

Mathematics 60220–Basic Graduate Algebra,

Instructor	Sam Evens
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Office Hours	Monday 12:00–12:50 Wednesday 5:00–6:00 Or by appointment

Course Description

We will study modules, fields, commutative algebra, and a little algebraic geometry. We will cover topics from chapters 10, 12, 13, 14, and 15 of Dummit and Foote, and from chapters 3, 6, 7, 8, 10, and the supplement of Ash.

Texts

There are two main texts I will use:

- (1) Abstract Algebra: The Basic Graduate Year, by Robert Ash, available for free download at:
<http://www.math.uiuc.edu/~r-ash/Algebra.html>
- (2) Abstract Algebra, 3rd edition, by Dummit and Foote (available in the bookstore, on reserve in the math library)

Some of you may want to consult:

- (3) Serge Lang, Algebra, Revised 3rd edition, Springer-Verlag, on reserve in the math library. This is a more challenging book and the point of view is more sophisticated.
- (4) Michael Artin, Algebra, Prentice Hall (a very good book for undergraduate algebra, which has some intersection with material on fields for this course).

Hour Exam

There will be one exam during the semester. It will be takehome, and will be in late February.

Final Exam

The Final Exam will be takehome, and you will get it on the last day of classes. It is due by the last day of exam period.

Homework

There will be homework assigned roughly two out of every three weeks. It will be due Wednesdays, but if you need to ask me questions or want an extra day or two to finish work, you can turn it in by the start of class Friday with no penalty. After that, homework will be deemed late. If you have one or two late assignments during the semester, there will be no penalty, but you will be penalized if you have more than two late homework assignments. Homework should be written up separately by individual students, although talking to people about problems together is certainly encouraged. Homework will be announced in-class and posted on the course website at: www.nd.edu/~sevens/m60220.html

Grading

The final grade will be a weighted average of the grades on the homework, hour exams, and final exam as follows:

Hour Exam	20%
Final Exam	30%
Homework	50%