Syllabus for: College Algebra, Math 30

Semester & Year:	Fall 2015
Course ID and Section Number:	Math-30-E8003
Number of Credits/Units:	4.0
Day/Time: **Location:**	MW/6:05-8:10pm LRC 105
Instructor's Name:	Kyle Falbo
Contact Information:	Office location and hours: By appointment Phone: NA Email: Kyle-Falbo@redwoods.edu

Course Description:

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.
Note: Graphing calculator required, TI-83 or TI-84 recommended.

Student Learning Outcomes:

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 accommodations document to me as promptly as possible so that necessary arrangements can 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.

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://redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20final%2002-07-2012.pdf

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 homepage.

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.

Prerequisite:

Math 120 with a grade of C or better or appropriate score on the assessment test.
Expected Skill Set: Ability to solve linear, quadratic, polynomial, rational, radical, exponential, and logarithmic equations analytically, graphically, numerically, and verbally in real-world settings. Ability to use technology in the study of these.

Text:

The required textbook for the course is Algebra and Trigonometry (7th edition), by Sullivan, published by Prentice Hall, ISBN #0131430734.

A limited number of textbooks are available on loan from the library. The textbook can also be purchased very inexpensively from various online book sellers.

Recommended: Student Solutions Manual for the 7th edition, ISBN #0131430793

Alternate version of the textbook: You can purchase the 8th edition instead (ISBN #0132329034). The 8th edition can also be purchased very inexpensively from various online book sellers.
Recommended: Student Solutions Manual for the 8th edition, ISBN #0132321246

Objective:

A course in 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 are explored. Technology is integrated into all aspects of the course.

In this course we will study:

1. A multiple-step problem-solving process.
2. The presentation of mathematical solutions in a logical and coherent structure, including the use of writing skills, grammar, and punctuation.
3. The use of the graphing calculator as a problem-solving tool.
4. The connection between graphs and properties of functions.
5. Application of concepts to real-world problems.
6. Knowledge of functions to include definitions, graphs, properties, and their application to the problem-solving process.
7. The recognition that the use of proper algebraic skills is an important tool in problem-solving situations.

Materials:

You are required to have a graphing calculator for this course. I recommend a TI-83, TI-84 or TI-89. I will be using a TI-84 in class. Calculators are available for rent from the math department for $20/semester; pay at the cashier's office and pick it up from Betsy Buchanan in the ASC. Also, check local pawn shops, Craigslist, Ebay, etc. Cell phones are not allowed to be used as your calculator.

You will need lots of graph paper, cheap stuff is fine but an Engineering Pad is encouraged.
You will need a ruler or straight edge for all lines in which you draw in the course.
You will need a binder to keep your notes and work in.
You will need lots of pencils and erasers. **No Pens Allowed.**

Classroom Environment:

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 classroom where students feel free to ask and answer questions without fear of embarrassment or ridicule. It is important to stay on task when class is in session. Hence, conversation not pertaining to the subject at hand should be taken outside the classroom. I understand that students will have to get up and leave the room for various reasons and I also understand that students will arrive late from time to time. However, courtesy requires that you enter and leave as quietly as possible, without disturbing discussion or lecture. It is essential for student success to maintain a good environment in the classroom. If you have any personal difficulties with the learning environment in the classroom, please visit me outside of class to discuss them.

Homework:

Regular practice of mathematics is the tried and true way for understanding the material. Having good mathematical penmanship will make your ability to communicate mathematics effectively that much greater. The first part of the semester we will emphasize handwritten assignments, accompanied by biweekly Optimath assignments. As the semester progresses we will transition into Optimath assignments at a greater rate with handwritten assignments submitted for each chapter. It is very important that you become familiar and comfortable with the Optimath platform immediately. The majority of your homework grade will result from submitted Optimath assignments. Late homework will not be accepted. I do understand that life happens and you may be unable to submit an assignment by it's due date. To compensate for these times I will drop the two lowest homework assignments from your grade at the end of the semester.

Quizzes/Activities:

I reserve the right to give quizzes throughout the semester on material covered in the previous week. I also intend to provide you with group activities that allow you the chance to work together with your fellow classmates on problems that are real-world in nature and would take a bit more thought and dedication than your normal homework would provide. These quiz/activities would be included in your homework score.

Exams:

There will be 3 in class exams given throughout the semester in addition to the comprehensive final exam. These exams will be closed book. At times I may ask that some portion of an exam be done without the aid of a calculator. These exams will make up the majority of your final grade so it is in your best interest that you prepare for these exams. I will provide time for in-class review before each exam. See the course schedule for dates regarding exams. No Makeup Exams Will Be Given.

Final Exam:

The day and time of the final exam for this course is **Monday, December 7th, 5:30-7:30pm**. This is a hard date. You must be at this arranged time and date in order to take the final exam. Plan your travel accordingly.

Attendance:

While attendance to this course is not required. You will find that missing any class especially in a two day a week course, it will be hard to catch up. If you miss a class you should contact one of your fellow classmates immediately to get a copy of the notes for that day, as well as to find out any important in class announcements that were made.

Grade System:

Homework:	30%
Exams (3 in-class):	45%
Final Exam:	25% of your final grade.

Tutors and Math 52:

There is tutoring services available for this class. I highly recommend that you take advantage of them. Math 52 is a lab course that offers 0.5 to 1.09 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. In addition to Math 52, free 1-on-1 tutoring is made available through the ASC.

Study Groups:

Mathematics is very much like a language. Speaking mathematics amongst your peers is one of the best ways to solidify the material in your own mind. Hearing the material explained in a voice other than your instructor can give you insight that you might miss only hearing it once. I encourage my students to form study groups. Some of my closest friendships that I have today were formed through math study groups in college. Take advantage of the opportunity to socialize while learning. It's a lot more fun that way.

Canvas:

I will primarily be using the course canvas page as a course document depository. The syllabus, study guides, and copies of any in-class projects will be posted to Canvas for additional access. If I choose to use Canvas in another capacity I will use email to let the class know.

Emergency Procedures:

Please review the campus evacuation sites, including the closest site to this classroom (posted by the exit of each room) and review www.redwoods.edu/safety.asp for information on campus Emergency Procedures.
During an evacuation:

· Be aware of all marked exits from your area and building. Know the routes from your work area to the nearest exits.
· 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 Incident Commander or campus authorities. (Be aware CR's lower parking lot and 101 frontage are within the Tsunami Zone).

RAVE - College of the Redwoods has implemented an emergency alert system. Everyone is entered already to receive a message at their CR email address. In the event of an emergency on campus, you can also elect to receive an alert through your personal email, and/or phones at your home, office, and cell. This emergency alert system will be available to all students, staff, and other interested parties.

Registration is necessary in order to receive emergency alerts. Please go to https://www.GetRave.com/login/Redwoods and use the "Register" button on the top right portion of the registration page to create an account. During the registration process you can elect to add additional information, such as office phone, home phone, cell phone, and personal email. Please use your CR email address as your primary Registration Email. Your CR email address ends with "redwoods.edu."

We will test the system each semester to be sure that you are getting alerts at all of your destinations. Please contact Public Safety, 707-476-4112, security@redwoods.edu, if you have any questions.