Syllabus for Math 25: College Trigonometry	
Semester & Year:	Fall 2015
Course ID and Section Number:	MATH-25-D8476
Number of Credits/Units:	4
Day/Time: **Location:**	Monday, Tuesday, Wednesday 6:55-8:10 DM 15
Instructor's Name:	Heinz Falenski
Contact Information:	T, Th 4:15-5:15; W 8:30-11:30, DC-1, By Appointment Email: heinz-falenski@redwoods.edu

Course Description (catalog description as described in course outline):
A course in which functions are investigated graphically, numerically, symbolically and verbally in real-world settings. Linear, quadratic, polynomial, rational, radical, exponential, and logarithmic equations and functions are explored. Technology is integrated into all aspects of the course.

Student Learning Outcomes (as described in course outline):

1. Read, write, and speak accurately about mathematical ideas and use correct mathematical notation.
2. Use graphing technology to visualize trigonometric curves, explore mathematical concepts, and verify their work.
3. Use the theories of trigonometric functions and conic sections as fundamental problem-solving tools.
4. Demonstrate the characteristics of an effective learner, such as note-taking, critical reading, communication through writing, verbal discussions, etc.
5. Apply the mathematics of trigonometric functions to real-world problems and applications.
6. Use numerical, graphical, symbolic, and verbal representations to solve problems and communicate with others.

Special accommodations: 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 may need accommodations, please see me or contact Disabled Students Programs and Services. Students may make requests for alternative media by contacting DSPS.

Mathematics Department Policy Regarding "Faculty Withdrawal" of Students after Census Day:
A student who is absent from class for the amount of time equal to two weeks of classes, will be withdrawn from the course, unless there are extenuating circumstances that are communicated to the instructor in a timely manner. This "faculty withdrawal" can occur between Week 4 and Week 10 of the semester.

Academic Misconduct: Cheating, plagiarism, collusion, abuse of resource materials, computer misuse, fabrication or falsification, multiple submissions, complicity in academic misconduct, and/ or bearing false witness will not be tolerated. Violations will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. Students caught plagiarizing or cheating on exams will receive an "F" in the course.
The student code of conduct is available on the College of the Redwoods website at:
http://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf

College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.

MATHEMATICS 25: College Trigonometry, Fall 2015

Instructor: Heinz Falenski
Office Hours: In Math Lab, TTH 04:15pm-05:15pm and W 08:30am - 11:30am in DC-1, By Appointment
Email: heinz-falenski@redwoods.edu
TEXTBOOK: *Algebra and Trigonometry* (9th edition), by Sullivan, published by Prentice Hall. The 8th edition and 7th edition is also acceptable. We will be working from chapters 7-11 of the textbook. This is the same text that will be used in College Algebra. There are ancillary supplements that may be helpful to you: *Student Solutions Manual* for the 9th edition, 8th edition, 7th edition. A PDF version of Sullivan *Algebra and Trigonometry* 9th edition can be downloaded from:
http://home.ufam.edu.br/andersonlfc/Nivelamento_Matemática/Algebra%20&%20Trigonometry%20-%20Sullivan/Sullivan%20Algebra%20&%20Trigonometry%209th%20txtbk.pdf
or google Sullivan Algebra and Trigonometry 9th edition PDF (It should be the second listed item).

TOPICS: 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.

STUDENT LEARNING OUTCOMES: Upon completion of this course, students will be able to accomplish the following:

1. Read, write, and speak accurately about mathematical ideas and use correct mathematical notation.
2. Use graphing technology to visualize trigonometric curves, explore mathematical concepts, and verify their work.
3. Use the theories of trigonometric functions and conic sections as fundamental problem-solving tools.
4. Demonstrate the characteristics of an effective learner, such as note-taking, critical reading, communication through writing, verbal discussions, etc.
5. Apply the mathematics of trigonometric functions to real-world problems and applications.
6. Use numerical, graphical, symbolic, and verbal representations to solve problems and communicate with others.

EXPECTATIONS: I expect that everyone is treated with respect in our class. Please go out of your way to be considerate of others since this will enhance the quality of the learning environment in our classroom. I expect that you use cell phones and computers appropriately and in a manner that does not disturb any fellow students or the instructor; this implies that at the very least there should not be any sound coming from your cell phone and you only utilize applications that have course content related material. Additionally, you should be on time to class and avoid leaving early in order to minimize disruption. The Student Code of Conduct addresses many issues that arise on a college campus and you should be aware of the agreement that you have made as an enrolled student.

MATERIALS: Besides the mentioned text, you will need to obtain the following for this class:

a) A TI-83+ or TI-84.
b) Graph paper (available online for printing).
c) A notebook/reference book (composition or spiral bound) to keep summary notes.
d) Lots of pencils and an eraser.

GRADE SYSTEM: Your final grade will be determined as follows

Written Homework	12.5%
Online Homework	12.5%
Participation	5%
Exam	25%
Quizzes/Activities	20%
Final Exam	25%

The plus/minus grade system will be utilized.

A	93-100%	B	83-86.9%	C	70-76.9%
A-	90-92.9%	B-	80-82.9%	D	60-69.9%
B+	87-89.9%	C+	77-79.9%	F	0-59.9%

HOMEWORK: Homework will be a regular aspect of this class, and I expect that it will be done in an organized, neat and readable fashion. The quality of your homework presentation is important to me since it representative of your understanding of coursework. Your lowest homework score will be dropped and I will accept one late homework assignment one time. See **Guidelines for Homework Assignments (below)** and make sure you label and staple your homework correctly. Generally, students that don't have most of their homework assignments turned in don't typically pass the class.

EXAMS: There are two closed book exams that will occur on **on dates to be announced**. The exams are held during the class hours published in the schedule of classes. Please be aware that regardless of the time you begin the exam, the deadline is at the end of the scheduled class time. If you are using the test proctoring services located in DSP&S, be advised that you must schedule a time that overlaps with the published course time of the class in which you are enrolled. You must schedule a time in the DRC and report it to me at least 24 hours before the published exam time. If you fail to attend the exam time or the exam time that you have scheduled then you forfeit your opportunity to take the exam.

QUIZZES/ACTIVITIES: There will be approximately one quiz each week. The quizzes will be similar to the homework problems. At least one quiz will be dropped but make-up quizzes will not be available.

FINAL EXAM: The course material is separated into two main sections: trigonometry and analytical geometry. Thus, there will be a final exam on **Wednesday, December 9**. The final exam may consist of at least one part that is closed book/notes and without the use of the calculator. I will give further information that clearly explains the scope of the exam.

ATTENDANCE: To succeed in a mathematics class you need to attend every class meeting. The CR Catalog defines four absences as excessive for a four unit class. If you have to miss class, make prior arrangements with a fellow student to get any notes or materials covered that day. You are responsible for the all material covered even if you don't attend class. I will remind you again that it is a great idea to get a study partner. The Math Department policy is attached on this document.

PARTICIPATION: The participation grade is positively affected by your involvement in the class, attendance, punctuality, and negatively affected by physical and electronic disturbances.

OFFICE HOURS: My office hours are dedicated to focusing on your needs. Take advantage of these hours to ask me questions that you have been unable to resolve with your study partners and other concerns you might have. The best use of your time is to come to the office with a clear idea of what you need from me in order to attain your immediate goal. I am often in my office, and you are welcome to ask me questions outside of office hours.

DISABILITIES: If you are a student with a disability or if you think that you could benefit from disability-related services, you may either speak to me or you may contact our Disabled Student Programs and Services Office on campus.

ACADEMIC INTEGRITY: If you cheat on an exam or quiz, then expect to fail the course, additionally the campus dean and the vice-president of instruction will be notified. All exams are closed book/notes unless otherwise stated. During exams and quizzes student cell phones will be turned off and not physically accessible, neglecting to do this may lead to forfeiting your opportunity to earn points on the assignment.

DISCLAIMER: While every attempt will be made to keep minimal changes to this document during the semester, like most other things, it is subject to change.

Important Course Dates:
First Midterm: Wednesday, September 30th
Second Midterm: Wednesday, November 4th
Final: Wednesday, December 9th

Guidelines for Written Assignments
Please follow the guidelines below for your written assignments.

1. Each assignment should be stapled and clearly labeled with your name, course number (25), instructor's name (Falenski), and assignment number. □
2. Please work problems in order down the page, and avoid using columns. You may use both sides of the page if you wish. □
3. Use pencil for your work on the problems. Write neatly and legibly.□
4. You are expected to show a reasonable amount of work and explanation. Show each step clearly (no big mystery jumps). Answers without work are not sufficient.□
5. Make a good sketch of a graph or diagram, when applicable, using graph paper. You can either do your entire assignment on graph paper, or you can tape or paste in a piece of graph paper where it is needed. Also, use a ruler to make straight lines. Indicate pertinent features (use color), and label the scale used on the axes.□
6. On application problems, be sure to write down what each variable represents.□
7. Use equal signs to show equality appropriately (in other words, between two expressions that are truly equal). Marks indicating cancellation must be correct. That is, if you read an equation *before* the marks *and after* the marks, the equation should still be true. For simplification problems, use the layout given in the following example, lining up the = signs on each line:□ $3(x+1)-5(x+2)+8 = 3x+3-5x-10+8$□ $= 3x-5x+3-10+8$□ $= -2x+1$
8. Do *not* use equal signs between items that are not really equal.□
9. When solving equations, write each equivalent equation clearly, rather than loose expressions. Each equation should be followed on a new line by a simpler equivalent equation. I also encourage you to use the "implies" symbol => between each equation, as in the following example: $2(x+3) = 7(x-2)$ □ => $2x+6 = 7x-14$□ => $2x-7x = -14-6$□ => $-5x = -20$□ => $x = 4$
10. Notation: Be careful to use correct symbols, and to make them the right size (e.g., make fraction bars and radical symbols large or long enough to include all that should be included). Use horizonal fraction bars, not diagonal fraction bars. Do *not* use mixed numbers.□
11. Use units throughout the problem when they apply.□
12. Check your answer if possible, and state your answer clearly in a manner appropriate to the context. □
13. Reflect on the problem. For example, consider whether your answer seems appropriate (not just that it is mathematically correct), and look back over your work to see what worked well or if you might have done something differently. Learn from this experience to help you do better on future problems.
14.
15. **Rewriting your assignment:** After I grade your assignment, you will have the opportunity to rewrite any problems that you missed. The rules for rewrites are:
    a. You may rewrite any incorrect problem for which you did some work (however, you can't rewrite a problem if you just skipped it the first time). You may receive full credit if the rewrite is well-written and correct.
    b. You must rewrite the *entire* problem, not just the part containing the mistake.
    c. Rewrites should be written on separate pages, not on the original assignment pages. However, you must submit the original assignment along with the rewrite (otherwise, I wouldn't know what error you made the first time or how I scored the problem).
    d. Rewrites are due at the same time as the written assignment for the next unit.□
16. Homework assignments should be kept in a separate neatly organized binder. This practice will help you when you are studying for exams.