

<b>Syllabus for: Math 15 E2704 (032704)</b>	
<b>Semester &amp; Year:</b>	Spring 2013
<b>Course ID and Section Number:</b>	E2704 (032704)
<b>Number of Credits/Units:</b>	4
<b>Day/Time:</b>	MW 6:05-8:10
<b>Location:</b>	PS 110
<b>Instructor's Name:</b>	David Arnold
<b>Contact Information:</b>	Office location and hours: PS114A MWF 1-2pm, CCCConfer Sun, Tues, Thurs, 9-10pm Phone: 707-476-4222 Email: david-arnold@redwoods.edu
<b>Course Description (catalog description as described in course outline):</b>	
<p>The study of statistical methods as applied to descriptive statistics and inferential statistics. An emphasis on the meaning and use of statistical significance will be central to the course. Students will use frequency distributions, graphs, measures of relative standing, measures of central tendency, measures of variability, correlation, and linear regression to explore descriptive statistics. Students will use the laws of probability and statistical tests (t-tests, chi-square, ANOVA, and regression analysis) to make decisions via hypothesis testing and estimate parameters using confidence intervals.</p> <p>Special notes or advisories: Graphing calculator required, TI-83 or 84 recommended.</p>	
<b>Student Learning Outcomes (as described in course outline) :</b>	
<ol style="list-style-type: none"> <li>1. Accurately communicate statistical ideas using correct statistical notation, graphs, and vocabulary.</li> <li>2. Use descriptive and inferential statistics to solve real-world problems.</li> <li>3. Demonstrate appropriate use of technology in making decisions based upon real-world data.</li> <li>4. Read and interpret information that contains statistical analysis and be able to communicate these results.</li> <li>5. Judge the validity of research reported in the mass media and peer reviewed journals.</li> </ol>	
<b>Special accommodations:</b> 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.



# David Arnold

## Mathematics

- [Department Home Page](#)
- [myCR](#)
- [WebAdvisor](#)
- [Optimath](#)
- [David Arnold Home](#)

## Math 30: Instructor's Syllabus

### The Adobe Reader

To use the textbook and Optimath system in this course, you must have properly installed and configured the Adobe Reader on your computer. You will need to [download](#) a free copy of the Acrobat Reader to read them. Click the following icon to obtain a free copy of the Acrobat Reader.



It is important that you have the most current version of the Acrobat Reader that your system will allow. The above links will take you to the Adobe site. The Adobe site will analyze your system, but you may be asked to choose the appropriate version of the reader for your system. If this happens, carefully select the appropriate version of the reader for your system.

### Official Course Outline

The official course outline for College Algebra, including content, objectives, and student learning outcomes, can be viewed online via the following link. Please take some time to read the

[Math 30 Course Outline](#)

You'll find the following course learning outcomes on the 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.

- Solve  $3 \times 3$  linear systems of equations using matrices and elimination, and interpret the nature of the solution set geometrically.
- Recognize and solve problems involving arithmetic and geometric sequences and series.

## Prerequisite Classes

Students entering the College Algebra course are required to show proof of a C or better in an Intermediate Algebra course taken at a college. In lieu of this prerequisite, students can take an assessment test in the Academic Support Center (the ASC is in the library) to insure proper placement in the course. Students are advised to see a counselor as they can be quite helpful in placing students in a course commensurate with their ability and background in mathematics.

## Instructor's Schedule

The following link contains a copy of my schedule, including office hours.

### [Schedule and Office Hours](#)

Note: These are "official" office hours. However, I will make myself available whenever I can. Please do not be afraid to ask for help at any time as I am always eager to help.

## Office Location and Phone

- Physical Science building PS114A
- Office phone: (707) 476-4222

## Cancelled Classes

Those driving long distances to attend classes are advised to call (707) 476-4210 before driving to the CR campus. Choose #5 from a menu of choices. You will then be advised of any cancelled classes for the day in the Physical Sciences complex (math/science). Thus, you can avoid the frustration of driving to campus, only to find that your class has been cancelled.

## Email

My email address is: [David-Arnold@redwoods.edu](mailto:David-Arnold@redwoods.edu)

## myCR

Click the myCR icon that follows. This will initiate contact with myCR. After logging in, click the Account tool, then the Modify Details button. Change your password. Be sure to write down your login name and password for future reference. Once you complete your password entry, click Update Details to complete the process

Next, click the Profile2 tool and enter any information you wish to share. Don't enter things like phone numbers that you wish to keep private. Click the Save button when you are finished.

If you wish email messages to be forwarded to an email address other than your MyCR email address, click the Messages tool, then the Settings tab. Select "Yes" to Autoforward Messages, then fill in the email address

where you want email messages forwarded. Click Save Settings when finished.

Locate your math class and take some time to find out what is provided. Then read the "Welcome Message" in the Discussion Board and reply to to the "Welcome Message" thread. In the future, use the Discussion Board to discuss issues and problems you are having with your class.



## Getting Help

Help is available in many forms.

- Your instructor is always available for help in PS114A when he isn't teaching class or attending a meeting. Take advantage.
- There are two great study rooms in the Physical Sciences building where the "math geeks" hang out, PS119 and PS116. If you study in these rooms during your break, it is highly likely that there will be people in there who might kindly answer a question or two. Just remember that they have their own studies as well and don't overly monopolize their time.
- The Academic Support Center (ASC) in the library provides individual and group tutoring. You need to check in at the ASC desk and make an appointment to meet with a tutor.
- The "Mathlab" resides along the windows in the ASC. You must first go to registration (Forum Building) and register for Math 52 to make use of the mathlab. You can either register for 1/2 unit or a full unit.
  1. If you register for 1/2 unit, you must complete 22.5 hours in the mathlab. This amounts on average to 1.5 hours per week.
  2. If you register for 1 unit, you must complete 45 hours in the mathlab. This amounts on average to 3 hours per week.

After you complete the registration process at Registration, proceed to the Mathlab which is located in the Academic Support Center (ASC) of the Learning Resource Center (LRC). There will be an instructor there who will give you an information page, and a contract to sign.

Comprehensive information on the Mathlab is available at the following link:

[Information on the MathLab](#)

You can find a list of instructors who work in the Mathlab and a schedule for the hours that Mathlab is open at the following links:

[Mathlab Instructor Schedule and Hours \(Eureka\)](#)

The Mathlab is not a great place to get personal, extensive, one-on-one tutoring (you should make an appointment with an ASC tutor for that), but it is a great place to work on your homework and get quick help when you are stuck. People work on their homework, then raise their hand when stuck, and tutors come by as soon as they are available. Tutors are trained to jump around from student to student, hopefully not taking too much time with each question, so its likely that you can get quick attention as you need it.

## 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.

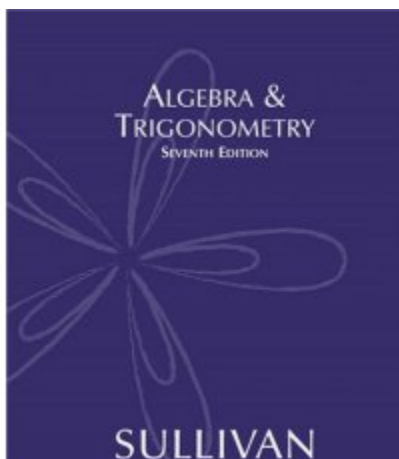
I understand that students will have to get up and leave the room for various reasons and I also understand that students will arrive late from time to time. However, courtesy requires that you enter and leave as quietly as possible, without disturbing discussion or lecture.

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 in my office to discuss them.

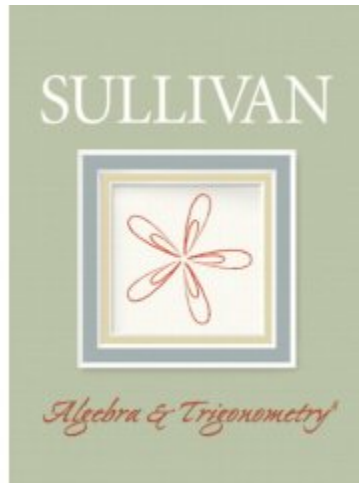
## Textbooks

The Mathematics Department continues to be concerned with the rising prices of textbooks. Students in Math 30 have several options for obtaining a textbook:

- The **CR Library** has a limited number of textbooks that can be checked out for the entire semester.
- The eighth edition is available in the CR Bookstore. However, as you will find, it's quite expensive. But this is an option for those students who need to purchase their texts from the campus bookstore.
- ISBN Information
  - Algebra and Trigonometry (7th edition), by Sullivan, published by Prentice Hall (ISBN #0131430734)



- Algebra and Trigonometry (8th edition), by Sullivan, published by Prentice Hall (ISBN #0132329034)



- Assignments will be keyed to either text, so it does not matter which one you purchase.
- Online purchase recommendations:
  - Online searches for the 7th edition. Important: When doing online searches for the text, search by the ISBN #0131430734.
    - A search of [Amazon.com](http://Amazon.com) revealed [these prices and availability](#).
    - A search of [campusbooks.com](http://campusbooks.com) found [these prices and availability](#).
    - A search of [BookFinder.com](http://BookFinder.com) revealed [these prices and availability](#).
    - A search of [half.com](http://half.com) revealed [these prices and availability](#).
  - Online searches for the 8th edition. Important: When doing online searches for the text, search by the ISBN #0132329034.
    - A search of [Amazon.com](http://Amazon.com) revealed [these prices and availability](#).
    - A search of [campusbooks.com](http://campusbooks.com) found [these prices and availability](#).
    - A search of [BookFinder.com](http://BookFinder.com) revealed [these prices and availability](#).
    - A search of [half.com](http://half.com) revealed [these prices and availability](#).

As you can see, prices for the eighth edition (which is the current edition on the market and the edition available in the CR Bookstore) are much higher than the quoted prices for the seventh edition. If you can find a good used seventh edition, that will be your best buy and will be perfectly suitable for the course. Remember, search by ISBN!

## Reading the Textbook

It is important that you read and work the examples in the textbook before attempting the exercises. Many students will work the process in reverse. That is, they begin working the exercises, then if stuck, they page back through the narrative in the text seeking a similar example to the exercise on which they are working. This is **not** a recommended approach to the study of mathematics.

## Calculators

The TI graphing calculator is required in all mathematics courses (at or above Math 380) at College of the Redwoods. If you have a TI82, it will suffice, as will a TI83, TI83+, TI84, or TI84+. However, if you plan on

purchasing a new calculator, we recommend the TI84 Plus.

I probably cannot provide help on other versions of the graphing calculator during class other than on those mentioned above. However, I am always willing to help the student outside of classtime on calculators such as Casio, HP, or high end TI's (e.g., TI89). Just stop by my office and be sure to bring the manual for your calculator.

Kevin Yokoyama has developed a calculator help tutorial. The web address is

<http://online.redwoods.edu/INSTRUCT/KIYOKOYA/TIHelp/index.htm>

Bruce Wagner also has a calculator tutorial at the following link. It's slanted towards students in Math 120, but students in Math 30 will also find it useful.

### [Graphing Calculator Help](#)

For help constructing inline formulas, see the [Optimath Syntax Checker](#) page (requires Firefox).

## **Calculator Rentals**

The Mathematics Department has a limited number of calculators that it rents to students each semester. There is a one-time, non-refundable fee of \$25. Rental instructions are available at the following link:

[Graphing Calculator Rental Program](#)

## **Examinations**

We will have two midterm examinations and a comprehensive final examination. Students should sit for all examinations on the day that they are administered. If you miss an examination, there is no guarantee that you will be allowed to make up the examination. Indeed, makeup examinations are given only at the instructor's discretion. If you know ahead of time that you have a conflict that will prevent you from sitting for an examination, please meet with me to discuss alternatives.

Students who need special arrangements for examinations are expected to meet with the instructor before **each** examination to insure that all examination materials are on file in the Academic Support Center (the ASC is in the Learning Resource Center (library)).

Every student will be required to sit for a final, cumulative examination. The time and day of this examination is posted in the Schedule of Classes and students are expected to sit for the exam at the time and on the day posted. No exceptions. Any student failing to sit for the final examination will receive an F in the class. Please keep this in mind when making travel plans for the end of the semester. Plan ahead!

## **Quizzes**

We will have frequent quizzes throughout the semester. Some you will work on at home, others will be administered during class.

## **Optimath Online Quizzes**

We will use the Online Practice and Testing in Mathematics (OPTIMATH) system to administer quizzes during



the semester. Here is the link:

<http://msenux.redwoods.edu/optimath>

We might also offer some extra credit opportunities through this system as the semester progresses.

The OPTIMATH testing system uses PDF format. You will need to [download](#) a free copy of the Adobe Reader to take the online quizzes. Click the following icon to obtain a free copy of the Adobe Reader.



It is important that you have the most current version of the Adobe Reader that your system will allow. The above links will take you to the Adobe site. The Adobe site will analyze your system, but you may be asked to choose the appropriate version of the reader for your system. If this happens, carefully select the appropriate version of the reader.

Assistance for using the online testing system can be found at the following link:

<http://msenux.redwoods.edu/online/optimathinfo.html>.

For assistance with Optimath Syntax, read [Writing Mathematical Formulas in Optimath](#), then try your hand with our new [Syntax Checker](#) (Firefox required).

For assistance in logging on to the OPTIMATH system, we have two videos, the second of which deals with names containing hyphens and apostrophes. *Note: If you have the Flash plugin loaded, clicking links in the first column of the following table should start the video up in your browser. Use the links in the second column to save the file to your hard disk, then open the saved file in Quicktime or iTunes.*

Flash format	iPod m4v format
<a href="#">Logging In</a>	<a href="#">Logging In</a>
<a href="#">Logging In (Special Names)</a>	<a href="#">Logging In (Special Names)</a>

If you are still struggling with OPTIMATH syntax, try watching these three videos. *Note: If you have the Flash plugin loaded, clicking links in the first column of the following table should start the video up in your browser. Use the links in the second column to save the file to your hard disk, then open the saved file in Quicktime or iTunes.*

Flash format	iPod m4v format
<a href="#">Interval Notation (Part 1)</a>	<a href="#">Interval Notation (Part 1)</a>

<a href="#">Interval Notation (Part 2)</a>	<a href="#">Interval Notation (Part 2)</a>
<a href="#">Interval Notation (Part 3)</a>	<a href="#">Interval Notation (Part 3)</a>
<a href="#">Rational Expressions</a>	<a href="#">Rational Expressions</a>

## Homework

Homework will be assigned daily and will be due the next class meeting. Each homework will be assigned a grade ranging from 0-10 points, based on completeness, the following of directions, and the quality of work.

It is essential that students keep up with the homework on a daily basis. Each time you come to class without your homework, you are not prepared to take part in the class at a level geared to your success. Therefore, students are encouraged to hand in homework on time. However, I am acutely aware of the responsibilities that many students have to deal with outside the classroom. Consequently, I do allow a "grace period" of one class period for late work. That is, if you hand your homework in by the next class period, I will still accept the assignment. However, there is an automatic 2-point deduction for late work. Homework later than one class period will not be accepted.

If you are experiencing difficulty getting your homework in on time, or if you know an upcoming event will interfere with getting your homework in on time, please discuss this with your instructor. We can possibly make some arrangement to help facilitate the completion of your work.

In order to facilitate the recording of homework scores, students are required to place their name in the upper right-hand corner of their homework assignment and staple the pages together with a single staple in the upper left-hand corner. On the first line of the first page of your homework, please write down the assignment number, the pages that encompass the assignment, and list each exercise number assigned. For example, the first line of your homework might read:

Assignment #12, Page 150, #1, 3, 5, 7, 8, 10, 11, 23, 45

## Attendance

Attendance will be recorded each class session. If you know you will be missing class, you should let your instructor know.

## Grades

Your homework, quizzes, and examinations will be weighted and averaged to determine your final grade in the class. A running account of your work can always be viewed in your gradebook.

## When Problems Arise

Should problems arise during the semester, always contact your instructor to let me know what's going on. That's the only way I can help.

## **The Syllabus is Subject to Change**

As your instructor, I reserve the right to make adjustments to the syllabus should things not proceed as smoothly as expected. However, in general, I do not anticipate making changes.

Last Revision: 1/5/13 | [Email Webmaster](#) | © Design by [Andreas Viklund](#)