Advanced Calculus I (MAA4211)

Fall 2016: Section 7222, MWF 2nd hour, Little Hall, room 125

Email: mjury@ufl.edu

Office: Little Hall 404
Office Hours: TBA

Text: There is no required text for the course, all the material may be found in the lecture notes which will be posted below as the course progresses. If you want to look at a book, two that may be helpful are Introduction to Analysis, by Maxwell Rosenlicht, Dover, 1968, and Principles of Mathematical Analysis, by Walter Rudin, McGraw-Hill, 1976.

Course Content

A rigorous treatment of the foundations of Calculus including the real numbers; metric spaces; continuity; differentiation; and sequences and series of functions. In addition to mastery of the course content, course objectives include reading, writing, and discovering proofs and constructing proofs and counterexamples in analysis.

During the fall semester I expect to cover Chapters 1–8 in the lecture notes.

Lecture Notes

[Last update: 8/15/16]

This week’s lectures
Monday 8/22: Introduction to the course, finished Definition 1.7.

Past lectures

Homework assignments

Homework will be collected and graded roughly once a week, for a total of about 10 to 15 problems. In addition several problems will be assigned each lecture (not to be turned in). Late homework will not be accepted, but the the lowest two homework scores will be dropped.

Homework submissions in LaTeX are encouraged. I will provide a template .tex file for you to use.

All problem numbers refer to the lecture notes posted above.

Homework 1 (due Friday 22 Aug): Problem 1.2

Grading policies

The course grade will consist of the homework average (25% of the final grade) and three midterm exams (25% each).

Final grades are assigned according to the standard scale: 90-100 A, 87-89 A-, 84-86 B+, 80-83 B, 77-79 B-, etc.

Tentative exam dates are as follows:
Exam 1 TBA
Exam 2 TBA
Exam 3 TBA

The final exam (Friday, Dec. 16th, 10:00-12:00 AM) will serve as a make-up.

No notes or books will be allowed during exams.

University policies and resources

Clean of Students:

- Academic Honesty Guidelines (includes Code of Student Conduct, University of Florida Honor Code)
- Disability Resources
- Americans with Disabilities Act Compliance
- Mathematics Department Policy on Incompletes
- UF Policy for assigning grade points/This link has nothing to do with the grading policies of this course; rather it explains how letter grades are converted to grade points for the purpose of computing GPAs.)