Syllabus for: Math 25	
Semester & Year:	Fall 2012
Course ID and Section Number:	E1902
Number of Credits/Units:	4
Day/Time: **Location:**	TuTh 6:05-7:30 PS 117
Instructor's Name:	Bruce Wagner
Contact Information:	Office location and hours: PS 103, M 10:30-11:30, W 1:30-2:30 & TuTh 4:30-5:30 Phone: 707-476-4207 Email: bruce-wagner@redwoods.edu

Course Description (catalog description as described in course outline):
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 (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.

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.

Math 25: Trigonometry

Fall 2012

Eureka on-campus section E1902

Instructor: Dr. Bruce Wagner
Office: 103 Physical Science
Office hours: M 10:30-11:30, Tu 4:30-5:30, W 1:30-2:30, Th 4:30-5:30
Phone: 707-476-4207
Fax: 707-476-4424
E-mail: bruce-wagner@redwoods.edu
WWW: *http://msemac.redwoods.edu/~wagner*

Course homepage: *http://msemac.redwoods.edu/~wagner/math25*
Class Sessions for the Eureka on-campus section: TuTh 6:05-7:30 in PS 117

TOPICS: Trigonometric functions and their inverses, solving triangles, trigonometric identities and equations, graphs of trigonometric functions, polar coordinates, complex numbers in trigonometric form, and conic sections.

PREREQUISITES: Math 120 (Intermediate Algebra) with a grade of "C" or better, or satisfactory performance on the math assessment exam. Prerequisites will be enforced.

TEXTBOOK: *Algebra and Trigonometry (7th edition)*, by Sullivan, published by Prentice Hall. Chapters 6-8, part of 9, and 10 will be covered in the course. You should also purchase the corresponding *Student Solutions Manual* or *Student Study Pack*.

A limited number of 7th edition textbooks are available on loan from the library. You can also find it online at a very low price. See the **Getting Started** page on the course web site for detailed textbook information.

Alternatively, you may use either the 8th or 6th edition of the textbook. Study guidelines will be provided for the 7th, 8th, and 6th editions. If you purchase the 8th or 6th edition, then you should also purchase the corresponding *Student Solutions Manual* or *Student Study Pack*.

Do **not** purchase the 9th edition. Study Guidelines will **not** be provided for the 9th edition.

COURSE STRUCTURE: This section of Math 25 will operate as a "hybrid" course, with two class sessions every week and additional instruction provided online. In addition, most assessment will take place online.

Course Units: The course is divided into 9 units that you will have to complete consecutively. Instruction for each unit will be provided by readings from the textbook, practice problems from the textbook, and supplementary material available online. Detailed study guidelines and directions for the completion of each unit are provided on this course web site. The following three assignments are required to complete each unit:

- The **Unit Pretest** is an online assignment that you can take from home or anywhere else on the web. You can also repeat it as many times as you like.
- The **Unit Exam** is an online assignment that you must take in the presence of a designated proctor. You can also repeat it as many times as you like, but only once per day.
- The **Unit Written Assignment** is a written assignment that you must turn in to the instructor. You will be allowed to revise and correct this after it is initially graded.

Final Exams: There will also be one **Trigonometry Final Exam** after unit 6, and one **Analytic Geometry Final Exam** at the end of the course. However, this last exam is not comprehensive. Both final exams are online exams that must be taken in the presence of a designated proctor.

We have made arrangements for students to be able to take the proctored Unit Exams and Final Exams in the Academic Support Center at the Eureka campus (see the course web site for details).

There will be deadlines imposed for the completion of each unit, as well as deadlines for the two Final Exams, but in all other respects you will be able to work at your own speed. Thus, depending on your background and workload, you may be able to proceed quickly through the course.

GRADING:
There are 410 total points, as detailed below:

Unit Pretests	45 points (5 points each)
Unit Exams	180 points (20 points each)
Assessment Quizzes	10 points
Trigonometry Final Exam	100 points
Analytic Geometry Final Exam	75 points

In addition, your final grade will be affected either positively or negatively by both class attendance and participation and your work on the Unit Written Assignments, as follows:

Unit Written Assignments	-27 point penalty ---> +27 point bonus (total)
Class Attendance and Participation	-15 point penalty ---> +15 point bonus (total)

Unit Pretests and Exams will be graded on the scale given in the table on the next page. In addition, your course grade is guaranteed if you make the grade cutoffs given in the table. In other words, grade cutoffs will not be any higher, but could possibly be lower (this depends partly on the performance of the class on the two final exams).

85-100%	A
72-84%	B
60-71%	C
50-59%	D

AVAILABLE HELP: Personal help will be available from the instructor during class, office hours, and via email and fax. You are also highly encouraged to sign up for Math 52 (Math Lab). Math 52 is a lab course that offers 0.5 to 1.0 units of credit to get assistance with your math skills. If math has been a struggle for you in the past, or if you are in search of an A grade, then I strongly recommend Math 52. It has been very successful in helping students achieve their goals in mathematics. In addition, when you're not on campus, you can take advantage of the college's online tutoring service. See the **Help** page on the course web site for more information on help resources.

IS THIS COURSE FOR ME? This course may be appropriate for some students, and perhaps not for others. Students taking this course must be self-motivated and must actively seek help when needed. Because we only meet twice per week, more independent learning is involved in this course. Consequently, it is very important that you don't miss class meetings, that you come to class prepared, and that you schedule regular study times for yourself. Attendance will be taken at each class meeting.

A similar class has been taught by the instructor for the past several years, and it has worked well for students who followed the study guidelines and did not fall behind schedule. Like all courses, it is especially important that you schedule enough time to devote to the course and don't overextend yourself with other commitments. You should plan to spend at least 12 hours per week on this course, including class time.

USE OF CALCULATORS: A good graphing calculator is required. The calculator must be able to do polar and parametric plots in addition to usual plots of functions, and should be able to solve equations numerically (i.e., find intersections of curves). The TI-83+ or TI-84+ is an excellent, easy-to-use calculator that meets these requirements, and is the standard calculator that we use in other math courses at College of the Redwoods. However, if you already have another good graphing calculator that meets the above requirements, that may be used instead.

If you don't have a graphing calculator, and don't wish to purchase one, there are a limited number of calculators available for rent from the Math Department for $20 per semester.

DISABILITIES: Any student who feels that s/he may need an accommodation based on the impact of a disability should contact the instructor as soon as possible. The student will also need to visit the Disabled Student Programs and Services office (476-4280) and obtain a DSPS Support Services Agreement. Every effort will be made to meet accommodation requests. However, no retroactive accommodations will be provided.

OTHER COURSE RESOURCES:

- Mathematics Department: *http://msenux.redwoods.edu/mathdept*
- Mathematics Department Math 25 course page:
  http://msenux.redwoods.edu/mathdept/courses/math25.php
- Official CR Math 25 Course Outline:
  http://msenux.redwoods.edu/mathdept/outlines/current/math25.php