



MATH 4A: TRIGONOMETRY  
SPRING 2022

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### Instructor Information

- Mrs. Kelsey Casteel
- When you need to get in contact with me, please message me through the Canvas messaging system. When you are in Canvas click on the “inbox” tab on the main left hand side menu. If Canvas is down (fingers crossed that never happens), then please email me @ [kelsey.casteel@reedleycollege.edu](mailto:kelsey.casteel@reedleycollege.edu)
- Campus office hours: Mondays and Wednesdays from 11:30 am to 12:20 pm in the Math and Science Building (where the Math Center is) office 133. I am also available to meet online via Zoom. If you would like to schedule a zoom session with me, please send me a message through Canvas and we will schedule it and I will send you the meeting information.

### Course Information

Welcome to Math 4A, Trigonometry! Our course section number is 53249. This is a 100% online class, which means you will NEVER be required to come to campus. There are also NO required zoom meetings. You need to be determined to stay on top of deadlines and make time in your schedule for this class. You can work ahead as much as you like. This class begins Monday January 10th and ends Friday May 20th . THIS COURSE DOES NOT REQUIRE THE PURCHASE OF ANY TEXTBOOK OR TECHNOLOGY – you are welcome 😊

### Course Description

Trigonometry is the study of trigonometric functions, their inverses, and their graphs. Topics include 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 an introduction to vectors.

- Advisories: English 1A or English 1AH
- Prerequisite(s): Mathematics 103 or equivalent
- Credits: 4

### Course Materials

- The majority of assignments and exams are through an online platform called MyOpenMath, which is completely FREE to you! You won't need to make an account or sign up for anything – you have access through Canvas.
- Scientific Calculator - there are several hand-held models that are great, but I recommend using the Desmos scientific/graphing calculator (completely FREE!) <https://www.desmos.com/>. From the home page you click on Math Tools at the top and can use the scientific calculator or the graphing calculator.

If you have a smartphone, you can also download the desmos app for free. If you want to check on a handheld model before making a purchase, please send me a message.

- The textbook used for this course is a completely FREE textbook that I have customized. It is based on the OpenStax book *Algebra and Trigonometry*. The textbook is integrated into the modules in Canvas and there is also a link that will take you to the full textbook.

### 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  $a_i + b_j$ .

### Grading

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

- Exams (including mandatory cumulative final exam): 50%
- Assignments: 30%
- Quizzes: 10%
- Discussions: 10%

How does this actually work? Say that at the end of the class you have the following percentages in each category: 82% in exams, 70% in assignments, 85% in quizzes, and 90% in discussions. Your overall class percentage is calculated as follows:

$$.50*82 + .30*70 + .10*85 + .10*90 = 79.5\%$$

Letter grades given according to the following intervals:

89.5 - 100% A

79.5 - 89.4% B

69.5 - 79.4% C

59.5 - 69.4% D

0 - 59.4% F

### Assignments/Quizzes/Discussions

Assignments and quizzes are set up through MyOpenMath with direct access through Canvas (you will NOT need to set up any sort of account outside of Canvas). In assignments, you will have unlimited time on each question and can reset the problem as many times as you need. The quizzes are timed with only one attempt per question. You can retake the quizzes as many times as you like and your best score will be saved. Discussions are posted using the discussion feature in Canvas. You will see all assignments, quizzes, and discussions organized in the modules.

### Extra Credit

There are no extra credit opportunities available for this class.

### Exams

This course is broken into four units. Each unit will have quizzes and one exam. The exams will be in the same format as the quizzes BUT you only have ONE attempt at each exam. \*\*If you have testing accommodations through the DSP&S office, please talk with me as soon as possible.

### Final Exam

There will be a **mandatory** cumulative final exam at the end of the class. It will contain questions from throughout the semester.

### Late Work

**Any assignment, quiz, discussion, or exam completed after the due date will earn 70% of the credit.** As an example, if a discussion is worth 10 points and you respond late, you can earn up to 7 points. To work on a section assignment or exam late, you will need to click on "use latepass". You should be able to access a late assignment using a late pass as many times as you need to. Be sure you know if you are just reviewing an assignment or using a late pass to improve your score.

## Technology

As a student of SCCC, 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. 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 for our course will be available in the Canvas shell.

Access to reliable internet is **mandatory** for success in this class. If you do not have access to the internet from home, you need to figure out places you can go to work. ***Not having access to the internet is not an excuse for incomplete work.***

## Drop Policies

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

- Not responding to the "Introduce Yourself" discussion post by Wednesday January 12<sup>th</sup>
- Not completing the syllabus quiz by Wednesday January 12<sup>th</sup>
- Falling two weeks behind

If you desire to drop the course, you can do so through Webadvisor. See the important dates section for more information on the drop dates.

## 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).

### 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).

### Important Dates

- Monday January 10<sup>th</sup> – first day of class
- Wednesday January 11<sup>th</sup> – must complete introduce yourself discussion and syllabus quiz to stay enrolled in the class
- Monday January 17<sup>th</sup> – Martin Luther King, Jr. Day observed, no classes, campus closed
- Friday January 21<sup>st</sup> – last day to drop a full-term class for a full refund
- Sunday January 30<sup>th</sup> – Last day to drop the class to avoid a "W" (withdrawal)
- Friday February 18<sup>th</sup> – Lincoln Day observed, no classes, campus closed
- Monday February 21<sup>st</sup> – Washington Day observed, no classes, campus closed
- Friday March 11<sup>th</sup> – Last day to drop the course to receive a "W" instead of a letter grade (you are dedicated to a letter grade if still enrolled after this date)
- April 11 – 15 – Spring Break, no classes, campus is open Monday through Friday
- Friday May 20<sup>th</sup> – Last day of class!

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