
Math 150 Trigonometry Syllabus

Mount San Antonio College

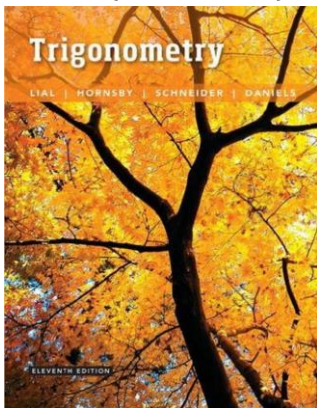
Spring 2017

CRN 41519

TuTh 7:00-8:25pm

Bldg. 61–Room 2319

Text: Trigonometry by Lial, Hornsby, Schneider, Daniels (11th edition)



Available in the Mt. Sac Bookstore or at the MARC to borrow.

Prerequisite: Math 71 and 71B or a qualifying score on the current department placement test AND Math 61 or passing score on current geometry competency test.

Course Description: Trigonometry functions and inverse trigonometric functions and the graphical representations of these functions; solutions to right and oblique triangles with laws of sines and cosines; vectors; solutions to trigonometric equations; identities; polar coordinates; complex numbers and DeMoivre's Theorem.

Instructor

Lisa Morales

About me

This is my first year at Mt. Sac as a full-time faculty member. I taught here part-time for two semesters while also a full-time teacher at Bishop Amat High School in La Puente. I was there for five years teaching mostly AP Calculus. I received my Bachelor of Science in Math from Cal Poly Pomona and my Master of Science in Math from UC Riverside. I am also just three classes away from earning my Masters in Education from Mount St. Mary's University.

I have been married for seven years to my husband Chris (we were high school sweethearts) and have a mini Boxer dog named Pi (yes, like the mathematical symbol π).


How to Contact me

Email: lmorales73@mtsac.edu
Extension: 5782
Office: 61-1608
Office Hours: Mon/Wed 9:30am-10:30am
Tues/Thurs 3:15pm-4:15pm
and by appointment

[Course Website: lmoralesmath.com](http://lmoralesmath.com)

What will you find there:

- ❖ Syllabus
- ❖ Course schedule
- ❖ Blank and filled out copies of notes
- ❖ Assignments with due dates
- ❖ Quiz solutions
- ❖ Exam reviews and solutions
- ❖ Class reminders and any changes in schedule
- ❖ Additional study resources

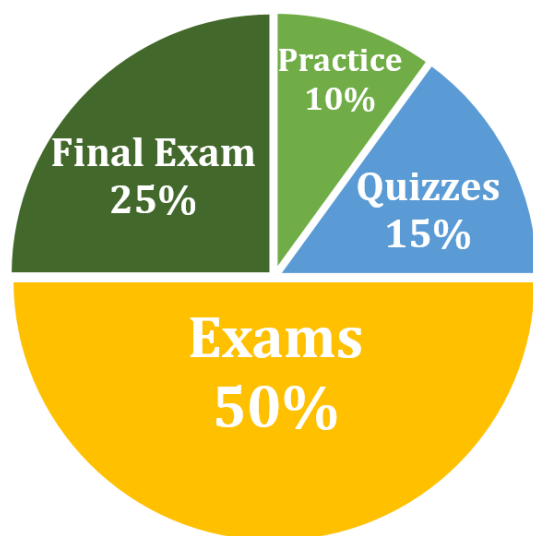


If you have a phone, go there now and save this website!

Grading

Grading: The class will be out of 600 points. Your grade will be calculated based on points earned.

10%	Practice	6 assignments at 10 points each	60 points	<u>Final grade in the course:</u> A 90-100% 540-600 points B 80-89% 480-539 points C 70-79% 420-479 point D 60-69% 360-419 points F 0-68% 0-359 points
15%	Quizzes	10 quizzes at 9 points each	90 points	
50%	Exams	3 exams at 100 points each	300 points	
25%	Final Exam	Cumulative 150 point exam	150 points	



Attendance: Be here **on time** and stay for the entire class. Attendance may be taken through quizzes and/or roll call.

A student may be dropped from the class by the instructor if they:

- Missed the first or second day of class
- Missed 3 or more classes
- Miss an exam without prior direct communication with the instructor

Students who miss exactly 0, 1, or 2 classes during the term will earn 5 points extra credit.

Practice: Math is not a spectator sport. You **MUST** practice, practice, practice! We will do some practice problems during class but you must practice in between classes too. An assignment sheet is provided and also posted on the website. Assignments are out of 6 points will include problems from the textbook and may include additional worksheets. Assignments must be **COMPLETE** when turned in. Do not turn in incomplete assignments. All assignments must be turned in on or before the start of class the day they are due. If you will be absent, you can scan and submit your work digitally or drop it off in the box outside my office. One assignment may be turned in late for full credit if it's within one week of the original due date. Other ate assignments may be turned in by the next exam for up to 4 points provided they are complete. Late assignments turned in by the day of the final can receive up to 2 points provided they are complete.

Quizzes: You will take at least 12 *short* two or three question 10 minute quizzes almost every class either before the break or at the end of class. Your best 10 quizzes will count towards your final grade. **If you are absent, there are no make-ups for quizzes.** This means if you are absent for up to two quizzes, those will not count towards your grade. Anything past two missed quizzes will remain zeroes. Quizzes are intended to be quick and easy-medium in difficult with no word problems.

Exams: There will be three “midterm” exams worth a total of 50% of the total grade. Students will be required to show their Mt. SAC student ID card in order to submit the first exam. Students who arrive late will not be granted extra time to complete the exam. There will be no make-up exams. In an extreme circumstance, please contact me personally. Exams are medium-hard in difficulty and WILL have word problems. Reviews for the exam will be given but are not the only thing you should study in preparation for the exam.

Final: The final exam is comprehensive and will be based on all of the notes, practice, quizzes, and past exam problems from the course. The final exam is 25% of the final grade and will be on **Tuesday June 13 7:30-10:00pm**. Since the final is cumulative, your lowest exam percentage will be replaced with your final exam percentage provided your final exam AND your homework average is passing (70% or higher) provided the replacement benefits your overall grade. (Ex. Your lowest exam is 50%. You earn 85% on the final and your homework average is 90%. Your lowest exam is changed to 85%.) Keep in mind, the final is LONG and CHALLENGING due to it covering all the course content.

Extra Credit: My advice is to worry about earning as much “regular” credit as possible. There will be a few chances to earn extra points but these may not exceed more than 3% or 18 total points.

Expectations and Accommodations

Expectations: To be successful in this course, you must,

- ❖ PUT IN THE WORK. Spend at least one to two hours of your own time studying for this class and doing practice problems for each hour of in class time.
- ❖ USE YOUR RESOURCES. This includes reading the textbook, reviewing/copying your notes, and using online resources, when needed.
- ❖ ASK FOR HELP. This can be from the MARC/TMARC or come to office hours as soon as you don't understand a concept, not right before an exam or quiz. Be prepared with specific questions when you come to ask for help.

Accommodations: My goal is to promote student success. If you have a specific need that I can address to assist you to be successful in my class, I encourage you to discuss it with me in private so that we can strategize together on ways to help you. If you are registered with DSPS with a disability or medical condition, please talk with me as soon as possible so we can address your accommodations together. If you will use your accommodation for a quiz or exam, it is your responsibility as the student to inform me at least a week before each quiz or exam. If you haven't registered with DSPS, I encourage you to visit their office to learn about services they offer. DSPS is located in Student Services Building, lower level, across from Admissions & Records, (909) 274-4290.

Tutoring Resources: MARC Math Activities Resource Center (61-1st floor)

<http://marc.mtsac.edu>

It's available Mon-Fri and it's free!

Classroom Policies

Cell Phone/Electronics Policy

A student being *present* in class means actively participating without the distraction of technology. Unless we are on a break, I should not see, hear, or be aware of the existence of any technology besides a scientific calculator. I reserve the right to dismiss you from class if you are distracting in any way to myself or your peers. This includes exam days. Please respect both the instructor and your classmates by keeping your phone either OFF or on SILENT (not even vibrate). As necessary you may step outside to check messages or make phone calls during a non-exam day.

Environment

To ensure the learning environment is encouraging to all, you are asked to maintain respect for all those present in class. Students who do not observe these rules of common courtesy may be dismissed.

Please create a positive environment by	Do NOT create a negative environment by
<ul style="list-style-type: none">❖ taking notes and paying attention❖ nodding along if you understand❖ asking questions if you don't understand❖ allowing classmates to ask questions without judgment.❖ working on practice problems when instructed to do so❖ being alert and engaged	<ul style="list-style-type: none">❖ mocking or harassing a classmate over an honest question❖ sleeping in class❖ working on homework for this class or any other class❖ reading anything not directly related to the material that is being presented,❖ violating the electronic device policy

Exam Day Policies

To ensure that exams are taken in a fair and honest environment:

- ❖ Students are not allowed to leave the classroom until they have completed their exam.
- ❖ Once a student submits an exam, that student is required to leave the classroom and cannot change any answers on their exam.
- ❖ **You will be able to use a scientific calculator for some exams** (graphing calculator not allowed) and you cannot share calculators during an exam or quiz.
- ❖ A random seating chart on days of exams may be used.
- ❖ The following are **not** acceptable for use/wear during an exam: notes, cheat sheets, the textbook, cell phones, electronic dictionaries/translators, MP3 players, headphones, laptop computers, tablets, smartwatches, or anything else that the instructor determines as unacceptable.
- ❖ If a cell phone is visible (even if off) during a quiz or exam, it will result in a zero.

Academic Dishonesty

My thoughts on cheating. It's wrong. Don't do it. I will follow the policy as outlined in the school catalog (see <http://www.mtsac.edu/catalog/>), and will report any violations of academic dishonesty to the Office of Student Life. Also, you'll receive a zero score on the assignment/quiz/exam. Students are expected to complete quizzes and exams without notes or assistance from others except with the approval of the instructor. **Rule of thumb? If it feels wrong, don't do it.**

Course Information

Student Learning Outcomes: The Student Learning Outcomes (SLOs) for Math 150 (Trigonometry) are the following:

1. Without the use of a calculator, students will be able to graph the six trigonometric functions in a precise manner, stating the period, amplitude, phase shift, and translation as appropriate.
2. The student will be able to accurately solve trigonometric equations over a given interval, including equations that use multiple angles, identities, and quadratic forms.

Course Measurable Objectives: The measurable objectives for Math 150 (Trigonometry) are the following:

1. Evaluate trigonometric functions of angles measured in degrees and radians.
2. Solve right and oblique triangles.
3. Apply inverse trigonometric functions.
4. Graph trigonometric and inverse trigonometric functions.
5. Solve trigonometric equations.
6. Prove and use trigonometric identities.
7. Apply DeMoivre's Theorem to powers and roots of complex numbers.
8. Apply the principles of trigonometry to problem solving.
9. Solve problems using vectors and vector operations

Final Reminders

- ✓ Work hard. Put in the time, use your resources, and you will be successful.
- ✓ Ask for help. If you don't understand something, speak up or come to office hours.
- ✓ Stay organized. Keep a binder with all materials for reference and for your records.
- ✓ Respect everyone. Stay quiet and attentive when the instructor or your classmates are talking.
- ✓ Be present. This means in class (physically here) and ready to learn (no electronic distractions).
- ✓ Come prepared to class. Bring needed supplies pencils, erasers, notebook/paper, calculator, book, etc.
- ✓ Show up on time. It's distracting for everyone when people are late.
- ✓ Break is the time to eat meals. Eating a piece of candy or drinking water or coffee during class is fine.
- ✓ Have fun! Math may not be your favorite subject but bring a positive attitude and we'll work together.

Lastly, unless space is limited, no sitting in the back row/rows. Fill up the front of the class first!

Classmate Info

Name: _____

Phone Number: _____

Email: _____

Classmate Info

Name: _____

Phone Number: _____

Email: _____

Math 150 Course Schedule*

Week		Tuesday		Thursday
1	2/28	<i>Syllabus</i> 1.1 1.3	3/2	1.3 1.4
2	3/7	2.1 2.2	3/9	2.2 2.3
3	3/14	2.4 2.5	3/16	2.5 3.1
4	3/21	3.2 3.3	3/23	3.3 3.4
5	3/28	4.1 4.2	3/30	Exam 1
6	4/4	4.2 4.3	4/6	4.4 5.1
7	4/11	5.2	4/13	5.3 5.4
8	4/18	5.4 5.5	4/20	5.6 6.1
9	4/25	6.1 6.2	4/27	6.2 6.3
10	5/2	7.1 7.2	5/4	Exam 2
11	5/9	7.2 7.3	5/11	7.4 7.5
12	5/16	7.5 8.1	5/18	8.1 8.2
13	5/23	8.3 8.4	5/25	8.4 8.5
14	5/30	8.6	6/1	Exam 3
15	6/6	Review for Final	6/8	Review for Final
16	6/12	FINAL 7:30-10:00pm		

*The exam dates above will not change. The text sections are subject to change. Changes, if necessary, to the syllabus or schedule will be announced in class and will be posted on the course website.

Deadline to Drop with a Refund

March 10, 2017

Deadline to Drop without a "W":

March 12, 2017

Deadline to Drop with a "W":

May 4, 2017

Math 150 Assignments

For each chapter, there is an required assignment and recommended problems. Each required assignment is due on or before the assigned date. You are strongly encouraged to do the recommended problems but do not turn them in.

You will earn 10 points (full credit) provided:

- ❖ All 24 problems are done with work shown for each
- ❖ All problems are written out including drawing given graphs and word problems.
- ❖ The assignment template is followed.

Do NOT turn in incomplete assignments. A column of just answers with no work will receive no credit.

Late Work: One assignment can be turned in up to one week late for full credit. Any further late work will get a point deduction. If turned in complete by the next exam, you will earn 7 points. If turned in complete by the final exam, you will earn 4 points.

Assignment 1 Due Thurs 3/16	
<i>Required</i>	<i>Recommended</i>
1.1 p. 7 #15, 25, 29, 39, 55, 65, 77, 81, 91, 103, 111, 123, 127	1.1 p. 7 #1-10, 27, 31, 41, 53, 67, 87, 89, 117, 125
1.3 p. 27 #11, 21, 25, 51, 57, 63, 65, 69, 73, 85, 89	1.3 p. 27 #1-6, 15, 23, 55, 67, 87, 91
1.4 p. 37 #11, 15, 19, 29, 33, 41, 43, 53, 59, 63, 65, 69, 73, 83	1.4 p. 37 #1-10, 13, 17, 25, 37, 45, 55, 67, 77
2.1 p. 53 #7, 15, 21, 23, 31, 41, 43, 51, 53, 55, 59, 61, 73	2.1 p. 53 #1-5, 11, 17, 25, 27, 49, 57, 63, 75
2.2 p. 61 #19, 29, 39, 45, 49, 53, 55, 61, 63, 67	2.2 p. 61 #1-18, 21, 31, 41, 47, 51, 65, 71
2.3 p. 66 #23, 25, 27, 29, 31, 37, 45, 51, 53, 69, 73	2.3 p. 66 #1-9, 33, 35, 47, 61, 71

Assignment 2 Due Thurs 3/30	
<i>Required</i>	<i>Recommended</i>
2.4 p. 77 #15, 19, 27, 31, 45, 47, 53, 55	2.4 p. 77 #1-6, 17, 29, 33
2.5 p. 86 #19, 21, 29	2.5 p. 86 #1-10, 35
3.1 p. 104 #11, 17, 19, 21, 29, 35, 43, 45, 55, 59, 67, 69, 71, 79, 81	3.1 p. 104 #13, 21, 31, 3, 57, 87
3.2 p. 109 #1-19 odd, 39, 47, 51	3.2 p. 109 #2-20 even
3.3 p. 123 #9, 15, 17, 19, 21, 23, 27, 31, 33, 37, 41, 67, 69, 73	3.3 p.123 #1-7, 25, 29, 71
3.4 p. 131 #7, 11, 17, 21, 23, 27, 29, 43, 45	3.4 p. 131 #1-6

Assignment 3 Due Thurs 4/13	
<i>Required</i>	<i>Recommended</i>
4.1 p. 149 #13, 19, 23, 29, 31, 37, (41, 45 sketch graphs	4.1 p. 149 #1-12
4.2 p. 159 #17, 29, 33, 35, 37, 45, 53, 57	4.2 p. 159 #1-16, 19-22
4.3 p. 171 #13, 15, 19, 23, 29, 33, 39	4.3 p. 171 #1-12
4.4 p. 179 #11, 15, 17, 19	4.4 p. 179 #1-10
S Summary p. 181 #1-6	

Assignment 4 Due Thurs 4/27	
<i>Required</i>	<i>Recommended</i>
5.1 p. 200 #7, 11, 17, 31, 33, 35, 44, 53, 55, 59, 65, 69, 77	5.1 p. 200 #1-5, 39-43
5.2 p. 208 #11, 15, 21, 23, 27, 29, 37, 41, 45, 47, 53, 61, 65, 71, 73, 81	5.2 p. 208 #1-10
5.3 p.218 #9, 13, 17, 43, 47, 51, 53, 57, 59, 61, 67, 69	5.3 p.218 #1-10
5.4 p.226 #9, 13, 15, 27, 29, 33, 41, 53, 61	5.4 p. 226 #1-8
5.5 p.236 #7, 9, 11, 13, 17, 37, 47, 57, 61	5.5 p. 236 #1-6
5.6 p. 241 #11, 15, 19, 27	5.6 p. 241 #5-10

Assignment 5 Due Thurs 5/4	
<i>Required</i>	<i>Recommended</i>
6.1 p. 264 #13-25 odd, 37-41 odd, 49-55 odd, 75-83 odd, 87, 91	6.1 p. 264 #1-12
6.2 p. 273 #15-45 odd	6.2 p. 273 #1-12
6.3 p. 279 #13, 15, 17-33 odd	

Assignment 6 Due Thurs 5/18	
<i>Required</i>	<i>Recommended</i>
7.1 p. 301 #13, 15, 17, 23, 35, 37, 39, 47, 51, 55	7.1 p. 301 #1-10
7.2 p. 310 #11,13, 17, 19, 21, 27	7.2 p. 310 #2, 33
7.3 p. 319 #11, 13, 19, 21, 25, 35, 51	7.3 p. 319 #1-8
7.4 p. 332 #19, 23, 27, 29, 31, 37, 39	7.4 p. 332 # 1-16
7.5 p. 342 #9-67 odds	7.5 p. 342 #1-8

Assignment 7 Due Thurs 6/1	
<i>Required</i>	<i>Recommended</i>
8.1 p. 363 #21, 27, 33, 39, 41, 45, 49, 53, 55, 59, 65, 73, 79, 85, 97, 103, 105	8.1 p. 363 #1-20
8.2 p. 370 #9, 13, 15, 19, 23, 29, 35, 43, 47, 51, 55, 57, 61,	8.2 p. 370 #1-6
8.3 p.375 #7, 11, 17, 21, 23, 27, 31, 35,	8.3 p.375 #1-6
8.4 p. 382 #7, 11, 15, 17, 19, 23, 27, 37, 41	8.4 p. 382 #1, 3
8.5 p. 394 #13-35 odd, 37, 43-46 (draw them), 51, 61	8.5 p. 394 #1-12
8.6 p. 403 #9, 13, 21, 25, 33,	8.6 p. 403 #5-8

Math 150 Assignment Format

All assignments from the textbook should be done according to this format or it may not be accepted.

1. Complete work on white or yellow paper. It can be blank, lined, or graph paper but writing must be clear. You can work in one or two columns and write on the back side provided it's neat.
2. Include your name, course number, and assignment number.
3. For each new section, write down the section and all problem numbers. SKIP A LINE.
4. Write and circle each problem number.
5. Write the problem. This includes sketching the graphs. You can shorten/abbreviate.
6. Show all work neatly and work vertically.
7. Box in your final answers.
8. Skip a line before the next problem. Complete problems in order.
9. Staple pages together before class starts.
10. Assignments are due at the start of class. If turned in after the initial collection, it will be considered late and earn less points.

A COLUMN OF JUST ANSWERS WILL RECEIVE NO CREDIT.

Example:

Handwritten student work on lined paper. The work is organized into sections. At the top right, there is a header for student information: "First Name Last Name", "Math _____", and "Assignment 1".

The first section is labeled "1.1 # 2, 6, 14, 18". Below this, problem 2 is circled and the equation $2x - 1 = 7$ is written. The student shows the following work:

$$\begin{array}{r} 2x - 1 = 7 \\ +1 \quad +1 \\ \hline 2x = 8 \\ \hline x = 4 \end{array}$$

The final answer $x = 4$ is boxed.

Problem 6 is circled and the equation $1 - 3x = -8$ is written. The student shows the following work:

$$\begin{array}{r} 1 - 3x = -8 \\ -1 \quad -1 \\ \hline -3x = -9 \\ \hline x = 3 \end{array}$$

The final answer $x = 3$ is boxed. There are three vertical dots below this problem, indicating that other problems were not shown.

The second section is labeled "1.2 # 8, 14, 20, 23". Below this, problem 8 is circled and the instruction "Evaluate $x^2 - x - 6$ when $x = -3$ " is written. The student shows the following work:

$$\begin{array}{r} (-3)^2 - (-3) - 6 \\ 9 + 3 - 6 \\ 12 - 6 \\ \hline 6 \end{array}$$

The final answer 6 is boxed.

My Math 150 Grade Tracker

This is an optional way to help you keep track of your grade throughout the semester. I strongly advise you keep a binder organized with these categories. If you ever have any question about how to calculate your grade, please see me.

Quizzes

Quiz 1: ____/6
Quiz 2: ____/6
Quiz 3: ____/6
Quiz 4: ____/6
Quiz 5: ____/6
Quiz 6: ____/6
Quiz 7: ____/6
Quiz 8: ____/6
Quiz 9: ____/6
Quiz 10: ____/6
Quiz 11: ____/6
Quiz 12: ____/6

(Cross out lowest 2 scores before adding)

Subtotal: ____/90

Practice

Assignment 1: ____/10
Assignment 2: ____/10
Assignment 3: ____/10
Assignment 4: ____/10
Assignment 5: ____/10
Assignment 6: ____/10
Assignment 7: ____/10
Subtotal: ____/60

Exams

Exam 1: _____/100 _____ %
Exam 2: _____/100 _____ %
Exam 3: _____/100 _____ %
Subtotal: _____/300

<p>Grade-to-date (halfway):</p> <p>Practice: _____</p> <p>Quizzes: _____</p> <p>Exams: _____</p> <p>Subtotal: _____ out of _____</p>

<p>Grade-to-date (before final exam)</p> <p>Practice: _____/60</p> <p>Quizzes: _____/90</p> <p>Exams: _____/300</p> <p>Subtotal: _____/450</p>
