

Math 500: Midterm the Second

Date/Time/Location: Wednesday, April 9 in the usual class time and location.

Office hours: For the week of April 7, I will have the following special schedule:

- Monday from 1:30-3.
- Tuesday from 2-3:30.
- No office hour on Wednesday or Thursday.

Test format: The questions will be similar to, but on average easier than, those on the homework assignments. I will not ask you to repeat proofs of theorems covered in class or in one of the texts.

Cheat sheet: The text will be closed book, but you may bring one sheet of standard US letter or A4 paper to the exam, on which you have written, printed, or copied anything that you think will be helpful. You can use both sides, but must be able to read it without a magnifying glass or suchlike aide.

Material covered: The subject of this exam is rings and modules. Fair game is anything from:

- Lectures from February 21 through April 4 (inclusive).
- Part 2 of Rezk's notes, except for Sections 10, 24, 34, 47, 53-55.
- The following parts of Dummit and Foote: Sections 7.1-7.5, Chapter 8, Chapter 9 except for the part of Section 9.6 after Corollary 22, Sections 10.1-10.3, Chapter 12.

By far the most important material is that which appeared in lecture or on the homework.

Study resources: The course webpage, which is <http://dunfield.info/500> contains scanned lecture notes and solutions to the HW problems. The solutions to HW 8 will automatically be posted after class on Friday.

Practice exam: I have posted the exam I gave in Fall 2023 on the course schedule part of the webpage, see the entry for April 9. You may find useful practice questions on old algebra comp exams.

<https://math.illinois.edu/academics/graduate-program/coursework-and-exams/study-comp-exams>