MATH3210 - SPRING 2024 - SECTION 004

SYLLABUS

Instructor: Kurt Vinhage
Office Hours: TBA, and by Appointment
Course Website: `https://www.math.utah.edu/~vinhage/teaching/3210-sp24/`

Contact. The best way to contact me is through email (`vinhage@math.utah.edu`). I will respond to emails within 48 hours, but many times sooner.

Course Materials, Details and Description.

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

Prerequisites: "C" or better in ((MATH 2210 or MATH 1260 or MATH 1280 or MATH 1321 or MATH 3140) and (MATH 2200 or MATH 2270 or MATH 2250))

Bachelor Degree Requirement Met: This course meets the BS Quantitave Intensive (QI) requirement. This course addresses the following Essential Learning Outcomes: Inquiry and Analysis, Critical Thinking, Problem Solving.

Course Description: Logic, methods of proof and mathematical argument in mathematical analysis. Rigorous reconsideration of the real-number system, infinite series and of continuity, differentiation and integration for functions of one variable. The emphasis is on improving the student's ability to understand and explain concepts in a logical and complete manner.The course covers most or all of the following chapters from the textbook:

- Chapter 1: The Real Numbers
- Chapter 2: Sequences
- Chapter 3: Continuous Functions
- Chapter 4: The Derivative
- Chapter 5: The Integral
- Chapter 6: Infinite Series

Homework Assignments and Quizzes. There will be a weekly pdf homework assignment posted Fridays on the course website that should completed on paper, and due the following Friday. Grading for most homework assignments will be based primarily on *well-written and organized justifications*, rather than correct statements. Irregular quizzes, announced at least two class meetings prior, will be given and count as additional homework scores. *Only the top 10 scores among homeworks and quizzes will count toward your final grade.*

Exams and grading. Two midterm exams will be given in-class, tentatively on **February 19** and **April 1** (dates subject to change), in addition to the final exam given during finals week. Course grades will be determined using the following calculation. An estimated curve will be given after each exam.

Average of top 10 HW/Quiz scores	30%
Midterm 1	20%
Midterm 2	20%
Final Exam	30%

General Course Policies.

- Attendance is not taken in this course, but is strongly encouraged. It is your responsibility to obtain missed lecture notes or assignments.
- Come to class prepared. Before coming to class, it is best read the material covered in the last lectures. Make note of any definitions, concepts, and/or examples that you did not understand. During the lecture, these concepts should become more clear. If not, you will have already formulated the question you want answered.

Academic integrity. All university policiies regarding academic integrity apply to this course. Such policies are found in the student code.

Disability resources. The Americans with Disabilities Act allows me to provide reasonable accommodations to qualified individuals. To discuss any such accommodations, please contact me as well as the Center for Disability Services, (801) 581-5020, at the beginning of the semester.