

Math 3210 - 3 Foundations of Analysis I August 11, 2014

M, T, W, F, 10:45 - 11:35 AM in WBB 207.

Homepage: <http://www.math.utah.edu/~treiberg/M3216.html>

Instructor: A. Treibergs, JWB 224, 581 - 8350.
Office Hours: M, T, F 11:45 AM - 12:45 PM (tent.) & by appt.
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Prerequisites: "C" or better in (MATH 2210 OR MATH 1260 OR MATH 1280)
AND (MATH 2200 OR MATH 2270 OR MATH 2250)

Texts: Joseph L. Taylor, Foundations of Analysis, American
Mathematical Society, Providence 2012.
ISBN 978-0-8218-8984-8

Grading

Homework: To be assigned weekly.

Homework will be due Fridays and will be collected in class. Papers turned into the graders, Eric Longberg's mailbox in the math mail room (JWB 228) by 1:30 PM Fridays before he leaves will be regarded as being turned in on time. Homework that is late but not more than one week late will receive half credit. Homework that is more than one week late will receive no credit at all.

Exams: Exams will be open book (tent.). You will be allowed to bring the text, your notes and homework papers. No calculators, laptops, tablets, phones, text messaging devices, or other books will be allowed.

Midterms: There will be three in-class one-hour midterm exams on Wednesdays Sept. 10, Oct. 8 and Nov. 12.

Final Exam: Mon., Dec. 15, 10:30 AM - 12:30 PM. Half of the final will be devoted to material covered after the third midterm exam. The other half will be comprehensive. Students must take the final to pass the course.

Course grade: Best two of three midterms 40% + HW 30% + final 30%.

Withdrawals: Last day to register is Sept. 8. Last day to drop class

is Sept. 19. Until Oct. 24 you can withdraw from class with no approval at all. After that date you must petition your dean's office to be allowed to withdraw.

ADA: The Americans with Disability Act requires that reasonable accommodations be provided for students with cognitive, systemic, learning and psychiatric disabilities. Please contact me at the beginning of the quarter to discuss any such accommodations you may require for this course.

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Objectives: To cover the theory of one variable calculus and to train the student in essentials of the professional mathematician: logic, proof and how to write a mathematical argument.

Topics: We shall try to cover the following chapters

- Chapter 0 - Review Sets, Logic, Quantifiers, Functions.
- Chapter 1 - The Real Numbers
- Chapter 2 - Sequences
- Chapter 3 - Continuous Functions
- Chapter 4 - The Derivative
- Chapter 5 - The Integral
- Chapter 6 - Infinite Series