



Division: Mathematics
Course name: Math 241: Trigonometry
Sections: 1499 / **Semester:** Spring 2015

Instructor Name: H. Feiner

School Website: www.wlac.edu

Class Hours: MTuWTh
 11:10 a.m. – 12:15 a.m.

Address: 9000 Overland Ave., Culver City, CA 90230
Location: AT 201 (may change)

Office Hours: MTuWTh
 2:30-4:15 P.M.

Instructor E-mail: FeinerH@wla.edu
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Welcome

This semester, you will work to develop your algebraic thinking skills. The goal is for you acquire the basic skills needed to succeed in subsequent technical classes and become more confident. The skills you learn here will help you succeed both in and out of class. However, your education is ultimately YOUR responsibility. YOU determine your level of success. Successful college students are self-motivated. Successful college students understand the importance of studying the material, coming to class prepared and practicing skills learned. YOU CAN DO IT and I'm here to help. Work with me, even when my method is different from what you learned before. Reconcile my presentation with what you think you remember. I try to teach you understanding, not just blind memorization of rules. 😊

Course Description:

This course of analytical trigonometry includes solutions to triangle problems, radian measure, graphs of trigonometric functions, trigonometric equations, identities, polar coordinates and inverse trigonometric functions and complex numbers, and vectors.

This course is designed to give students an understanding of and solidification of the basics of trigonometry. To attain this mastery, students must have a genuine desire to combat algebraic deficiencies. Students are on the second floor of their technical endeavor. If students think that algebra is irrelevant to their course of study, remember that half the jobs in the future have not yet materialized. We live in a technical society. If you are just out of high school, twenty years from now, when you have more responsibilities and less time, you may regret that you were not serious in mastering trigonometry basics. This course is UC/CSU transferable and qualifies for the honors program.

Required Texts

The textbook. Is "Trigonometry", 7th Edition | ISBN-13: 9781111826857, McKeague/Turner

You are expected to do homework from the first day on. Lacking Internet access is no excuse. Computers are available in the HLCR (library, first floor).

Having no book yet is no excuse either. You can do substitute homework online as follows:

Log into <http://www.interactmath.com/>

Enter

Choose a book > (scroll down) **Lial: Trigonometry, 10e**

Submit

Chapter Contents opens. Click on chapter 1 and expand (click on the plus sign).

Click on section 1 “[Angles and the Trigonometric Functions](#)” Select question 1. Choose the proper answer and check it.

Then click on circle 2, etc. Exercise all the questions,

When finished, click on Close.

A summary is shown with green checkmarks and/or red Xs. Print this page so that you have proof of having done homework. Put the summary in your homework notebook.

Recommended Materials

A scientific calculator.

Required Materials

- One notebook for class notes
- #2 pencils or pens, and an eraser
- and one for homework.

Course Objectives: (use COR / ECD approved objectives)

By the end of the course, the student should be able to explain concepts, solve problems, and compare and contrast the following topics:

1. The six trigonometric functions
2. Angles, degrees, radians, and angle measurement
3. Right triangle trigonometry
4. Calculators and the values of the trigonometric functions of acute angles
5. Circular functions
6. Arc length and area of sector
7. Graphing and inverse functions
8. Basic graphs
9. Amplitude, period, and phase shift
10. Proving trigonometric identities
11. Solving trigonometric equations
12. The laws of sines and cosines
13. Vectors, an algebraic approach
14. Complex numbers, and trigonometric forms
15. Polar coordinates, and equations in polar coordinates.

Student Learning Outcomes (SLO)

- Use the trig ratios and the laws of sines and cosines to solve applied problems involving triangles.

Criterion Level : At least 60% of students will achieve at least the 70% level on this SLO.
Locate and utilize supplemental resources online and in textbooks

- Graph sinusoidal functions of real numbers and use them to model periodic processes.

Criterion Level : At least 50 % of students will achieve at least the 65% level on this SLO.

Course Requirements and assignment guidelines

If you don't have internet access at home, to get started on homework because you do not have a book, there are computer labs on campus.

Quizzes

Quizzes will be given regularly to ensure that you are keeping up with the readings, homework, and attending class. Missed quizzes cannot be made up, even if you arrive late to class. Any extra credit points given to the class will not be given to a student who misses three unexcused absences or six instances of tardiness. An excuse needs to be substantiated in writing.

Other assignments, as listed below, will occur in class and serve to reinforce learning:

- Homework. Collect only homework in your notebook for homework. Do enough problems in the sections we cover in class. Bring to class daily. Turn in before a scheduled test. Show the chapter and section number on each odd-numbered page. Show your reasoning/work unless the problem is trivial. Box in your answers. No late homework.
- Exams (no exam will be dropped)
- Final
- Bring your textbook and supplies to class every time.

Late Assignments

No credit.

Grading

Assignment Category	# of Assign.	Points Per Assignment	Total Points	% of Total Grade
Quizzes	Approximately 25	2	50	Extra credit
Tests	4	100	400	53%
Final	1	300	300	40%
Homework	4	10	50	7%
Grand Total	36	-	900	100%
676 – 750 (90%) = A	601 - 675 (80%) = B	526 –600 (70%) = C	451 - 525 (60%) = D	450 and below = F

Class Policies

Attendance

Because class discussions are an integral part of this course, attendance is mandatory. Up to 3 absences are allowed. After that, you could be dropped. Students are expected to attend every class meeting, to arrive on time and stay throughout the class period. **Excessive absenteeism, as well as walking in and out of class, will lower your grade through omission of extra credit.** 3 tardies = 1 absence. Students may be dropped from class for excessive tardiness, or for failure to attend class the first day.

Walking In and Out of Class

When you arrive to class, make sure you have used the restroom, had a chance to eat, check your messages, etc. Walking in and out is rude and disruptive. If you need to leave early, or have some other problem, you need to notify me in advance. **Any student who makes a habit of walking in and out of class may be asked to leave.**

Preparedness

You are expected to arrive on time. You will come to each class session prepared. You will have your book, notebooks, pens/pencils, any work that is due, and you will be prepared to discuss all past assignments.

Cell Phones, iPods, etc.

Turn them off and put them away when class begins! Although it may not seem possible, you can survive without talking and texting on your cell phone, or listening to your iPod, for a little over an hour. Talking and texting on cell phones not only distract you, but they are a distraction for me and your peers. Distractions interrupt/disrupt the class and I will not tolerate interruptions. **You will be asked to leave if this occurs.**

Contacting Me

E-mail is the best and quickest way to contact me. **If you have a problem, do not let it snowball. Contact me immediately.** Students are expected to ask questions and obtain help from instructor via **email and/or during office hours.**

For more information refer to the attached link:

http://www.wlac.edu/academics/pdf/WLAC_12-14Catalog_Policies.pdf

College Policies:

Academic Integrity (Plagiarism)

In accordance with code 9803.28, **academic dishonesty is prohibited and will not be tolerated in this class.** Violations of academic integrity include, but are not limited to, the following actions: cheating on an exam, plagiarism, working together on an assignment, paper or project when the instructor has specifically stated students should not do so, submitting the same term paper to more than one instructor, or allowing another individual to assume one's identity for the purpose of enhancing one's grade. Academic dishonesty of any type, such as cheating or knowingly furnishing false information, by a student provides grounds for disciplinary action by the instructor or college. In written work, no material may be copied from another without proper quotation marks, footnotes, or appropriate documentation.

- **Plagiarism (cheating during an exam) will result in a zero for the assignment, possible dismissal from the class and disciplinary action from the college.**

Student Conduct

According to code 9803.15, disruption of classes or college activities is prohibited and will not be tolerated. Refer to the catalog and the Standards of Student Conduct in the Schedule of Classes for more information.

Recording Devices

State law in California prohibits the use of any electronic listening or recording device in a classroom without prior consent of the instructor and college administration. Any student who needs to use

electronic aids must secure the consent of the instructor. If the instructor agrees to the request, a notice of consent must be forwarded to the Vice President of Academic Affairs for approval (WLAC College Catalog).

For more information refer to the attached link:

http://www.wlac.edu/academics/pdf/WLAC_12-14Catalog_Policies.pdf

Campus Resources

As stated earlier in this syllabus, **if you are having problems, don't let them snowball.** Come and talk with me and check out some of the campus resources available to you.

Office of Disabled Student Programs and Services (DSP&S)

Student Services Building (SSB) 320 | (310) 287-4450.

West Los Angeles College recognizes and welcomes its responsibility to provide an equal educational opportunity to all disabled individuals. The Office of Disabled Students Programs and Services (DSP&S) has been established to provide support services for all verified disabled students pursuing a college education. DSP&S students may qualify for: priority registration, registration assistance, special parking permits, sign language interpreters and assistive technology (WLAC College Catalog).

Instructional Support (Tutoring) & Learning Skills Center

Heldman Learning Resources Center (HLRC) | (310) 287-4486

Improve your reading, language, vocabulary, spelling, math fundamentals and chemistry knowledge with convenient, self-paced computer-aided courses in the Learning Skills Center. Increase your knowledge and learning success: sign up for tutoring in various college subjects (WLAC College Catalog).

Library Services

Heldman Learning Resources Center (HLRC) | (310) 287-4269 & (310) 287-4486

The WLAC Library provides instruction on how to use the online catalog, periodical and research databases. In addition to a large collection of books, periodicals and videos the WLAC Library has course textbooks which students may use while in the Library. Web access is available in LIRL as well as meeting rooms. The upper floors provide a beautiful view ideal for study (WLAC College Catalog).

For more information refer to attached link:

http://www.wlac.edu/academics/pdf/WLAC_12-14Catalog_Policies.pdf

Math 241 Class Schedule – Spring 2015

11:10 a.m. – 12:15 p.m.

NOTE: This syllabus and class schedule is subject to change if circumstances warrant it (e.g. student performance, etc.). Expect revisions and divergences.

Tentative schedule:

M 2-09: 1.1 Angles, Degrees, and Special Triangles	T 2-10: 1.2 The Rectangular Coordinate System	W 2-11: 1.3 Definition I: Trigonometric Functions	Th 2-12: 1.4 Introduction to Identities
M 2-16: Review	T 2-17: 1.5 More on Identities	W 2-18: Chapter 1 test	Th 2-19: 2.1 Definition II: Right Triangle Trigonometry
M 2-23: 2.2 Calculators and Trigonometric Functions of	T 2-24: 2.3 Solving Right Triangles	W 2-25: 2.4 Applications	Th 2-26: 2.5 Vectors: Geometric Approach

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M 5/18: Cumulative Review Exercises page 354 (All the problems)		W 5/20: Review	
M 5/25: No classes		W 5/27: Review	
M 6/01: Final ?		W 6/03:	
an Acute Angle			
M 3-02: Chapter 2 test	T 3-03: Test 1	W 3-04: 3.1 Reference Angle	Th 3-05: 3. 2 Radians and Degrees
M 3-09: 3.3 Definition III: Circular Functions	T 3-10: 3.4 Arc Length and Area of a Sector	W 3-11: 3.5 Velocities	Th 3-12: Chapter 3 test
M 3-16: 4.1 Basic Graphs	T 3-17: 4.2 Amplitude, Reflection, and Period	W 3-18: 4.3 Vertical and Horizontal Translations	Th 3-19: 4.4 The Other Trigonometric Functions
M 3-23: 4.5 Finding an Equation from Its Graph	T 3-24: 4.6 Graphing Combinations of Functions	W 3-25: 4.7 Inverse Trigonometric Functions	Th 3-26: Chapter 4 test
M 3-30: closed	T 3-31: Test 2	W 4-01: 5.1 Proving Identities	Th 4-02: 5.2 Sum and Difference Formulas
M 4-06: closed	T 4-07: closed	W 4-08: closed	Th 4-09: closed
M 4-13 : 5.3 Double-Angle Formulas	T 4-14: 5.4 Half-Angle Formulas	W 4-15: 5.5 Additional Identities	Th 4-16: Chapter 5 test
M 4-20: 6.1 Solving Trigonometric Equations	T 4-21: 6.2 More on Trigonometric Equations	W 4-22: 6.3 Trigonometric Equations Involving Multiple Angles	Th 4-23: 6.4 Parametric Equations and Further Graphing
M 4-27: Chapter 6 test	T 4-28: Test 3	W 4-29: 7.1 The Law of Sines	Th 4-30: 7.2 The Law of Cosines
M 5-04: 7.3 The Ambiguous Case	T 5-05: 7.4 The Area of a Triangle	W 5-06: 7.5 Vectors: An Algebraic Approach	Th 5-07: Vectors: The Dot Product
M 5-11: Chapter 7 test	T 5-12 : 8.1 Complex Numbers	W 5-13: 8.2 Trigonometric Form for Complex Numbers	Th 5-14: 8.3 Products and Quotients in Trigonometric Form
M 5-18 : 8.4 Roots of a Complex Number	T 5-20: 8.5 Polar Coordinates	W 5-21: 8.6 Equations in Polar Coordinates and Their Graphs	Th 5-22: Chapter 8 test
M 5-26 : closed	T 5-26: closed	W 5-27: Test 4	Th 5-28: Review
		Th 6-04: Final 11:30-1:30 P.M.	