

41414 Math 12-61 MW Intro. Calculus for Bus. & Soc. Sci, Spring, 2015

Instructor: Dr. Karl Schaffer

Class meeting days: Mon./Wed.

Class time 6:30-8:45 PM

Classroom: E-36

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Office phone: 408-864-8214

Office: E-23A

Office Hrs: : Mon/Wed/ 5:30-6:20 PM, Tue/Thu 12:30-1:20 PM

or by appointment

De Anza class web site: <http://nebula2.deanza.edu/~karl/>

Class link login name: mathstudent password: 1234

Course content: Introduction to limits, differentiation, and integration of single variable functions. Differentiation of multivariate functions. Applications in business, economics, and social science.

Recommended: Programmable graphing calculator.

Not allowed: computers or other communication capable devices may not be used during class time or exams.

Put away and DO NOT use cell phones during class.

Student Learning Outcome Statements (SLO)

• **Student Learning Outcome:** Use correct notation and mathematical precision in the evaluation and interpretation of derivatives and integrals.

• **Student Learning Outcome:** Evaluate, solve, interpret and communicate business and social science applications using appropriate differentiation and integration methodologies.

Text: Applied Calculus, 4th edition, by Hughes-Hallett, Gleason, et al. ISBN: 978-0-470-17052-6. We will cover most of the text. It is the 4th edition, rather than the current 5th edition, so you should be able to purchase it very inexpensively online. Your first homework assignment is due the third class session.

We will cover chapter 1 quickly, then chapters 2 – 7, skip 8, some of chapters 9 and 10, skip 11.

Grades: 90-100 A, 80-89 B, 70-79 C, 60-69 D, < 60 F, based on:

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| 20% | Short quizzes, writing assignments or reports, or in-class assignments, often to be given during class. These will often involve group work. You may drop your lowest score. |
| 20% | 60 min. exam, Wed., April 22 (Open book, open notes, Scantron mostly) |
| 20% | 60 min. exam, Wed., May. 20 (Open book, open notes, Scantron mostly) |
| 20% | Homework assignments. Homework is assigned during each class and must be kept in a loose-leaf binder. Your homework will be collected ONLY at the end of each chapter. Homework is graded for completion, not correctness. NO LATE HOMEWORK ACCEPTED. EVER! |
| 20% | Final Exam: mandatory, comprehensive, given on Wed., June 24, 6:15-8:15 PM. (Open book, open notes, Scantron mostly) There will be no make-ups or early exams. The final exam will be used to replace one of the two 60 minute exams, if and only if final is higher. |

NO LATE WORK IS ACCEPTED - NO MAKE-UPS. IF YOU MUST MISS ONE MAJOR EXAM, IT WILL BE REPLACED WITH THE FINAL EXAM SCORE, BUT THIS IS NOT A GOOD IDEA! HOMEWORK ASSIGNMENTS MAY BE CHECKED AT ANY TIME, SO KEEP YOUR WORK CURRENT!

Some background on the instructor: Ph.D. and MA in Mathematics from UC Santa Cruz, undergraduate work at University of Chicago and University of Alabama. Grew up in New England and Alabama. Do research in the mathematics of “networks,” (graph theory) and am very active in math education for K-college. I am also a contemporary dance performer and choreographer, and company I co-direct does shows about math and dance, among other things. For more background on this see <http://www.mathdance.org> and/or www.movespeakspin.org.

In fact, we perform a unique concert on Thursday, April 30 at the De Anza Visual and Performing Arts Theater, entitled [The Daughters of Hypatia: Circles of Mathematical Women](#), about the lives of great women mathematicians throughout history, and their struggles to create groundbreaking mathematics.

First assignment:

Chapter 1: End of chapter review (pg 77), every other odd problem, starting with problem 1, 5, 9, ..., due at beginning of 3rd class session.