

Math 4111: Introduction to Analysis

Fall 2018

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Lecture: MWF at 10:00-11:00 am in Duncker 101

Textbook: *Mathematical Analysis, Second Edition*, by Tom M. Apostol

Course Content: This course is a rigorous introduction to mathematical analysis. We will cover basic properties of the real numbers, point-set topology, metric spaces, and differentiation. Our goal is to prove and generalize many of the theorems you may already be familiar with from calculus.

Homework: Completing written assignments plays a key role in learning the material. Your homework will consist of writing up complete and correct proofs of each assigned problem. Problems will be posted on Canvas and you will submit your solutions through Crowdmark every Tuesday. Late or illegible homework is not acceptable. You are encouraged to work with others, but you must write up solutions individually.

Exams: There will be two in-class exams, one on **Wednesday, September 26** and one on **Wednesday, October 31**. The final exam will take place on **Monday, December 17** at 10:30am-12:30pm and consist of both an in-class and take-home component. There are no make-up exams, and attendance at the two midterm exams and final exam is expected. If you miss one midterm exam for some reason, the missed exam grade will be replaced with your final exam grade. Absences on both midterm exams or on the final exam require a documentable excuse and meeting with the professor.

Grading: Grading of all assignments is based on content and form. Your work must demonstrate your mastery of the mathematical topics and be clearly expressed. Your lowest midterm exam score will be replaced with your final exam score if this increases your grade, and I will drop your lowest homework score. The lower bounds for letter grades are *at least* as generous as the standard grading scale. Final grades are weighted by:

Homework	25 %
Exam 1	20 %
Exam 2	20 %
Final Exam	35 %

Preparing written assignments:

- **Both content and form count in grading.** Write in complete sentences. Make use of all relevant mathematical terms and use proper mathematical grammar.
- Your writing should be clear and concise.
- Any regrade requests must be made within a week of the assignment being returned.

- Any work submitted under your name is expected to be your own, neither composed by anyone else as a whole or in part, nor handed over to another person for complete or partial revision. **Be sure to document all ideas that are not your own.**

Academic Integrity: Students must comply with Washington University regulations regarding academic integrity. For more information, see: <https://wustl.edu/about/compliance-policies/academic-policies/undergraduate-student-academic-integrity-policy/>. Plagiarism is a form of cheating or fraud; it occurs when a student misrepresents the work of another as their own. For example, you are not allowed to search or post requests for homework solutions.

Disability Resources (DR): Special accommodations for exams are offered to students who have registered in a timely manner at Disability Resources (DR), preferably within the first two weeks for class. More information about DR may be found at: <http://disability.wustl.edu>