



Analysis II (MAA6617) Spring 2020

Time and Location

MWF 4, Little 205

Office hours: TBA

Description and Goals

This course is a continuation of MAA6616. The second semester consists of an introduction to functional analysis, including Banach spaces, Hilbert spaces, and the theory of linear operators. Other topics that may be included (depending on time and interest) are harmonic analysis and the Fourier transform, the theory of distributions, the spectral theorem, and an introduction to Banach algebras.

Text: There is no required text for this course. A complete set of lecture notes will be posted on the webpage as the course progresses.

Some standard texts that treat the material covered in this course are:

Real Analysis: Modern Techniques and Their Applications by Gerald B. Folland

Real and Complex Analysis by Walter Rudin

Real Analysis by H. L. Royden

Real Analysis: Measure Theory, Integration, and Hilbert Spaces by Eli Stein and Rami Sharkachi

Some additional references for the second part of the course (on functional analysis) are:

Functional Analysis by Peter D. Lax

A Course in Functional Analysis by John B. Conway

Lecture Notes

Current notes (updated 5 January 2020)

(The current notes so far only contain sections 20 and 21, further sections coming soon.)

Fall semester lecture notes (sections 1 through 19)

Homework

No homework yet.

Grades

Grading will be trivial provided you participate and do the homework. There will be a midterm and possibly a final exam, depending on interest.

Attendance

Attendance is recommended.

University policies and resources

Grades: Grading will be in accord with the UF policy stated at <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Honor Code: “UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The [Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.”

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.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.”

Accommodations for Students with Disabilities: “Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.”

Online Evaluations: “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.ufl.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://ufl.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.”

Contact information for the Counseling and Wellness Center: <https://counseling.ufl.edu/>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit umatter.ufl.edu/ to refer or report a concern and a team member will reach out to the student in distress.



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