MATH-UA.0325-001: Analysis
NYU, Fall 2020

Lectures: Tuesdays & Thursdays 9:30-10:45

Instructor: Guido De Philippis (CIWW 613, gd1226@nyu.edu)

Office Hours: Tuesday 12.30am-14:30am in CIWW 613 for De Philippis,

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. Exercises will be assigned based on Version 5.2 (May 2019) of the book.

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 starting from the second week of classes and it is due in 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), the two worst grade will not be counted for the final grade. Late submission will not be accepted for any reason.

Exams: There will be a midterm exam (around mid October) and a final exam at the end of the semester (the exact date has yet to be fixed). Students ***must attend*** both exams.

    The exams cannot be rescheduled except for emergencies and make-ups will not be given.

Grade determination: Homework 35%, Midterm 30% and Final 35%.

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

- Sets and Real Numbers (chapters 0 and 1): 4 lectures
- Sequences and Series (chapter 2): 3 lectures
- Continuity (chapter 3): 4 lectures
- Differentiation (chapter 4): 3 lectures
- Midterm Exam: TBA
- Integration (chapter 5): 3 lectures
- Sequences of Functions (chapter 6): 4 lectures
- Metric spaces (chapter 7): 3 lectures
- Review Days [1]: 1/2 lectures
- Final Exam: TBA

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[1]if needed one of the two days will be used to complete the program.