

Math 482
Principles of Mathematical Analysis II
Spring 2001

Instructor: Brian Heck
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Office Hrs: MWF 11-12:30 pm, MW 2-6 pm

Prerequisites: Math 360

Text: There will be no required text for this course. We will work from notes passed out in class.

Course Objectives: To fully explore and understand the topics of Calculus II and III. We also want to further develop and improve theorem-proving abilities and apply them to many theorems from Calculus. Specifically, at the completion of this course, a student will be able to:

- analyze infinite sequences and series and determine whether they are convergent or divergent
- find the radius of convergence for convergent series
- analyze sequence and series of functions
- demonstrate an understanding of Euclidean space, distance, vectors, and open sets
- determine whether a given subset of Euclidean space is compact and/or connected
- define metric space and analyze a given metric on Euclidean space

Grading Policy: Your final semester grade will be computed from the following components. In addition to the requirements below, students taking the course for graduate credit will have to work a project assigned by me.

Board Work: Almost every day, students will put homework problems on the board. You will be graded on how successfully you present each problem, on how many you present, and on the difficulty of each problem. This will account for 25% of your final semester grade.

Turn-In: Every Monday I will pass out (or assign) a problem set of 3-10 problems to be turned in the following Monday. This will account for 25% of your final semester grade.

Exams: We will have 2 exams (an in class mid-term exam and a take home final exam) this semester. This will account for 50% of your final semester grade.

Attendance: I will not include attendance as part of your course grade. I am not your mother or your parole officer, and this is not high school. I do, however, expect you to attend everyday. You are responsible for any and all material covered in class. If you miss any class, it is up to you to meet with me (if necessary) and catch up on the material you missed.

Approximate Class Schedule:

Mid Term Exam Friday, March 9, 2001

Final Exam will be passed out Monday, May 7, 2001 and will be due Wednesday, May 16, 2001.

Important Dates:

Final Date to Add Courses or Drop Without a "W" - Monday, January 22

Final Date to Drop Courses With a "W" - Monday, April 2