Transition to Advanced Mathematics

Math 2710W › Fall 2019

Instructor Info

Instructor: Damir Dzhafarov
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Office hours: Wednesdays, 1:30-2:30, and by appointment

Course Info

Lectures: Mondays, Wednesdays, Fridays, 12:20-1:10, in MONT 113.
Text: *Introduction to Mathematical Thinking: Algebra and Number Systems* (1st Edition) by Will J. Gi
Reading assignment and homework problems will be posted on the course website.
Grades and homework solutions will be posted on HuskyCT.

Tentative schedule

(Subject to change. Please check back frequently.)

Week 1: Section 1.1, 1.2, 1.3, 1.4, 1.5.

Homework 1, due Monday, September 9. Text, p. 20: 1, 3, 5, 6, 7, 9, 12, 26, 28, 33, 37, 39, 45, 62, 6

Week 2: Section 1.4, 1.5, 1.6.

Portfolio Problem 1. Text, p. 22: 75.

Homework 2, due Monday, September 16. Text, p. 50: 2, 5, 7, 10, 11, 12, 28.

Week 3: 2.1, 2.2.

Homework 3, due Friday, September 27. Text, p. 50: 9, 19, 21, 22, 24, 49, 70, 71, 74, 83.

Portfolio Problem 2. Text, p. 54: 93.

Week 4: 2.2, 2.5.

Portfolio Problem 3. Text, p. 55: 108.

Week 5: 2.5, 3.1, 3.3.

Homework 4, due Friday, October 4. Text, p. 82: 2, 3, 4, 5, 6, 8, 9, 10.

Portfolio Problem 4. Text, p. 87: 95.

Week 6: 3.3, 3.4.

Week 7: Review, first midterm.

Week 8:

Week 9:

Week 10:

Week 11:

Week 12:

Week 13: Review, second midterm.

Week 14: Thanksgiving recess.

Week 15:

Week 16: Writing portfolio due.

Note of caution

This is a course intended to prepare students for taking more advanced mathematical material. As s
rigorous, and all students are expected to commit significant time and effort to it. A grade of C+ or be
require this course as a pre-requisite.

Reading

All students are expected to read the text. Reading mathematics can be difficult, and it is very comm
completely on your first, second, or even third pass. Focus on definitions and examples, and keep th
proofs.

Office Hours

For lingering questions or points of confusion, either about general concepts or specific homework p
to attend office hours. However, I will not discuss any problem with a student who has not already at
their own.

Homework

Exercises from the text will generally be assigned on Monday of each week, covering the coming we
one week later. Complete solutions will be posted online. Students are welcome and encouraged to
expected to write up their own solutions. Copying of any kind will not be tolerated. All homework sho

Writing Component

Separate from the homework, one exercise will be assigned each week, for a total of fifteen, as part
an in-depth problems, for which a careful and complete write-up is expected, about one page in leng

instructor throughout the semester for feedback on their write-ups, and can revise any of them at an
The portfolio must be submitted to the instructor by 5pm on December 11 (Wednesday of finals wee
portfolio should be typed in LaTeX.

Exams

There will be two midterm exams: one on Friday, October 11, covering roughly Chapters 1-3; and th
covering roughly Chapter 4-6.

Grading

In accordance with the University's W Course Guidelines, a student can only pass the course if they

If a student attains more than 25% on the writing component (writing portfolio), then their grade will
(25%), the two midterm exams (25% each), and the writing portfolio (25%).

The lowest three homework scores will be dropped from the above average.

LaTeX Resources

LaTeX is a powerful software platform for preparing and formatting text, far exceeding common word
suited for scientific and mathematical writing, and as such students are encouraged to learn to use i

An excellent and free online LaTeX editor is Overleaf, which does not require any software installatio
also has a useful guide to getting started.

There is also a wonderful tutorial by Jim Hefferon, specifically aimed at undergraduate wrting.

Policies

The course follows the University's syllabus policy.

No make-up exams will be given and no late homework will be accepted.

All students are expected to abide by the University's Community Standards at all times.