Syllabus for: Math 50A

Semester & Year:	Fall 2013
Course ID and Section Number:	MATH-50A-E3885
Number of Credits/Units:	4
Day/Time:	MWF 6:05-7:20
Location:	SC 208
Instructor's Name:	David Arnold
Contact Information:	(707) 476-4222. David-arnold@redwoods.edu

Course Description (catalog description as described in course outline): A study of limits, continuity, and derivatives of algebraic, transcendental, and trigonometric functions. Applications of the derivative include optimization, related rates, examples from the natural and social sciences, and graphing of functions. The course introduces the integral and the connection between the integral and derivative.

- **Student Learning Outcomes (as described in course outline) :**

1. Use the theory of differential calculus as a fundamental problem-solving tool.
2. Apply the concepts of the derivative and the integral to solve real-world problems and applications.
3. Use graphing technology to visualize functions, explore mathematical concepts, and verify results in differential calculus.
4. Use sound mathematical writing and appropriate use of numerical, graphical, and symbolic representations to present solutions of mathematical exercises and applications in differential calculus.

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://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.

David Arnold

Mathematics

- Department Home Page
- myCR
- WebAdvisor
- Optimath
- David Arnold Home

Math 50A: Instructor's Syllabus

The Adobe Reader

There are files on this site in PDF format. 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.

Official Course Outline

The official course outline for Math 50A, Differential Calculus, including content, objectives, and student learning outcomes, can be viewed online via the following link:

Math 50A Course Outline

Prerequisite Classes

Math 30 and Math 25 (or the equivalent) with a grade of "C" or better, or appropriate score on assessment exam.

Instructor's Schedule

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

Schedule and Office Hours

Note that there are three one-hour office hour sessions on Sunday, Tuesday, and Thursday evenings. These will be conducted online using CCCConfer. Your instructor will share more information on taking advantage of these "special online" office hours during class.

Instructions for online office hours are here:

CCCConfer 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

- Science Building SC 216H
- 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

myCR

Click the myCR icon that follows. This will initiate contact with myCR. 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 Profile 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.

Select Math 50A link. 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.

Take some time to find out what is provided on your Math 50A page. 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 SC 216H when he isn't teaching class or attending a meeting. Take advantage.
- The Discussion Board on MyCR is a great place to post and answer questions.
- It's quite OK to email your instructor with questions.
- The Academic Support Center (ASC) on the Eureka campus 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" on the Eureka campus 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 (Math 52) and a schedule for the hours that Mathlab is open at the following link.

    Math 52 Instructor Schedule and Hours

    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 envrionment in the classroom, please visit me in my office, phone me, or drop me an email to discuss them.

Textbooks

The Mathematics Department continues to be concerned with the rising prices of textbooks. Consequently, students in Math 50A do not have to buy a text. You may check one out from the College of the Redwoods library or, if you must, you can purchase online. For more information, the following link has detailed discussion and instruction:

Obtaining a textbook for Math 50A.

Reading the Textbook

It is important that you read and work the examples in the textbook before attemping 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.

Computing Resources on the Eureka Campus

The Eureka campus houses computing facilities for its calculus students. They are located in the Science Building, room SC 212. There are a number of powerful software packages on the machines in this room that will aid in the study of calculus. See your instructor for login name and password.

Login to a Mac, double-click the Finder icon on the Dock to open the Finder and reveal several more folders: Desktop, Documents, Library, Movies, Music, Pictures, Public, and Sites.

- You should not be downloading music, movies, or pictures, so don't use those folders.
- The Library folder is used by programs. You probably won't need to use this.
- The Desktop folder is for files on the Desktop.
- Anything you put into the Public folder is just that, it's "public" and anyone can see it. This is a great way to share files with a lab and/or project partner.
- The Sites folder is your personal web page repository. Browse to http://msemac.redwoods.edu/~loginname/, where you replace loginname with your personal login. For example, I would enter http://msemac.redwoods.edu/~darnold/. You are not to use this folder for building a personal web site. Offenders of this policy will lose all computing privileges. You should only use this site to create materials specifically requested by your instructor.
- The Documents folder is where you should put all of your work. This folder is secure and the files in this folder cannot be read or written to by anyone but you. You should also:
    - Create a subfolder called math50a in your Documents folder.
    - Create a subfolder called assignments in your math50 folder.

    - Continue creating subfolders as the need arises. This will help you more easily locate your work throughout the semester.
- Computer Lab Information: A nice summary of information for our computer labs is available in the document Math Computer Labs.

Computer Lab -- Code of Conduct

Please see Computer Labs --- Code of Conduct for a set of rules and guidelines for computer use and maintaining decorum in the study rooms available in the physical sciences building.

Transferring Files to and from the Department Server

Along with your username and password, which allow you to log on to computers in the Math/Science/Engineering computer labs and print your class assignments, you are granted some file storage space on the Math department's file server, MSEMac, which allows you to save files files and access them at school as well as at home. Using the server to store and back up your class files will help ensure that you are always up-to-date on your assignments, will let you work on projects in multiple places, can guard against computer failure, and lets you transfer files from campus and back without needing a memory stick.

The process for connecting to MSEMac is different for Macs and PCs (the former is somewhat simpler). If you have a Mac, please read our guide to connecting to MSEMac for Macs, and if you have a PC, please read our guide to connecting to MSEMac for PCs.

Useful Software (It's Free!)

There are two very useful software resources that you will find invaluable in this course:

1. Open your browser then enter the URL http://www.wolframalpha.com/examples/. Explore the various links under "Mathematics," particularly Plotting and Calculus. You will find these extremely useful.
2. Go to http://www.geogebra.org/cms/en/download and download the package for your operating system. We will use Geogebra extensively in this class.

Calculators

A graphing calculator is required. A TI83 or TI84 is recommended.

One important issue is the TI89 graphing calculator and the TINspire, which does symbolic calculation, including differentiation and integration. It is my position that you should be able to both integrate and differentiate without the use of this calculator. Therefore, it is essential that you show all steps on your homework and exams when performing any differentiations or integrations in order to receive credit for your work.

It is highly likely that some exams will not allow the use of a calculator or computer.

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 (classis John Wooden quote: "*Failure to prepare is preparing to fail!*"). 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 arrangment 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 of the first page of your homework, please write down the assignement number, the pages that encompass the assignement, 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

Examinations

We will have 2 midterm examinations and a comprehensive final examination. Students should sit for both 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.

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 library).

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.

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 December. Plan ahead!

Quizzes

We will assign a number of take-home quizzes so that students can see how they are progressing.

Grades

To determine your grade in the class, points from homework, exams, quizzes, will be totaled. You can determine your current grade on a daily basis on your gradebook.

Grade Book

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 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.