

Syllabus: MAA 4212 Real Analysis and Advances Calculus 2

Instructor: Dr. Yeor Hafuta

Office: LIT 410

yeor.hafuta@ufl.edu

Time and location: MWF 9:45-10:35 AM, MAT 10 (the class will begin via zoom and you will be notified when we switch to in person instruction)

Office hours (tentative): MWF after class

Textbook

We will use lecture notes that will be posted on canvas.

Course contents and objectives

A rigorous treatment of the foundations of Calculus and a continuation of MAA4211. Topics include metric spaces, metric space topology, continuous functions, sequences of functions and the metric space of continuous functions on a compact set, the derivative of functions from one Euclidean space to another, and the inverse and implicit function theorems. In addition to mastery of the course content, course objectives include reading, writing, and discovering and constructing proofs and counterexamples in analysis.

Tentative Schedule

Metric spaces-three weeks

Compactness-two weeks

Continuity-two weeks

Sequences of functions-two weeks

Power series-a week

Linear algebra-two weeks

Multivariate calculus-three weeks

Homework

Some Homework will be assigned, but will not be graded

Tentative Grading System

There will be two midterms and a final exam on the last day of class. The tentative dates for the midterms are February 17 and March 31 Each exam is worth 30 points. Attendance is worth 10 points.

Course Policies:

Absence from Exams

Missing an exam is permitted ONLY for the most compelling reasons. Please notify me IN ADVANCE, if possible, if an exam is to be missed. Otherwise, you will be given a 0.

Class Attendance

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.u.edu/UGRD/academic-regulations/attendance-policies/>

Students with Disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center:

352-392-8565, <https://disability.uf.edu/>

by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Students' Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.u.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals,

in their Canvas course menu under GatorEvals, or via

<https://uf.bluera.com/uf/>

Summaries of course evaluation results are available to students at

<https://gatorevals.aa.u.edu/public-results/>