8.7
4/21	9.2 - 9.3	Test #3
4/28	9.4 - 9.5	9.6
5/5	9.7 - 9.8	10.1, 10.2, 10.3
5/12	11.1 - 11.2	Test #4
5/19	11.3 - 11.4	11.5 - 11.6
5/26	Induction	Test #5
6/2	Review	Final Exam