

Math 522, Analysis II

Basic Information

Instructor: Sergey Denisov
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Office Hours: regular, by Zoom: each Monday, 7:00–8:00 pm
in person, by appointment only: each Friday, 2:15–4:00 pm,
B325 Van Vleck

Text: required: *Principles of Mathematical Analysis* by W. Rudin
McGraw Hill, third edition
suggested: *Mathematical Analysis: an Introduction* by A. Browder,
A Companion to Analysis: a Second First
and First Second Course in Analysis by T. Körner

Exams:

There will be two midterms and the final exam. The tentative dates for the midterms are October 11 and November 15. The date and time for the final exam is: December 21, 2:45 – 4:45 pm, room tba.

Assignments:

Homework problems will be regularly posted on Canvas every Wednesday starting September 15. Typically, you will have one week to turn them in on Canvas. I expect all assignments to be written neatly, and uploaded on time. You can collaborate on hw but should write solutions in your own words.

Grading:

Your final grade will be calculated as follows. For each of you, I will compute the number

$$x = 0.4 \cdot \frac{\text{your total hw}}{\text{max hw score}} + 0.3 \cdot \frac{\text{your score for the final}}{\text{max final score}} + 0.3 \cdot \frac{\text{your score for the midterms}}{\text{max midterms score}}$$

Now $x \in [0, 1]$. Your grade will be determined by the following table

$0.9 \leq x \leq 1$	<i>A</i>
$0.85 \leq x < 0.9$	<i>AB</i>
$0.75 \leq x < 0.85$	<i>B</i>
$0.65 \leq x < 0.75$	<i>BC</i>
$0.5 \leq x < 0.65$	<i>C</i>
$0.4 \leq x < 0.5$	<i>D</i>
$x < 0.4$	<i>F</i>

After the final this table can change BUT ONLY IN YOUR FAVOR!

Material:

The topics will include uniform convergence, special functions, contraction principle, differential calculus in metric spaces, implicit function theorem, compactness in metric spaces.

General comments:

You can collaborate on your homework but the solutions should be written by you and in your own words. No calculators are allowed on exams. Any violations of these rules will be considered as an academic misconduct. For those of you taking this class with “honors”, the additional reading assignments and some extra problems will be given.

COVID: You are expected to observe UW covid related policies