Syllabus for: Math 25	
Semester & Year:	Fall 2014
Course ID and Section Number:	E6100
Number of Credits/Units:	4
Day/Time:	MTuThF 10:05-11:10
Location:	SC 204
Instructor's Name:	Bruce Wagner
Contact Information:	Office location: SC 216K
	Office hours: MTuTh 11:10-11:30 & 12:45-1:05
	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. 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.

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: <a href="http://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf">http://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf</a>

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 2014

Eureka section E6100

Instructor: Bruce Wagner Phone: 707-476-4207 Office: Science 216K

**Email**: bruce-wagner@redwoods.edu **WWW**: http://msemac.redwoods.edu/~wagner

**Course homepage**: http://msemac.redwoods.edu/~wagner/math25

Class Sessions: MTuThF 10:05-11:10 in SC 204

**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**: Grade of C or better in Math 120 (Intermediate Algebra), or passing score on the appropriate 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. The corresponding *Student Solutions Manual* is also recommended.

Alternatively, you may use the 8th edition of the textbook with its corresponding *Student Solutions Manual*. Study guidelines will be provided for both the 7th and 8th editions.

A limited number of 7th edition textbooks are available on loan from the library. You can also find both the 7th and 8th editions online at a very low price (\$5-15). For detailed textbook information, see the department course page at

http://msenux.redwoods.edu/mathdept/courses/math25.php.

Do **not** purchase the textbook from the CR bookstore – you will pay 10 times the price at the bookstore. Also, do **not** purchase the 9th edition. Study Guidelines will **not** be provided for the 9th edition.

**COURSE STRUCTURE**: You will have a chance to ask questions about homework problems at the beginning of each class period. The remainder of the session will be for instruction, practice, and/or assessment. Homework will usually be due a couple of times each week, and there will sometimes be a quiz, class activity, or an exam. Exams and quizzes will usually be on Tuesdays or Fridays. A link to each week's schedule is provided on both the homepage and the "Detailed Schedule" page on the course web site.

**EXAMS**: There will be four midterm exams and one final exam. The final exam will be comprehensive over the entire semester. There may also be a quiz or class activity in weeks in which there is no exam. Dates for the guizzes, activities, and exams will be listed on the "Detailed Schedule" page on the course web site.

Makeup exams will only be given if there is a very good and verifiable reason for missing the exam. Notify me immediately if you cannot take an exam.

Makeup quizzes and class activities will not be given. However, I will not count the two lowest quiz/activity scores when computing your final grade.

Calculators will be allowed (and may be necessary) on most guizzes and exams. However, there may be some guizzes and portions of exams on which a calculator cannot be used.

**HOMEWORK**: There will usually be two assignments each week. In general, one assignment will be a written assignment, and the other one will be completed using OPTIMATH, our online practice and testing system (information about the online system will be provided later). The homework problems will be indicative of the type and difficulty of material that you need to know for the exams.

For the written assignments, be sure to follow the homework guidelines. After grading your written assignment, I will give you a chance to rewrite it for full credit.

Late written assignments will be accepted up through the next class period following the due date. However, a 20% penalty (of the total possible points) will be assessed in that case, and you will not be allowed to rewrite the assignment.

#### **GRADING**:

Written Homework: 80 points Online Homework: 80 points Quizzes and Class Activities: 60 points 4 Midterm Exams:

160 points (40 points each)

Final Exam: 80 points

Your course grade is guaranteed if you make the grade cutoffs given in the table below.

88-100% 77-87% В C 66-76% 55-65% D

**AVAILABLE HELP:** Personal help will be available in the Academic Support Center and from the instructor. You are also highly encouraged to sign up for Math Lab (Math 25L). Math 25L is a lab course that offers 0.5 to 1.0 units of credit to get assistance with your math skills. The lab is located in the Academic Support Center. 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 25L. It has been very successful in helping students achieve their goals in mathematics.

Alternatively, you can register for the new non-credit version of Math Lab (Math 252). This is exactly the same as Math 25L, but there are no minimum hour requirements.

See the "Help" page on the course web site for more details on help resources.

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 Mathematics Department for \$20 per semester.

**COURSE INFORMATION ON THE WEB**: Course information will be available throughout the semester on the World Wide Web. You should consult the homepage for this course (listed above) regularly for information on homework assignments, exams, etc.

**ATTENDANCE POLICY:** Any student who is absent from class for the amount of time equal to two weeks of classes through week 10 will be withdrawn from the course, unless there are extenuating circumstances that are communicated to the instructor in a timely manner. This policy conforms to Mathematics Department guidelines regarding Faculty Withdrawal of students after census day.

**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