

South Plains College  
 Department of Mathematics & Engineering  
 Math1316 – Plane Trigonometry  
 Course Syllabus – Spring 2018

**Instructor:** Jerod Clopton

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**Phone:** 806-716-2738

**Office Hours:**

Monday	Tuesday	Wednesday	Thursday	Friday
Or 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.

**Use of Student Email:** The College provides a free, official email account to all students to ensure efficient and secure communications between you and the College. Students will be required to use their college-issued email address to communicate with their instructors and all other college personnel, so it is easy to distinguish a student's email from spam. The College expects that students will utilize their college email addresses to send and receive communications with college personnel and will read email on a frequent and consistent basis.

**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.

**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.

**Course Supplies:**

- **Required:** Scientific Calculator (with log and ln). **Graphing calculators are not allowed.**
- **Required:** Large 3-ring binder, dividers, notebook paper, graph paper, hole punch, pencils, and erasers.
- **Required:** (textbook) *Trigonometry*, by Dugopolski, ISBN-10: 0321923480. 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.
- **Warning:** Do not expect your instructor to have supplies for you to borrow.

**Homework/Quizzes/ Binder Checks:**

- Homework will be assigned at each class. Work the problems early enough to seek help if needed.
- Homework is due at the beginning of the next class. **Late homework will not be accepted.**
- Quizzes will be given most days. **Make-up quizzes will not be given.**
- At the end of the semester the lowest 4 grades (homework/quiz/binder) will be dropped.
- All students will keep a binder which will be used as a reference and study guide.
- The binder will be checked randomly by the instructor during the semester.

**Binder organization:**

- Section 1: Syllabus
- Section 2: Notes for each section covered—Handouts to use to take notes are posted on Blackboard. It is your responsibility to print the handouts. If you are absent, it is your responsibility to get the notes from a classmate.
- Section 3: Homework
- Section 4: Quizzes (corrected on a separate sheet of paper behind the quiz).
- Section 5: Reviews/Unit Exams
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These pages will be kept in chronological order. **Being absent does not excuse you from notes, homework or quizzes.**

**Exams:**

- 4 Unit Exams
- Final Exam is comprehensive.
- There are no exemptions for the final.
- If you are going to miss an exam contact your instructor immediately (preferably prior to the exam). Make up exams are very rare and only be provided under extreme, documented circumstances.
- Once you begin an exam, you will not be able to leave the classroom until the exam is submitted for grading.

**Grading Formula:**

Enrollment in this course does not guarantee advancement to the next course level. The final responsibility for learning lies with the student. The final letter grade for this course will be based on the following:

4 Tests 16% each.....	64%
Homework/Quizzes/Binder .....	20%
Final Exam.....	16%

**Final Grade Determination:** A(90-100%), B(80-89%), C(70-79%), D(60-69%), F(0-59%)

**Classroom Etiquette:**

- **Class attendance is expected, not optional.** 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  $\frac{1}{2}$  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 exceed five absences (**for any reason**).
- Preparation for class (including homework) is to be completed before – not during – the lecture.
- Chronic tardiness (entrance after lecture has begun) is unacceptable.
- NO tobacco use of any form is allowed in the classroom.
- Discussion of course material among students is encouraged during class, but habitually disruptive students will be asked to leave.
- All electronic communication devices are to be silenced and put away during class.

**Resources:**

- Blackboard! The course syllabus, handouts for notes, homework, quiz keys, and reviews will be available on Blackboard.
- Free tutoring is available in M116 on the Levelland campus. Hours for the tutors will be posted by there.
- I am available to help you! Feel free to come by during my office hours or email me at [jclopton@southplainscollege.edu](mailto:jclopton@southplainscollege.edu)

**Withdrawal Policy:** As required by Texas Education Code Section 51.907, all new students who enroll in a Texas public institution of higher education for the first time beginning with the 2007 fall semester and thereafter, are limited to six course drops throughout their entire undergraduate career. All course drops, including those initiated by students or faculty and any course a transfer student has dropped at another institution, automatically count toward the limit. After six grades of W are received, students must receive grades of A, B, C, D, or F in all courses. There are other exemptions from the six-drop limit and students should consult with a Counselor/Educational Planner before they drop courses to determine these exemptions. Students receiving financial aid must get in touch with the Financial Aid Office before withdrawing from a course. It is the student's responsibility to drop. Excessive absences (4 consecutive or 5 total) will result in an administrative withdrawal with a Grade of X or F. If you plan to withdraw, please consult with the instructor immediately.

**Note: The last day to drop with a grade of W is Thursday, April 26, 2018.**

**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, disability, or age.

**Core Objectives:**

**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

**Disability 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 Center 806-716-2577, Reese Center (also covers ATC) Building 8: 806-716-4675, Plainview Center Main Office: 806-716-4302 or 806-296-9611, or the Health and Wellness main number at 806-716-2529.

**Sexual Misconduct Statement:** As a faculty member, I am deeply invested in the well-being of each student I teach. I am here to assist you with your work in this course. If you come to me with other non-course-related concerns, I will do my best to help.

It is important for you to know that all faculty members are mandated reporters of any incidents of sexual misconduct. That means that I cannot keep information about sexual misconduct confidential if you share that information with me. Dr. Lynne Cleavinger, the Director of Health & Wellness, can advise you confidentially as can any counselor in the Health & Wellness Center. They can also help you access other resources on campus and in the local community. You can reach Dr. Cleavinger at 716-2563 or [lclevinger@southplainscollege.edu](mailto:lclevinger@southplainscollege.edu) or go by the Health and Wellness Center. You can schedule an appointment with a counselor by calling 716-2529.

**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](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.

## Plane Trigonometry Course Schedule for Spring 2018\*

Week	Day	Topic	Assignment
1	Tue, Jan 16	Prerequisite Skills Review	Worksheet
	Thu, Jan 18	1.1 Angles and Degree Measure	p. 51 11-103 odd & 108
2	Tue, Jan 23	1.2 Radian Measure, Arc Length, Area	p. 60 5-111 odd omit 103, 107
	Thu, Jan 25	1.4 The Trig Functions	p. 78 5-57, 83-95 odd omit 89
3	Tue, Jan 30	1.5 Right Triangle Trigonometry	p. 78 63-81, p. 89 7-37 odd
	Thu, Feb 1	1.6 Fundamental Identities and Reference Angles	p. 102 3-53 odd
4	Tue, Feb 6	1.3 Angular and Linear Velocity	p. 68 5-43 odd & 47
	Thu, Feb 8	Review	
5	<b>Tue, Feb 13</b>	<b>Exam 1 (15%)</b>	
	Thu, Feb 15	3.1 Basic Identities	p. 167 1-73 odd
6	Tue, Feb 20	3.2 Verifying Identities	p. 175 5-73 odd
	Thu, Feb 22	3.2 Verifying Identities	worksheet
7	Tue, Feb 27	3.3 Sum/Difference Identities for Cosine	p. 182 5-89 odd, worksheet
	Thu, Mar 1	3.4 Sum/Difference Identities for Sine and Tangent	p. 188 1-55 odd, worksheet
		3.5 Double and Half Angle Identities	p. 196 1-61 odd, worksheet
8	Tue, Mar 6	3.6 Product and Sum Identities	
	<b>Thu, Mar 8</b>	Review	
		<b>Exam 2 (15%)</b>	
	Tue, Mar 13	Spring Break	
	Thu, Mar 15	Spring Break	
		2.1 The Unit Circle and Graphing	p. 119 71-89 odd
9	Tue, Mar 20	2.2 Basic Sine Wave	p. 129 11-27 odd
		2.3 Graphs of Secant and Cosecant	p. 138 33-53 odd
	Thu, Mar 22	2.4 Graphs of Tangent and Cotangent	p. 146 35-51 odd
10	Tue, Mar 27	4.2 Sine, Cosine and Tangent Equations	p. 235 3-61 odd
	Thu, Mar 29	4.3 Equations Involving Compositions	p. 242 1-79 odd
11	Tue, Apr 3	4.4 Trig Equations of Quadratic Type	p. 250 1-83 odd omit 63
	Thu, Apr 5	Review	
12	<b>Tue, Apr 10</b>	<b>Exam 3 (15%)</b>	
	Thu, Apr 12	5.1 Law of Sines	p. 265 5-29 odd & 33
		5.2 Law of Cosines	p. 274 5-17 odd & 30
13	Tue, Apr 17	5.3 Area of a Triangle	p. 281 3-25 odd
	Thu, Apr 19	5.4 Vectors	p. 292 9-85 odd
14	Tue, Apr 24	5.5 Vector Applications	p. 301 1-19 odd
	Thu, Apr 26	Review	
15	<b>Tue, May 1</b>	<b>Exam 4 (15%)</b>	
	Thu, May 3	Comprehensive Review	
16	<b>Tue, May 8</b>	<b>Final Exam (20%) 10:15 - 12:15</b>	

\* This is a tentative calendar is subject to change. Any changes to the tentative calendar will be announced in class.

### Other important dates:

Feb, 5 – Last day 70% Refund

Feb, 12 – Last day 25% Refund

April 2, – Easter Holiday

April 26, – Last day to drop