

Math 594 Syllabus

Winter 2019

1. General information

Time and place: TuTh 2:30pm–4:00pm in 3088 East Hall

Professor: Snowden (Office: 4855 East Hall; e-mail: asnowden@umich.edu)

Office hours: Monday and Thursday 9:30am–11:00am, or by appointment

Texts: Milne, *Group Theory* and *Fields and Galois Theory* (free online)

2. Exams

There will be a midterm and final. The midterm is on Thursday, February 28, during our normal class meeting (2:30pm–4pm), and makes up 35% of the final grade. The final is on Tuesday, April 30 from 4pm to 6pm, in our usual classroom, and makes up 50% of the final grade.

3. Homework

There will be 12 homework assignments, making up 15% of the final grade. The lowest two homework scores will be dropped. Homework will typically be due on Tuesday, at the beginning of the class. Late homework is not accepted. If you will not be in class when homework is due, you can hand in your assignment early or e-mail me an electronic copy (by the beginning of the class it is due). Students are encouraged to work together on homework problems, but each student must write up their solutions independently. Homework solutions must be presented in an organized and legible fashion, or will be marked down.

4. Grades

As described above, there will be 12 homework assignments, one midterm exam, and one final exam. Homework is worth 15% of the final grade, the midterm 35%, and the final exam 50%. The lowest two homework scores will be dropped in computing your grade.

5. Material

The course is divided into four parts, of approximately equal lengths:

- Part I. Group theory
- Part II. Representation theory
- Part III. Field theory
- Part IV. Galois theory

We will not follow the textbooks closely, but most of what we cover can be found in them.

COURSE PLAN

1/10	Lecture 1	Group theory	
1/15	Lecture 2		
1/17	Lecture 3		
1/22	Lecture 4		Homework 1 due
1/24	Lecture 5		
1/29	Lecture 6		Homework 2 due
1/31	Lecture 7		
2/5	Lecture 8	Representation theory	Homework 3 due
2/7	Lecture 9		
2/12	Lecture 10		Homework 4 due
2/14	Lecture 11		
2/19	Lecture 12		Homework 5 due
2/21	Lecture 13		
2/26	Review for midterm		Homework 6 due
2/28	Midterm		
3/5	<i>No class: Spring break</i>		
3/7	<i>No class: Spring break</i>		
3/12	Lecture 14	Field theory	Homework 7 due
3/14	Lecture 15		
3/19	Lecture 16		Homework 8 due
3/21	Lecture 17		
3/26	Lecture 18		Homework 9 due
3/28	Lecture 19		
4/2	Lecture 20	Galois theory	Homework 10 due
4/4	Lecture 21		
4/9	Lecture 22		Homework 11 due
4/11	Lecture 23		
4/16	Lecture 24		Homework 12 due
4/18	Lecture 25		
4/23	Review for final		
4/30	Final exam, 4pm–6pm		