

# Math Analysis with Review 1A (Math 75A)

Fall 2006

California State University, Fresno

Instructor: Travis Kelm

Email: [tkelm@csufresno.edu](mailto:tkelm@csufresno.edu)

WWW: [zimmer.csufresno.edu/~tkelm/math075a/math075a.htm](http://zimmer.csufresno.edu/~tkelm/math075a/math075a.htm)

Webwork: [webwork.csufresno.edu/webwork2/Math75A-TKelm/](http://webwork.csufresno.edu/webwork2/Math75A-TKelm/)

Office: 345 Peters

Phone: 278-4910

Office Hours: To Be Announced

## Course Description:

Differential calculus describes the methods by which, given a function, you can find its associated rate of change function, called the "derivative." We will review the algebra and trigonometry necessary to appreciate both differential calculus. We will then define the derivative and discuss techniques of computation.

**Course Goals:** Upon completion of the course students should be able to:

1. Define, manipulate, and graph any polynomial, rational, trigonometric, power, exponential, or logarithmic functions
2. Use functions to represent changing quantities
3. Compute limits of algebraic expressions
4. Define the derivative as the limit of a difference quotient and appreciate its physical significance
5. Compute the derivative of any function referred to in #1 above, and any combination of such functions
6. Identify the ways in which a function can fail to have a derivative

**Course Prerequisites:** Elementary geometry, intermediate algebra, trigonometry

## Course Materials:

- **Textbook:** *Calculus (Early Transcendentals)* by James Stewart, 5th Edition. We will cover material from Chapters 1 – 3.
- **Textbook:** *A Companion to Calculus* by Ebersole et al., 2nd Edition.

**Homework:** Not doing enough homework is the number one cause of preventable failure in a math class. It is an undeniable fact of life that if you don't do the homework you will not do well on the exams. There will be a lot of problems assigned and only by attempting them will you be able to determine whether you have completely mastered the material. If you find that you do not understand how to do the problems, you should visit my **office as soon as possible** for help. Furthermore, I intend to write your exams and quizzes using problems directly from or inspired by the homework. Finally, I drop your single lowest homework grade.

- **WeBWorK:** WeBWorK is an internet-based method for delivering homework problems to students over the internet. It gives students instant feedback as to whether or not their answers are correct. A key educational benefit of this system is that if you get a wrong answer, you get immediate feedback while the problem is still fresh in your mind. You can then correct your mistakes, review the relevant material before attacking the problem again, or seek help. This means that if you begin the homework promptly, you can get 100% on every homework! The web address for WeBWorK is provided at the top of the page. You may make printouts of your WeBWorK assignments for study purposes.
- **Paper Homework:** To prevent the misplacement of your papers, always **staple** your homework together and **label** it with the section number. This is not optional. If you do not have a stapler go get one today. If more than one assignment is due on the same day, please **label them** and **keep them separate** (i.e. do not write two different homeworks on the same sheet of paper). This is not optional. The grader will deduct points if you cannot follow these simple directions. For your own protection you should keep all your old assignments. They make excellent study aids!
- **Late Homework:** WeBWorK assignments must be completed by the day and time specified by the particular assignment. Paper homework must be given to me or delivered to my office by 5 p.m. on the due date. Late assignments will **not** be accepted but I will drop your lowest homework grade.

**Quizzes:** We will have a 10 minute quiz at the *beginning of class every Friday* except on Midterm Exam days. Your lowest quiz score will be dropped.

**Midterms:** We will have hour-long midterm examinations on

- **Friday, 29 September** (Week 5)
- **Friday, 3 November** (Week 10)
- **Friday, 8 December** (Week 15)

**Final Exam:** The final exam will be on **Monday, 18 December**. The time of the exam can be found in the table below.

<u>Class Meeting Time</u>	<u>Final Exam Time</u>
MWF 1:00 – 2:05	1:15 – 3:15
MWF 2:15 – 3:20	3:30 – 5:30

If this time creates a conflict for you then you must see me immediately. Rescheduling final exams is very difficult.

**Examination Policies:**

- Every examination should be considered cumulative.
- No make-up exams will be given. (See **Drop your lowest category** below.)

**Course grade based on:**

Homework	In Class Work (Quizzes, Worksheets, etc.)	Midterm 1	Midterm 2	Midterm 3	Final
20%	20%	20%	20%	20%	20%

**Drop your lowest category:** As you can see the percentages above add up to 120%. As a result your lowest percentage from among the first six categories will be dropped. For example if you bomb (or miss) one exam, that exam will be dropped – Just like it never happened!

**Learning Differently:** If you have a medical, psychiatric, or learning disability and require accommodations in this class, let me know early in the semester or as soon as you are eligible. You will first need to provide documentation of your disability to Services to Students with Disabilities located in Room 5 of the University Center (next to the Pub). Their phone number is 278-2811.

**Classroom Etiquette:** Let's face it. You look like a dork when your Dukes of Hazzard ringtone goes off in class. When class is in session your one and only focus must be on learning. Please aid in eliminating classroom disruptions by turning off your cell phone, arriving on time, not leaving early, and by participating fully in any group work.

**Avoid the Dark Side:** The University takes cheating very seriously and the policy regarding cheating is quite clear. Cheating carries a potential penalty of expulsion from the University. Moreover, cheating would not make your mother proud. So don't do it!