MATH 185 - LEC 001

Fall 2017 Homepage

Instructor: Steve Evans

Class time and place: Tue Thu 12:30 -- 2:00, 740 Evans Hall

Instructor office: 329 Evans Hall (NW corner of 3rd floor)

Instructor OH: Tue 2:00 -- 3:00 & Wed 1:00 -- 2:00

Instructor phone: 1-510-642-2777 (no voicemail)

Instructor e-mail: **evans@stat.berkeley.edu (mailto:evans@stat.berkeley.edu)**

GSI office hours: Mon Tue Wed Thu Fri 9:00-11:00 in 959 Evans Hall

Required text: *Introduction to Complex Analysis* by H.A. Priestley, Oxford University Press, Second Edition

Lecture notes: The "slides" that I use in class will become available in the "Files" section of the class bCourses site as they are produced by the UGSI who is helping me this semester: I have a disability that prevents me from typing and writing for extended periods of time. My lectures will involve going through the slides, interacting with the class, and expanding on points on the board to the extent that my disability allows. I know that some people don't like lectures with laptop projections, but I am physically unable to give a lecture that doesn't use this technology, so please don't take this course if laptop projections are a big problem for you.

Homework: Homework will be due on Thursday **in class.**

I will post the homework to the bCourses site.

Grading: Homework 15%, 1 Midterm (Thursday, October 12) 25%, Final (Thursday, December 14, 3pm-6pm, 740 Evans) 60%

Topics covered: This is the first time I have taught this course, so I don't want to commit to a rigid day-by-day syllabus to which I may not be able to adhere. Also, I want to leave space for plenty of student questions and responses without us needing to race onto the next topic. However, I hope to cover the following broad topics:

- the complex plane and its geometry and topology
- paths
- holomorphic functions
- power series and important examples of holomorphic functions
- conformal mapping
- multifunctions
- integration
- Cauchy's theorem
- Cauchy's formulae
- power series representation
- zeros of holomorphic functions
- maximum modulus theorem
- singularities
- residue theorem
- applications of contour integration