Instructor Information

- Mrs. Kelsey Casteel (formerly Friesen)
- Office is FEM 1G (far corner of the Math Center)
- Office Hours: Mondays and Wednesdays 10:00-10:50 am, Tuesdays and Thursdays 8:00-8:50 am, and Fridays 11:00 – 11:50 am. If these times do not work for you, please talk with me before or after class or send me a message and we can easily find time to meet.
- The best way to get ahold of me is by sending a message through the messaging system in Canvas. You can also email me @ kelsey.friesen@reedleycollege.edu. When sending an email, use only your scccd email and include your full name and which class you are in. You can also call my office phone at 559-638-0300 x 3799.

Course Information

Welcome to Math 4A, trigonometry! Our section number is 59922. We meet in Social Science room 31 Monday through Thursday from 9:00 am – 9:50 am.

Course Description

The study of trigonometric functions, their inverses and their graphs, identities and proofs related to trigonometric expressions, trigonometric equations, solving right triangles, solving triangles using the Law of Cosines and the Law of Sines, polar coordinates, and introduction to vectors.
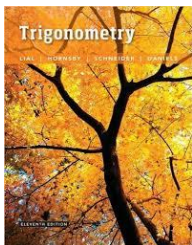
- Advisories: Eligibility for English 125 and 126, or English 128 and 130, or English 132
- Prerequisite(s): Math-103 or equivalent
- Credits: 4

Course Materials

Required: MyLab Access. This will give you access to all assignments and an electronic copy of the full textbook. You can use a free temporary 14 day access at first if you wish. You find this option when you are setting up your MyLab account **through Canvas (you will not set up your account through the external Pearson website. You will access it by clicking on the MyLab and Mastering Link on the left side of our Canvas page.)** The cheapest purchasing option is to use a credit or debit card through the website. You also can purchase a code in the bookstore, but that will be a bit more expensive.

Required: Calculator, needs to be at least scientific. You need to bring your calculator to class every day. Please check a model with me before you buy if that makes you more comfortable.

Optional: A hard copy of the textbook. This is NOT required for the class. Your MyLab access comes with this book. We are using *Trigonometry* 11th edition by Lial, Hornsby, Schneider, and Daniels. Publisher is Pearson, copyright year 2017.

Student Learning Outcomes

Upon completion of this course, students will be able to:

- Provide and analyze graphs of trigonometric functions.
- Apply trigonometric techniques to solve problems in real world contexts.
- Derive, use and prove trigonometric properties and identities.
- Produce solutions to equations using skills developed in trigonometry.

Course Objectives

In the process of completing this course, students will:

- Identify special triangles and their related angle and side measures;
- Evaluate the trigonometric function of an angle in degree and radian measure;
- Manipulate and simplify a trigonometric expression;
- Solve trigonometric equations, triangles, and applications;
- Graph the basic trigonometric functions and apply changes in period, phase and amplitude to generate new graphs;
- Evaluate and graph inverse trigonometric functions;
- Prove trigonometric identities;
- Convert between polar and rectangular coordinates and equations;
- Graph polar equations;
- Calculate powers and roots of complex numbers using DeMoivre's Theorem; and
- Represent a vector (a quantity with magnitude and direction) in the form and ai+bj.

Lecture Content

- Rectangular coordinates, angles and circular/radian measure;
- Definitions of the six trigonometric functions according to the right triangle, the unit circle, and the rectangular coordinate system;
- Applications of the right triangle;
- Simplification of trigonometric expressions;
- Proofs of trigonometric identities;

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- Applications of the right triangle;
- Simplification of trigonometric expressions;
- Proofs of trigonometric identities;

- Graphs of trigonometric functions: period, amplitude, phase shift, asymptotes;

- Inverse trigonometric functions and their graphs;

- Trigonometric equations;

- Solving Triangles: Law of Sines and Law of Cosines;

- Polar coordinates and equations; and

- DeMoivre's Theorem and applications

- Introduction to vectors.

Grading

You can see your assignment grades and overall class grade anytime in Canvas. Your overall class percentage is broken down as follows:

- Homework Assignments / In Class Work 30%

- Regular Exams and Final Exam 70%

Example of class grade calculation: Let's say you have an 85% grade in homework / in class assignments and a 76% grade in exams. Then your overall class percentage would be

$$.30*85 +.70*76 =25.5+53.2=78.7$$

You would have a 78.7% as your overall class grade, and would thus have a C in the class. See the below grade distribution.

89.5 - 100% A

79.5 - 89.4% B

69.5 - 79.4% C

59.5 - 69.4% D

0 - 59.4% F

Homework

Most of the homework assignments will be done through the online Pearson program called MyLab. Since they are online, you are still expected to turn the homework in by the due date even if you aren't in class. Once we complete a section, an assignment will be created. Any assignments created during a week will be due the following Wednesday evening at 11:59 pm. For example, any homework assigned during the week of January 14-17 would be due by Wednesday January 23rd at 11:59 pm. You will have unlimited time and attempts for all questions in every assignment. At the beginning of class each day students will have a chance to ask questions on problems they have been working on, so take advantage and try to start the problems the day they are given so you have the opportunity to ask questions. MyLab has many great resources, such as show me an example and help me solve this. Take advantage of these great tools!

Late Homework Policy: Once the due date and time have passed an assignment is considered late. You can work on all late assignments and earn 60% of the credit (which is much better than a zero!) until the final exam at the end of the semester.

Extra Credit

There will be a few extra credit opportunities, so take advantage of them! Extra credit opportunities will be made clear and available to everyone in the class. To be fair, no individual extra credit assignments will be given (so don't count on that at the end of the semester).

In Class Assignments

In addition to homework, you will have occasional in class assignments. Sometimes these will be done individually and other times in groups. If you are absent when we have an in class assignment, it is your responsibility to speak with me or check Canvas so that you can make it up.

Exams

There will be 3 free response exams – Exam 1 on chapters 1 and 2, Exam 2 on chapters 3 and 4, and Exam 3 on chapters 5 and 6. Content covered from chapters 7 and 8 will be assessed on the final exam, so we won't have a separate exam on those two chapters. Each question will be graded on work shown and correctness - partial credit is possible on most questions. All exams will have equal weight in your overall class grade percentage. If you know you won't be able to make it to class when we have an exam, please let me know and we will arrange a time for you to take it in the math center.

Final Exam

There will be a mandatory final exam at the end of the semester. It will be cumulative (meaning on all material covered throughout the class) and free response, with partial credit available as with the regular exams. If a student misses an exam during the semester, then the final exam score will go in for that grade. If a student has not missed any exams, then the final exam will go in for the lowest exam given the final score is higher. **The final exam for this class will take place on Monday May 20th from 9:00 am to 10:50 am.**

Technology

As a student of SCCCD, you are given a free student email account. Make sure you are able to login to this account and check it on a regular basis (at least once a day). You can also set it up through your smart phone if you have one and set up email alerts so that you never miss anything important. For example - you wouldn't want to come to campus when your class has been canceled. Your student email is the official way your instructors communicate with you outside of class. In addition to your email account, you also have a Canvas account set up by the college. Everything that has to do with our course will be on our Canvas page, so make sure you have access and sign in on a regular basis.

Resources

- Your instructor
- Your fellow students
- Your textbook
- FREE tutoring in the Math Center located in FEM 1. Hours are Monday-Thursday 8 am to 4 pm and Fridays 8 am to 12 pm.
- FREE tutoring in the Learning Center (aka tutorial center) located in the library.

- Online resources: Khan Academy, YouTube, any other websites you find that are helpful (please share with the rest of the class).

College Policies

Accommodations for Students with Disabilities

If you have a verified need for an academic accommodation or materials in alternate media (ie: Braille, large print, electronic text, etc.) per the American With Disabilities Act or Section 504 of the Rehabilitation act please contact me as soon as possible.

Academic Dishonesty

``Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences" (Reedley College Catalog pg 49).

Cheating

``Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's

permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely" (Reedley College Catalog pg 49).

Disruptive Students

Disruptions will not be tolerated. It is my goal to provide the most comfortable and welcoming environment in our class. Cell phones are only allowed in class when taking a picture of something on the board, researching a topic in class, or using them for activities during class (such as Kahoot!). ``Reedley College's Student Code of Conduct Policy (Board Policy 5520 and Educational Code 76032) authorizes an instructor to remove a disruptive student from his or her class for the day of the removal and the next class meeting. The instructor shall immediately report the removal to the Vice President of Student Services. During the period of removal, a student shall not be returned to the class from which he or she was removed without the concurrence of the instructor of the class" (Reedley College Catalog pg 49).

Student Rights

``Student rights are protected by federal and state laws, and by policies established by the trustees of the State Center Community College District. It is therefore essential for the protection of students' rights that procedures be established and followed which would identify violations of student conduct standards and the resolutions of such violations. Students have a right to an oral or written notice (reasons for disciplinary action), an opportunity for a review, and a decision given orally or in writing. For more information contact the

Vice President of Student Services' office. (Board Policy 5520, Administrative Regulation 5520)" (Reedley College Catalog pg 49).

Drop Policies

Student Drops: If you wish to drop the course, it is your responsibility to do so in Webadvisor. Please see the important dates below to know when you can drop.

Instructor Drops: You will be dropped from the course if any of the following occur:

- Missing four days of class within the first three weeks of the semester, so between January 14th and January 31st.
- Not having full, paid access to MyLab by 11:59 pm on Wednesday January 30th.
- Missing eight days of class within the first nine weeks of the semester, so between January 14th and March 14th.

Important Dates

- Monday January 14th : Start of the semester
- Monday January 21st : Martin Luther King, Jr. Day observed (no classes, campus closed)
- Friday January 25th : Last day to drop a full term (18 week) course for a full refund
- Sunday February 3rd : Last day to drop the class and NOT receive a W (withdraw). It is as if you were never in the class.
- Friday February 15th: Lincoln Day observance (no classes held, campus closed)
- Monday February 18th : Washington Day observance (no classes held, campus closed)
- Friday March 15th: Last day to drop a full term class (letter grades assigned after this date)
- April 15-18: Spring recess (no classes, campus open)
- Friday April 19th: Good Friday observance (no classes, campus closed)
- May 20-24: Final exam week. **Our final is Monday May 20th from 9:00 am to 10:50 am in our normal room**

*** This syllabus is subject to change at the discretion of the instructor.