South Plains College
Mathematics Department
Trigonometry – MATH 1316
Course Syllabus – Fall 2017

Instructor: Karol Albus
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Office hours: Monday: 11:00-2:00, Tuesday: 9:45-10:45, Thursday: 9:45-10:45, Friday: 9:00-12:00 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.** I require pencil on all graded work.

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 **comprehensive** 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: 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 begins. 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 is available in M116 on the Levelland campus. The hours for tutors are posted by that door.

- Occasionally I will post helpful items on blackboard such as solution sets. **If you are not familiar with Blackboard, you should become familiar**. Login at http://spc.blackboard.com. The user name and password should be the same as the MySPC and SPC email.
    User name: first initial, last name, and last 4 digits of the Student ID
    Password: Original CampusConnect Pin No. (found on SPC acceptance letter) Questions regarding Blackboard support may be emailed to blackboard@southplainscollege.edu or call 806-716-2180.
- 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.**

Disability: 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) & Lubbock Center 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Non-Discrimination Statement South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College - 1401 College Avenue, Box 5, Levelland, TX 79336, 806-894-9611

Campus Concealed Carry - Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the SPC policy at:
(http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.php)
Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

The following statements are considered at South Plains College to be CORE OBJECTIVES which are embedded into the curriculum of this course.
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 2017

Week	Day	Date	Topic	Tentative Assignment
1	Mon	Aug 28	Prerequisite Skills Review	Worksheet
	Wed	Aug 30	1.1 Angles and Degree Measure	p. 51 11-103 odd & 108
2	*Mon*	*Sept 4*	*Labor Day Holiday*	
	Wed	Sept 6	1.2 Radian Measure, Arc Length, Area	p. 60 5-111 odd omit 103, 107
3	Mon	Sept 11	1.3 Angular and Linear Velocity	p. 68 5-43 odd &47
	Wed	Sept 13	1.4 The Trig Functions	p. 78 5-95 odd omit 89
4	Mon	Sept 18	1.5 Right Triangle Trigonometry	p. 89 1-73 odd
	Wed	Sept 20	1.6 Fundamental Identities and Reference Angles	p. 102 3-53 odd
5	Mon	Sept 25	Review	
	Wed	**Sept 27**	**Exam 1 (15%)**	
6	Mon	Oct 2	3.1 Basic Identities	p. 167 1-73 odd
	Wed	Oct 4	3.2 Verifying Identities	p. 175 5-73 odd
7	Mon	Oct 9	3.3 Sum/Difference Identities for Cosine	p. 182 5-89 odd
	Wed	Oct 11	3.4 Sum/Difference Identities for Sine and Tangent	p. 188 1-55 odd
	Fri	*Oct 13*	*Fall Break*	
8	Mon	Oct 16	3.5 Double and Half Angle Identities 3.6 Product and Sum Identities	p. 196 1-61 odd
	Wed	Oct 18	Review	
9	**Mon**	**Oct 23**	**Exam 2 (15%)**	
	Wed	Oct 25	2.1 The Unit Circle and Graphing 2.2 Basic Sine Wave 2.3 Graphs of Secant and Cosecant	p. 119 71-89 odd p. 129 11-27 odd p. 138 33-53 odd
10	Mon	Oct 30	2.4 Graphs of Tangent and Cotangent	p. 146 35-51 odd
	Wed	Nov 1	4.2 Sine, Cosine and Tangent Equations	p. 235 3-61 odd
11	Mon	Nov 6	4.3 Equations Involving Compositions	p. 242 1-79 odd
	Wed	Nov 8	4.4 Trig Equations of Quadratic Type	p. 250 1-83 odd omit63
12	**Mon**	**Nov 13**	**Exam 3 (15%)**	
			Online Registration for Spring 2018 Opens	
	Wed	Nov 15	5.1 Law of Sines	p. 265 5-29 odd & 33
	Thurs	*Nov 16*	*Last Day to Drop a Class*	
13	Mon	Nov 20	5.2 Law of Cosines 5.3 Area of a Triangle	p. 274 5-17 odd &30 p. 281 3-25 odd
	Wed	*Nov 22*	*Thanksgiving Holiday*	
14	Mon	Nov 27	5.4 Vectors 5.5 Vector Applications	p. 292 9-85 odd p. 301 1-19 odd
	Wed	Nov 29	Review	
15	**Mon**	**Dec 4**	**Exam 4 (15%)**	
	Wed	Dec 6	Comprehensive Review	
16	**Mon**	**Dec 11**	**Final 8:00-10:00**	