Math 1316 Syllabus
Plane Trigonometry
Summer II 2018 Sul Ross State University

Sec. S01:	M, Tu, W, Th, F: 1:30-3:05p in ACR 204
Instructor:	Dr. Kris Jorgenson
Office:	ACR 109D
Phone:	(432) 837-8398, cell: (210) 422-3672
E-mail:	kjorgenson@sulross.edu
Office Hours:	M, Tu, W, Th, F: 11:25a-12p, 3:05-4:00p;
	also available by appointment

Course Description: The prerequisite is Math 1314 or equivalent (College Algebra). The course will cover the topics of directed angular measure, definitions and evaluation of trigonometric functions, graphs of trig functions, the inverse trig functions, trigonometric identities and conditional equations, and applications of trigonometry laws for solving triangles to real-world problems, areas, harmonic motion, and geometric vectors.

Student Learning Objectives: Successful students will demonstrate correct understanding and knowledge of the topics of algebra and trigonometry including but not limited to those listed in the previous paragraph through use of correct terminology and problem-solving techniques. Students will translate, extend, synthesize, and apply knowledge of concepts and problem-solving methods to different problem-solving situations. Students will demonstrate correct knowledge of the difference between numbers that are in exact form and numbers that are approximate and will be able to report numbers in exact form and with a correct approximation when required. Such numbers are often in the context of other mathematical objects such as a function or algebraic expression. Students will express their solutions clearly in writing and in complete sentences when appropriate.

Required Materials: Textbook: Trigonometry, A Unit Circle Approach, 9th edition by Michael Sullivan, ISBN: 0321716574, the subject matter of Chaps. 1-5 with some extra material in aid of these topics. I will try to place a previous Edition 8 on reserve with a document to convert problems numbers that have changed in the 9th edition.
Scientific Calculator: There will be some need of a scientific calculator though calculators may be used to check arithmetical calculations throughout the semester. A scientific calculator contains buttons with the denotations such as y^x, a^b, e^x, SIN, COS, TAN, but use of a calculator will not be a large part of this course. Appropriate scientific calculators cost usually $8-$30 each. Symbolic graphing calculators such as the TI-89 or TI-92 will not be allowed. Non-symbolic, menu-driven graphing calcultors may be used. Please check with me about this at the beginning of the semester.
Class Materials: Students are expected to be prepared in every class with pencils and paper to take notes and get involved in in-class assignments. This will be part of your grade. You should also have access to Blackboard and have an e-mail address that you check regularly be your e-address registered in Bb since I may need to contact you outside

of class with important information.

Grading: Your total grade will break down as follows:
Daily Grade (**DG**) worth **30**%
Test Average (**TA**) worth **70**% will be based on 4 in-class tests.

The **DG** will consist of **Homework** (**HW**), **Quiz** grades, and **Class Study Grades** (**CSG**) **Quiz and HW grades** count equally for **20**% of your grade. **Class Study Grades** are based on attendance and class participation and counts for **10**% of your grade. The unit assignments will be handed out at the beginning of each unit of study. Quizzes and tests will be based on these unit assignments. Students need to keep a homework notebook, which can be used during most in-class quizzes (with exceptions), but not in-class tests.

Many **HW** problems will be done as in-class exercises. HW will be submitted a couple of times before each test. When you hand in HW, pages containing the required HW should be submitted, but NO BLANK PAPER SHOULD BE SUBMITTED. There will be about 2 in-class or take-home quizzes before each test.

There will be 4 tests given during the term. Each test will be a unit test covering the assignments of that unit. The dates for these tests are as follows.

Test 1	**Wed July 18**
Test 2	**Fri July 27**
Test 3	**Tue August 7**
Test 4	**Thu August 16**

Each of the 4 tests will count in the Test Average. However as a bonus to you, your highest test grade will count twice. Therefore, you will have 5 test grades in all. I will not allow notes or books on the tests. On Test 3, 1 page of formulas will be handed to you with the test. Scientific calculators will be allowed on the tests except for most of Test 2; though you will be allowed the use of your calculator on one section of Test 2. Calculators will not be allowed on any quizzes (just prior to Test 2) that involve inverse trig functions.

Extra Credit: I will allow students to add points to the test average (up to 10% of a test grade) by completing an extra credit assignment. This will be an application problem over a topic covered in one of the units of study and would be different for each student and must be approved by me. I will have some suggested problems for this, but a student may pick a problem of interest from the textbook as long as it has my approval. A student seeking extra credit in this way must complete this process, including discussion with me to ensure the student's understanding of the problem by Tuesday Aug. 14. The problem must be chosen and approved by me by Friday, Aug. 3 (or earlier) and handed in to me by Fri., Aug. 10 (or earlier).

Late Work, **Rescheduled Quizzes/Tests** Deadlines will be stated for each homework grade. Sometimes there is some flexibility, but often homework handed in late is for half credit To take an in-class quiz or test at a time other than the scheduled time, you must notify me of this absence on or before the day missed, and satisfy one of two requirements: either (1) supply a written medical excuse signed by a medical professional for the day of the absence, or (2) if your excuse is for a university activity, you must notify me about this authorized absence in writing with your name, the name of your organization and the date(s) of your absence (sending me an e-mail is a good way to do this), and your name

must appear on a published explained absence list that I am provided (or verified by a faculty sponsor). Also, you and I must set up a time for you to make up the quiz or test within a reasonable time period (not more than 1 or 2 days) before or after the time of the missed grade. Usually I will let you make up a grade according to the above conditions if it is due to another one-time occurrence, such as the care of someone else in your family or a friend, or a work-related excuse as long as you can document your absence and you let me know BY THE DAY OF THE ABSENCE AT THE LATEST.

Attendance I will be taking attendance as university policy precludes you from missing more than 4 classes for anything other than authorized university activities. To excuse an absence for a university activity, in addition to letting me know of the absence by the day of the absence (as explained previously) you must also spend at least 90 minutes outside of class on this course with me or with a tutor, but they will need to sign a note that documents this made-up time. Also I will allow you to excuse a test day for a documented medical absence as long as you also make up the test with me or in the testing center. If you have 5 or more unexcused absences, I reserve the right to drop you from this class with a grade of 'F', which is university policy.

Good Advice Concentrate on learning the material of the course rather than worrying about your grade. Your time is best spent concentrating on the material to be learned in the impending assignments, asking questions, and devoting yourself to activities that will help you learn the material and do better in the course. I will worry about the details of your grade since you doing so does not help you earn a higher grade. But learning the material and doing well on the tests *will* help your grade. **Remember that math is not a spectator sport**, so the more problems you work yourself, the more practice you get, the more confident you will be, and the better you will do in this course. Working on the problems helps you to figure out what your specific questions are.

More Good Advice

Keep absences to a minimum. You never know when you might miss something you will find important either from the lecture or class discussion such as questions other students ask. Remember: YOU ARE RESPONSIBLE FOR EVERYTHING THAT IS DISCUSSED DURING CLASS WHETHER YOU ARE PRESENT OR NOT.

Also do not allow yourself to develop bad habits such as missing classes. It's human nature to be controlled by our habits, so once you develop a daily habit for the semester, it can be hard to break this habit. So be sure that you allow the necessary time for this course FROM THE BEGINNING, ESPECIALLY if you consider mathematics not to be your best subject. If you have trouble in math, then you should attend EVERY class of a college mathematics course. Not showing up to class or not doing the required work will not cause this class to "go away". If you are not understanding the material and/or have fallen behind in your work, missing class will not help. IF YOU FALL BEHIND, PLEASE DO NOT DROP THIS COURSE WITHOUT TALKING TO ME FIRST. Making mistakes or falling behind is natural, so it is best in this case to come to class and talk to me about this. If you do have to miss, let me know before class, and plan to come and see me and make an appointment to discuss what was missed and pick up assignments or discuss what you are not understanding. It is essential to get your questions answered, which you are welcome to do in my office. However meeting in my office is not a substitute for attending class.

Ask questions no matter how easy or trivial they may seem. There is no such thing as a bad or silly question. Questions result when you are interested and have been thinking

about areas, such as mathematics, in which you have some limitations in your educational background. Being in a college mathematics course means you will have questions both obvious and more subtle. Asking questions is a very important part of learning.

Study and work problems regularly–every day. You should complete at least 5-10 assignments daily on average during the semester. Work on assignments discussed in class as soon as you can after class while the methods discussed are still fresh in mind. You can't expect to succeed in a math course by waiting till the last minute to only study and cram prior to a test. If you promise yourself you will study for ½-hour, get into the work, forget the clock, then the next thing you know, you've studied and worked for one to two hours.

Classroom Conduct It is important to conduct yourself in a college classroom so that everyone can benefit from good communication between instructor and students. My goal is to create a classroom environment in which everyone can do their best work, learn, and make the best grades possible.

I think you will find that I am a very friendly, sympathetic, and generous instructor as long as you are sincerely working to succeed in this course and certain guidelines for classroom behavior are followed to allow a sanctity of study for your fellow students. Class habits such as holding conversations during lecture, or being engaged in activities not related to this course such as working on a different course or reading a newspaper will work against the goal of this course and cause you to be counted absent. Also engaging with electronic communication devices of any kind during class or coming into class more than 5 minutes late or leaving early before class is dismissed circumvent the goals of this course and cause you to lose credit. My sympathy and generosity will quickly evaporate if I find that you are working against the goals of the course or that you are simply trying to get a good grade without learning or without honestly doing the required work. I want you to have every opportunity to succeed in this course.

Please be aware of the rules for Academic Honesty that you will find in the Sul Ross Student Handbook and building codes prohibiting food, beverages, tobacco (smokeless or otherwise) in the classroom. Use commonsense to think of anything else that will allow you to learn and do the best work that you can in this class, and for me to better help you do your best work. Remember that being registered for this course does not allow you to behave in any manner you wish during class. You must keep other people in mind. It is within university policy for me to send a student out of this class on a temporary or permanent basis if disruptions or interruptions like the types listed above persist.

Equal Access and SRSU Disability Services:

ADA (Americans with Disabilities Act) Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is the student's responsibility to initiate a request for accessibility services. Students seeking accessibility services must contact Mary Schwartze-Grisham, M. Ed., LPC., in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas. Telephone: 432-837-8691.

E-mail: mschwartze@sulross.edu .

This course is supportive of the Program Learning Outcomes for the Bachelor of Science degree in Mathematics:

The graduating student will demonstrate that he/she is able to:

- Apply knowledge of basic mathematics principles;
- Identify and provide valid proofs or solutions for theorems and problems;
- Recognize and dispute invalid mathematical statements using counter-examples.

Important Dates

Tue, July 10	First day of classes; late registration, schedule changes begin
Thu, July 12	Last day for late registration and schedule changes
Fri, July 13	4th class day
Thu, Aug. 2	Last day to drop a course with grade of “W” by 4 pm in Registrar’s Office
Thu, Aug. 16	Last Class Day, Final Exams

Math 1316 Plane Trigonometry--Tentative Course Outline--Summer 2, 2018			
July 10-11	Mon	Tue	Wed
	X = no class	Distance, Midpoints Circles Angle Measures	Radians, Degrees Arc Lengths Area of Sector
July 12-13		Thu	Fri
		Wheel Rotation Similar Triangles Triangle Angles, Functions	Triangle Trig Defns General Trig Definitions
July 16-18	Mon	Tue	Wed
	Point Angles Coterminal Angles	Review Test 1	**July 18 Test 1**
July 19-20		Thu	Fri
		Even/Odd Functions Graphs Sine, Cosine Domain, Range, Periods	Pythagorean Identities Fundamental Identities Graphs Tan, Cot, Sec, Csc
July 23-25	Mon	Tue	Wed
	Domain, Range, Periods of tan, cot, sec, csc Inverse Functions	Inverse Trig Functions Inverse Trig Evaluations	Equations Right Triangle Applications
July 26-27		Thu	Fri
		Review Test 2	**July 27 Test 2**
July 30-Aug. 1	Mon	Tue	Wed
	Angle Sum Difference Double Angle Formulas Half Angle Identities	Cofunction Identities Law of Sines	Law of Sines, Cosines
Aug. 2-3		Thu	Fri
		Law of Cosines Areas	Periods, Harmonic Motion
Aug. 6-8	Mon	Tue	Wed
	Review Test 3	**August 7 Test 3**	Polar Coordinates, Graphs
Aug. 9-10		Thu	Fri
		Polar Graphs, Polar Forms Complex Nos	Polar Forms Comp. Nos
Aug. 13-15	Mon	Tue	Wed
	Geometric Vectors	Geometric Vectors Dot Products, Applications	Review Test 4
Aug. 16		Thu	
		August 16 Test 4	