South Plains College
Mathematics Department
Trigonometry – MATH 1316
Course Syllabus – Fall 2016

Instructor: Karol Albus
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Office hours: Monday: 3:00-4:30, Tuesday: 10:00-11:00, Wednesday: 9:30-10:00, Thursday: 10:00-11:00, Friday: 8:00-12:00 Other times by appointment.

Disclaimer: The instructor reserves the right to alter any class policies/dates as deemed necessary by the instructor, and will announce any changes in class.

Please check your email regularly as it is they only way I have to contact you outside of class.

Course Description: MATH 1316 – Trigonometry (3:3:0) Topics will include trigonometric functions, radian measure, logarithms, oblique triangles, functions of composite angles, trigonometric identities and equations, and inverse trigonometric functions. Semester Hours: 3 Lecture Hours: 3 Lab Hours: 0 Pre-requisite: MATH 1314 or two units of high school algebra.

Text: *Trigonometry*, by Dugopolski, ISBN-10: 0321923480. **The book is not optional.** Please do not try to use an electronic device for a book. Your assignments, as well as additional explanation, will be in the book. You will need to bring it with you to class every day except exam days.

Supplies: You will need the book, calculator, 3 ring binder (1.5 inch), dividers, paper, graph paper (no smaller than 4 squares per inch), pencils, and erasers. **You will be allowed the use of a calculator with Trig Functions and DMS most of the time. However, it will be restricted on some days. You may NOT use your cell phone/iPad as your calculator, TI-89, TI-92 or TI-Nspire.**   These are pretty basic supplies, but you will need to bring them to each class. I require pencil on all graded work. You will have one warning, and after that, you will earn a zero on that work because you failed to follow my instruction.

Purpose:
The purpose of this course is to provide a transferable course in trigonometry and to provide a thorough study in standard university-level trigonometry necessary for further studies in the calculus sequence.

Student Learning Outcomes:
1. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
2. Graph trigonometric functions and their transformations.
3. Prove trigonometric identities.
4. Solve trigonometric equations.
5. Solve right and oblique triangles.
6. Use the concepts of trigonometry to solve applications.

Attendance: Attendance and effort are the most important activities for success in this course. Class attendance may be taken at any time during the class period, so please do not be late or leave early. Leaving early and being tardy will be considered ½ absence. **You may be dropped from this course with a grade of X or F if you are absent four consecutive classes or if you accrue five absences (for any reason) throughout the semester.** If you should incur an absence, please refer to your syllabus, contact the instructor, or contact another student to get the assignment completed BEFORE the next class. **Late homework and makeup quizzes are not an option.** I will drop 4 daily grades which may include zeros from absences. Make ups for Exams will only be provided under extreme, documented circumstances. If at all possible, the instructor should be notified prior to the exam day.

Assignment Policy: Homework will be assigned at each class meeting. The homework is not a tool by which I torture you, but rather an opportunity for you to practice the skills presented in class which you will be responsible to demonstrate on a quiz the following class period. If you are interested in passing the class, you will need to do well on the quizzes. To do well on the quizzes, you will need to complete the homework. No late assignments will be accepted. You should show all work when doing homework. Simply writing the problem and the answer from the back of the book is not "doing homework." Using a solutions manual or an app that shows you the steps, and copying them down is NOT "doing homework." **Remember your effort is key to your success. You have to focus your effort on being able to complete the problems on a quiz without any outside resources.**

Grading: Daily work (homework, quizzes and notebook) will be 16% of your final grade. You can expect 4 major exams worth 16% each, and a cumulative final exam that will count 20%. Your final average in the course will determine the letter grade posted on your transcript. The scale used is: A (90-100%), B (80-89%), C (70-79%, D (60-69%), F (0-59).

Grade Reporting: Grades will be posted on blackboard. If you think I have recorded a grade incorrectly, please notify me immediately. I keep a hard copy of my grades and will be glad to check it.

Phones and other electronics: All electronic devices are inappropriate. Suspected use will earn you a zero for that day's quiz or homework. If you use an electronic device (cell phone, iPad, iPod, headphones) during an exam, you will earn a zero on the exam and may be dropped from the course. Please do not use a phone or iPad as your book or calculator.

Test days: Test days are very serious days. **Once you begin the exam, you will not be allowed to leave the classroom until the exam is submitted for grading**. Use the restroom before class and bring plenty of sharp pencils. Use of electronics on an exam day earns you a zero on the exam and possible dismissal from the course.

Where to Get Help:
- Me! – My office hours are listed at the top of this syllabus. I am also available at some other times by appointment. Email is a great way to contact me – much faster than phone calls and messages. Sometimes I can help on email if you will send a photo of the problem you are doing. Even if I am not in the office, I can work the problem, take a photo and send back. You CANNOT ask for #35 – I won't have my book with me.
- Free tutoring and video tapes are available in M116 on the Levelland campus. The hours for tutors are posted by that door and I will post it on blackboard as it becomes available to me. Digital versions of the videos are available on YouTube. I will post the links to these videos on Blackboard. Occasionally I will post helpful items on blackboard such as solution sets. **If you are not familiar with Blackboard, you should become familiar**. The login and password should be the same as your MySPC.
- Your book is a great resource and it is already purchased!
- You can also seek videos from www.patrickjmt.com and www.khanacademy.org or others.
- **I also strongly recommend forming study groups so that you can work with others. Networking is an essential tool both in the classroom and in the workforce.**

You should expect to spend as much time outside of class as you do in class practicing homework problems and studying. The goal is for you to acquire the skills necessary to be successful in your next MATH course. I WILL NOT send you to the next course if you cannot demonstrate that you have those skills.

Religious Holy Days: In accordance with Section 51.911, Texas Education Code, South Plains College will allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within seven (7) calendar days after the absence. Students are required to file a written notification of absence with each instructor within the first fifteen (15) days of the

semester (Monday, September 19, 2016) in which the absence will occur. Forms for this purpose are available in the Student Services Office along with instructions and procedures. "Religious holy days" means a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code. (copied from current South Plains College catalog)

Diversity Statement: In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be. (copied from current South Plains College Faculty Handbook)

Disabilities Statement: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Academic Honesty: You are expected to uphold the ideals of academic honesty. All work that is graded must be your own. This policy applies to all work attempted in this course. If this policy is violated the student will receive an F for the assignment and will be dropped with an F. For more details on what is considered cheating, see the South Plains College catalog.

Equal Opportunity: South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, sexual orientation, disability, or age.

Communication Skills: effective development, interpretation, and expression of ideas through written, oral, and visual communication.
> Develop, interpret, and express ideas through written communication
> Develop, interpret, and express ideas through oral communication
> Develop, interpret, and express ideas through visual communication

Critical Thinking: creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information.
> Generate and communicate ideas by combining, changing, and reapplying existing information
> Gather and assess information relevant to a question
> Analyze, evaluate, and synthesize information

Empirical and Quantitative Competency Skills: the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
> Manipulate and analyze numerical data and arrive at an informed conclusion
> Manipulate and analyze observable facts and arrive at an informed conclusion

Trigonometry Tentative Course Outline
MATH 1316.001 (MW 8:00-9:15)
Fall 2016

Week	Day	Date	Topic
1	Mon	Aug 29	Prerequisite Skills Review
	Wed	Aug 31	1.1 Angles and Degree Measure
2	Mon	Sept 5	Labor Day – no class
	Wed	Sept 7	1.2 Radian Measure, Arc Length, Area
3	Mon	Sept 12	1.3 Angular and Linear Velocity
	Wed	Sept 14	1.4 The Trig Functions
4	Mon	Sept 19	1.5 Right Triangle Trigonometry
	Wed	Sept 21	1.6 Fundamental Identities and Reference Angles
5	Mon	Sept 26	**Exam 1 (16%)**
	Wed	Sept 28	3.1 Basic Identities
6	Mon	Oct 3	3.2 Verifying Identities
	Wed	Oct 5	3.3 Sum/Difference Identities for Cosine
7	Mon	Oct 10	3.4 Sum/Difference Identities for Sine and Tangent
	Wed	Oct 12	3.5 Double and Half Angle Identities
	Fri	Oct 14	*Fall Break*
8	Mon	Oct 17	3.6 Product and Sum Identities
	Wed	Oct 19	**Exam 2 (16%)**
9	Mon	Oct 24	2.1 The Unit Circle and Graphing 2.2 Basic Sine Wave 2.3 Graphs of Secant and Cosecant
	Wed	Oct 26	2.4 Graphs of Tangent and Cotangent
10	Mon	Oct 31	4.1 Inverse Trig Functions
	Wed	Nov 2	4.2 Sine, Cosine and Tangent Equations
11	Mon	Nov 7	4.3 Equations Involving Compositions
	Wed	Nov 9	4.4 Trig Equations of Quadratic Type
	Thur	Nov 10	*Spring Registration Begins*
	Fri	Nov 11	*Advising Day for these majors: Math, CS, Engineering*
12	Mon	Nov 14	**Exam 3 (16%)**
	Wed	Nov 16	5.1 Law of Sines
	Thurs	Nov 17	*Last Day to Drop Courses*
13	Mon	Nov 21	5.2 Law of Cosines
	Wed	Nov 23	Thanksgiving Holiday
14	Mon	Nov 28	5.3 Area of a Triangle
	Wed	Nov 30	5.4 Vectors
15	Mon	Dec 5	5.5 Vector Applications
	Wed	Dec 7	**Exam 4 (16%)**
16	Mon	Dec 12	**Final Exam (20%)**