Syllabus for Math 25 - Trigonometry

Course Information

Semester & Year: Spring 2020
Course ID & Section #: Math25 E7508-2020S (047508)
Instructor's name: Dr. Trevor Keiber
Day/Time Monday and Wednesday / 6:05 – 8:10 PM
Location: Eureka Campus / Science Building / Room # SC204
Number of units: 4

Instructor Contact Information

CR Eureka Campus: Math Lab (located at the learning center in the library)
Office hours:
Monday 4:45-5:45 pm
Tuesday 4:45-5:45 pm
Math Lab Hours:
Wednesday 5:00-5:50 pm
Thursday 5:00-5:30 pm
Email address: Trevor-Keiber@Redwoods.edu

Required Materials

Textbook title: Algebra and Trigonometry
Edition: 7th edition
Author: Michael Sullivan
ISBN: 0131430734
Other requirements: Regular access to a computer with an internet connection is essential.
Recommended: A graphing calculator (TI-83 or TI-84)

Catalog Description

A study of trigonometric functions, radian measure, solution of right triangles, graphs of the trigonometric functions, inverse trigonometric functions, trigonometric identities and equations, laws of sines and cosines, solution of oblique triangles, polar coordinates, complex numbers in trigonometric form, De Moivre's theorem, and conic sections.

Course Student Learning Outcomes *(from course outline of record)*

1. Analyze and solve problems involving trigonometric functions or analytic geometry.
2. Apply the mathematics of trigonometric functions and analytic geometry to real-world problems and applications.
3. Use graphing technology to visualize trigonometric and polar curves, explore mathematical concepts, and verify results.
4. Write solutions to mathematical exercises in trigonometry and analytic geometry using sound mathematical reasoning with appropriate use of numerical, graphical, and symbolic representations.

Prerequisites/co-requisites/ recommended preparation

Math 120 (or equivalent) with a grade of "C" or better or appropriate score on the math placement exam.
Prerequisites Skills:
Ability to solve linear, quadratic, absolute value, polynomial, rational, radical, exponential and logarithmic equations analytically, graphically, numerically and verbally in real-world settings. Ability to use technology (Graphing Calculator, Computer Graphing Software) in the study of these functions.

Class participation and Attendance policy

It is essential to our class that both the students and teacher behave in a manner that will provide a comfortable learning atmosphere. You should not hesitate to ask questions nor feel embarrassed to ask for help Participation for each lecture is earned by attending the lecture and participating in the daily activity which could be a group project, worksheet, game, or mini-quiz. Please try to turn in assignments in the day they are due so that you do not "fall behind

Evaluation & Grading Policy

The course is divided into four modules, two before spring break and two after. At the end of each module there will be an exam, and at the end of the second and fourth module there will be a project involving applications using what we have learned in Trig. The points for this class are not weighted, this will be the approximate point breakdown:

Homework (230 points)

You may expect that a different homework assignment will be assigned after every lecture. It is imperative to your success in this course to dedicate time to completing the homework assignments. It is more important to me that you learn by doing all the assigned problems, rather than turning in uncompleted work. I will accept work after the deadline, but it will incur a 10% to 50% point deduction depending how late it is.

Participation (60 points)

Participation for each lecture is earned by attending the lecture and participating in the daily activity which could be a group project, worksheet, game, or mini-quiz. If you need to miss class because you are sick, traveling, an emergency, etc. please notify me via canvas. Missing more than 15 percent of the lectures (approximately 4-5 total) without prior reason or notification, could result in being dropped from the course according to CR's guidelines.

Projects (30 Points)

There will be two projects for the course based on applications of topics we are learning. Each project is worth 15 points there may be an opportunity to present to the class for extra credit.

Exams (90 points)

There will be 3 exams each worth approximately 10% of your grade.

Final Exam (30 points)

The Final is cumulative. We will spend a class session preparing for it.

Letter grades are assigned based on the following criteria

A 100-92% , A- 91-88% , B+ 87-86% , B 80-85% , B- 78-79% , C+75-77% , C 67-74% , D/F 0-66%

Student feedback policy

Graded Work

Homework and Exam scores will be visible on Canvas after they have been graded. Your graded work will be returned to you at the beginning of class - no more than a week after it was submitted - or before any Quizzes or EXAMS. Quiz and EXAM scores will be returned to you after no more than 10 days.

Correspondence

I will respond within 24 hours to emails or messages on Canvas Monday through Thursday. I will try to respond within 48 hours to emails on Friday, weekends and holidays.

Class Time

Class time is for issues that concern the entire class. It is not the time to discuss your grade, homework questions, or other personal matters. Send me an email, or come by my office during office hours to discuss these types of issues.

Course schedule

This schedule includes the tentative dates, assignments, and topics for each of the class meetings

Week	Date	Topic	Text Chapters	Assignments/Due Dates	Unit	Assignments
1	1/20	Algebra Review	NA	Algebraic functions, graphs, rational expressions and power laws	1	HW01
2	1/27	Angles and Triangles	6.1,6.2	Angles. Right Triangles, Geometry	1	HW02,HW03
3	2/3	Trig Functions I	6.3,6.4,6.5	Evaluating Trig Functions, Unit Circle	1	HW04,HW05
4	2/10	Trig Functions II	6.6,6.7,6.8	Graphs of Trig Functions, Phase Shifts	1	HW06, Exam1
5	2/17	Inverse Trig Functions	7.1,7.2	Inverse Trig Functions with Graphs	2	HW07
6	2/24	Trig Identities I	7.3,7.4,7.5	Trig Equations, Sum and Difference,	2	HW08,HW09
7	3/2	Trig Identities II	7.6,7.7	Double Angle, Half Angle, Product to Sum	2	HW10, HW11
8	3/9	Applications I	8.1,8.5	Right Triangles, Waves, Pendulum, etc	2	HW12, Project1
	3/16	Spring break				Take Home Exam2
9	3/23	Trig Identities III	8.2,8.3,8.4	Law of Cosines, Law of Sines, Area	3	HW13,HW14
10	3/30	Polar Coordinates	9.1,9.2,9.3	Polar Equations, De Moivre's Theorem	3	HW15,HW16
11	4/6	Vectors	9.4,9.5	Vectors, Dot Product, Applications	3	HW17, Exam 3
12	4/13	Conics I	10.1,10.2 ,10.3	Conics, Parabola, Ellipse	4	HW18, HW19,
13	4/20	Conics II	10.4,10.5	Hyperbola, Rotation of Axes	4	HW20,HW21
14	4/27	Parametric Equations	10.6,10.7	Plane Curves, Parametric Equations,	4	HW22,HW23
15	5/4	Applications II	NA	Special Topics	4	Project2
	5/11	Finals Week				Final

Canvas Information

The canvas page will be updated regularly and will contain a variety of items such as: course announcements, class documents, assignments, review resources and much more. You will be expected to check canvas regularly and be aware of announcements. Be sure to turn on your notifications if you'd like to be notified about things like new announcements, changes to assignments and due dates.

Log into Canvas at https://redwoods.instructure.com

Password is your 6 digit birth date

For tech help, email its@redwoods.edu or call 707-476-4160'

Technology skills, requirements, and support

Students can obtain a free Office 365 license (includes Word, Excel, PowerPoint and more) with a valid CR email.

Before contacting Technical Support please visit the Online Support Page. For password issues with Canvas, Web Advisor or your mycr.redwoods.edu email, contact its@redwoods.edu or call 707-476-4160 or 800-641-0400 ext. 4160 between 8:00 A.M. and 4:00 P.M., Monday through Friday.

Institutional Policies

Student Accessibility Statement and Academic Support Information

Students will have access to this course that complies with the Americans with Disabilities Act of 1990 (ADA), Section 508 of the Rehabilitation Act of 1973, and College of the Redwoods policies. Course materials will include a text equivalent for all non-text elements; videos will include closed captioning, images will include alt-tags, hyperlinks will use descriptive/meaningful phrases instead of URLs and audio files will include transcripts. All text will be formatted for use with screen readers and all course materials will be understandable without the use of color.

Special accommodations statement

College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability-related services and accommodations, please see me or contact Disability Services and Programs for Students. Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1st floor

Academic dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Disruptive behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Admissions deadlines & enrollment policies

Fall 2019 Dates

- *Classes begin: 1/18/20*
- *Martin Luther King Jr. Day (all-college holiday): 1/20/20*
- *Last day to add a class: 1/24/20*
- *Last day to drop without a W and receive a refund: 1/31/20*
- *Census date: 2/3/20 or 20% into class duration*
- *Lincoln's Birthday (no classes): 2/14/20*

- *President's Day (all-college holiday): 2/17/20*
- *Last day to petition to graduate or apply for certificate: 2/14/20*
- *Spring break (no classes): 3/16/20-3/21/20*
- *Last day for student-initiated W (no refund): 4/3/20*
- *Last day for faculty initiated W (no refund): 4/3/20*
- *Final examinations: 5/9/20-5/15/20*
- *Semester ends: 5/15/20*
- *Grades available for transcript release: approximately 6/1/20*

Gender-Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is gender-inclusive and non-sexist to affirm and respect how people describe, express, and experience their gender. Just as sexist language excludes women's experiences, non-gender-inclusive language excludes the experiences of individuals whose identities may not fit the gender binary, and/or who may not identify with the sex they were assigned at birth. Gender-inclusive/non-sexist language acknowledges people of any gender (for example, first year student versus freshman, humankind versus mankind, etc.), affirms non-binary gender identifications, and recognizes the difference between biological sex and gender expression.
Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact Admissions & Records to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. It does not change your legal name in our records. See the Student Information Update form.

Student Support Services

The following online resources are available to support your success as a student:

- CR-Online (Comprehensive information for online students)
- Library Articles & Databases
- Canvas help and tutorials
- Online Student Handbook

Counseling and Advising offers academic support and includes academic advising and educational planning

Learning Resource Center includes the following resources for students

- Academic Support Center for instructional support, tutoring, learning resources, and proctored exams.
- Library Services to promote information literacy and provide organized information resources.
- Multicultural & Diversity Center [waiting for hyperlink and Mission]
- Math Lab & Drop-in Writing Center

Special programs are also available for eligible students include

- Extended Opportunity Programs & Services (EOPS) provides financial assistance, support and encouragement for eligible income disadvantaged students at all CR locations.
- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in Eureka or in Del Norte
- The Veteran's Resource Center supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

- The Honors Program helps students succeed in transferring to a competitive four-year school.

Emergency procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor https://webadvisor.redwoods.edu and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions. For more information see the Redwoods Public Safety Page.

In an emergency that requires an evacuation of the building anywhere in the District:

- Be aware of all marked exits from your area and building
- Once outside, move to the nearest evacuation point outside your building
- Keep streets and walkways clear for emergency vehicles and personnel

Do not leave campus, unless it has been deemed safe by the campus authorities.