

Syllabus for: College Algebra, Math 30

Semester & Year:	Spring 2014
Course ID and Section Number:	MATH-30-E5154-2014S College Algebra
Number of Credits/Units:	4
Day/Time: Location:	08:30AM - 09:45AM, SC Room SC204
Instructor's Name:	Michael Butler
Contact Information:	Office location and hours: SC216D, TTH 9:00-10:00, F 10:3-11:30 and by Appointment Phone: 476-4234 Email: michael-butler@redwoods.edu

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

A course covering first-degree and absolute value equations and inequalities; composite and inverse functions; polynomial, rational, exponential, and logarithmic functions; systems of equations; matrices; sequences and series; mathematical induction; binomial expansion theorem; and complex numbers.

Student Learning Outcomes (as described in course outline) :

1. Evaluate and interpret a difference quotient symbolically, numerically, and graphically.
2. Find and interpret the real and complex roots of a polynomial symbolically, numerically, and graphically.
3. Produce an accurate graph of a rational function by hand, and identify all salient features.
4. Demonstrate and interpret the inverse relationship between exponential and logarithmic functions.
5. Solve problems and applications involving exponential and logarithmic functions.
6. Solve 3x3 linear systems of equations using matrices and elimination, and interpret the nature of the solution set geometrically.
7. Recognize and solve problems involving arithmetic and geometric sequences and series.

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.

TEXTS: ALGEBRA & TRIGONOMETRY 7th or 8th edition (do not buy the 9th edition)

Author: SULLIVAN

See the textbook site for more information about obtaining a textbook: [Textbook Site](#).

OBJECTIVE: Our primary goal will be to learn more of the language called algebra. Also, we will look at how and where algebra is used in the real world. By the end of this mathematics class you will have a higher level of confidence in your ability to solve problems. Mathematics is a powerful language that transcends culture and time. It is one of the two universal languages, music being the other. So, it is my sincere hope to get you excited about learning mathematics!

MATERIALS: You will need to obtain the following for this class:

- a) A scientific calculator with a graphing package. The **TI-83+** or **TI-84** are **HIGHLY** recommended. If you are going to buy a new calculator, buy a TI-84
- b) Lots of graph paper (cheap stuff will be fine).
- c) A ruler or straight edge.
- d) A three-ring binder to keep your work in.
- e) Lots of PENCILS!

HOMEWORK: I will be assigning daily homework. It is expected that you will have it completed by the next class session. I will be collecting the homework at the next class session after it was assigned. There will usually be a handout that is part of the homework assignment. **I will not accept any late homework.** If you were not able to complete the assignment, turn in what is finished for partial credit then finish the rest assignment when time permits. If you bring the completed assignment to office hours, I will excuse the assignment from the grade calculation. You get five (5) excused assignments for the semester, use them wisely. The homework is where you get to polish your

math skills. It is not an option. **The homework is required as are the Optimath assignments!** The fundamental idea of a college course is to learn something and the homework is where much of the learning takes place.

Specifics on how homework is to be presented:

- All homework is to be done in **pencil**.
- Sloppy work will not be accepted. You need to present your work so it is readable.
- Pages need to be stapled.
- Your Name, The Section Number and the Date must appear in the header of each assignment.
- Homework must be done in a vertical format. We will be working on this in class.

Use 8 1/2 by 11 sheets of paper, staple each individual assignment separately in the upper left corner and include your full name, class name, book edition, homework number, and instructor's name in the upper right hand corner. Use only pencil and be sure all problems are neat and readable even if you must rewrite it. Begin with the original expression/equation from the book and work in a **vertical** fashion with each step performed on a separate line. Include space between problems and no more than two columns of work on a sheet of paper. Always show equality where appropriate and clearly indicate your answers. Be sure to label answers such that there is sufficient context to explain the answer; a number by itself means nothing. All graphs should be on graph paper, correctly and appropriately labeled. When in doubt, copy the format I use in class or the format presented in the textbook. I will post solutions to the assigned problems online.

The homework assignments are listed in the lecture notes (PPT). It is assumed that you have access to these files in resources on MyCR. You may ask questions about the homework in class and you can also earn extra credit homework points by answering the questions of your classmates.

QUIZZES: We will be trying to get in at least one quiz in per week. We will also be using the OPTIMATH system for almost all quizzes.

OPPORTUNITIES: I hate the name "exam" or "mid-term" for a major point gathering opportunity. You go to the doctor for an exam and midterms should occur in the middle of the semester. Instead I prefer to call these "Opportunities." That is what they are; an opportunity for you to show off what you have learned. There will be up to 3 Opportunities and they are worth 100 points each. Sample opportunities will be found on the Optimath site and in Resources on MyCR.

FINAL: The final is worth 200 points.

ATTENDANCE: To succeed in a mathematics class you need to attend every class meeting. 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. **If you miss more than 5 class sessions you may be asked to retake this class.**

Environment of Course: It is expected that everyone involved in this class, teacher and students alike, will act in a manner conducive to providing a comfortable environment for learning, a place where students feel free to ask and answer questions without fear of embarrassment or ridicule. It is important to stay on task. Hence, discussions that do not pertain to the subject at hand should be taken outside of the classroom. It is essential for student success to maintain a good environment in our classroom. If you have any difficulties with the learning environment, please visit me in my office hours or send me an email with your phone number and a time to contact you to discuss them. ***If your cell phone rings in class, or you do any form of text messaging during class, you will be required to apologize to your peers for this behavior. The method by which you apologize is to bring cookies to the next class session.***

GRADE SYSTEM: Your final grade will be determined approximately as follows

Homework

20%

Quizzes/Activities	20%
Opportunities	50%
Final Opportunity	10%

I use the plus/minus system for final grades. The grade break down is as follows.

A	93-100%	C	70-76.9%
A-	90-92.9%	D	60-70.9%
B+	87-89.9%	F	0-59.9%
B	83-86.9%		
B-	80-82.9%		
C+	77-79.9%		

TUTORS AND MATH 52: There is tutoring service available for this class. I highly recommend that you take advantage of it. The service is located in the library in the Learning Resource Center (LRC). 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 or you are in search of the A grade, I strongly recommend Math 52. It has been very successful in helping students achieve their goals in mathematics.

STUDY GROUPS: There is nothing harder in my opinion than going through a mathematics class solo. You should start now to form study groups. This class and every math class you take will require two hours of study for every hour lecture. That means you will need to put in a minimum of 10 hours per week outside the classroom. If you do not have that amount of time to schedule to this class, you may want to reconsider taking it. Find someone in the class that you can work with and schedule regular hours during the week when you can get together and study. Meeting in Math 52 is a great place to hold your study group.