MATH-UA.0325-001: Analysis
NYU, Fall 2019

Lectures: Mondays & Wednesdays 14:00-15:15 in CIWW 1302
Problem sessions: Fridays 14:00-15:15 in CIWW 102

Instructor: Antonio De Rosa (CIWW 519, ad4470@nyu.edu)

Recitation leader: Gavin Stewart (CIWW 707, stewart@cims.nyu.edu)

Office Hours: Mondays 10:00am-12:00pm in CIWW 519 for De Rosa, and Thursdays 10:00am-12:00pm in CIWW 605 for Stewart.

Textbook: Jiří Lebl, *Basic Analysis I*. The book is available for free online and Google can find it. You can also buy a paper copy on Amazon for $13.20.

Overview of the course: The plan is to cover most of the topics of the book (Chapters 1-7) during the semester.

Homework: Homework problems will be assigned weekly and due on Fridays at the beginning of Recitation. I encourage you to work together on the assignments, but you need to write down your own solutions. The assignments will be posted on the course webpage (NYU Classes).

Exams: A midterm exam will be held in class on October 28 (tentative schedule). The final exam will be held on Monday, December 16, 2019 at 2pm - 3:50pm (location TBA). Students ***must attend*** both exams. The exams cannot be rescheduled except for emergencies and make-ups will not be given.

Grade determination: Homework 25%, Midterm 35% and Final 40%.

Tentative schedule for the course: There will be 27 lectures. Here is the plan for them.

- Sets and Real Numbers (chapters 0 and 1): Sep 4, 9

- Sequences and Series (chapter 2): Sep 11, 16, 18, 23

- Continuity (chapter 3): Sep 25, 30, Oct 2, 7

- Differentiation (chapter 4): Oct 9, 16, 21, 23

- Midterm Exam: Oct 28 (tentative schedule)

- Integration (chapter 5): Oct 30, Nov 4, 6, 11

- Sequences of Functions (chapter 6): Nov 13, 18, 20, 25

- Metric spaces (chapter 7): Dec 2, 4, 9

- Review Day: Dec 11

- Final Exam: Dec 16 from 2pm - 3:50pm