Math 5013: Modern Algebra II

MWF 9:30 - 10:20, MSCS 428

Instructor: Jeff Mermin
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email: mermin@math.okstate.edu
Course web page: http://www.math.okstate.edu/~mermin/5013/
Desire2Learn: https://oc.okstate.edu (then log in and find our course).

Office Hours TBA or by appointment.
T 1:00-2:30, W 1:30-2:30, 4:00-5:00

Subject matter This is the sequel course to last semester's Math 5003, which covered group theory and Galois theory. We will concentrate on the theory of (commutative) rings (with identity).

An important subtheme is the art of discovering and writing proofs.

Relationship to other courses Math 5013 is the second half of the masters Algebra sequence.

Textbook *Abstract Algebra (3rd edition)* by J. S. Dummit and R. M. Foote.

Grading Your course grade will be out of 500 points, assigned as follows:

100	Homework
100	Midterm, Friday, Feb. 10
100	Midterm, Friday, March 16
100	Final, Wednesday, May 2, 8:00-9:50 AM
100	Classroom grade: In-class work and/or Intangibles (e.g., class participation)

A total score of 450 will guarantee you an A, a 400 will guarantee a B, etc.

Homework There will be written homework assignments, due approximately every Monday. These assignments will involve proofs, and grading will emphasize clarity of exposition. All work should be written legibly on normal-sized and normal-shaped paper, and should make appropriate use of whitespace. All solutions should be written in complete mathematical sentences, and in such a way that a typical classmate would have no trouble understanding either the questions or the ideas involved in your solutions.

Late policy. Because the course builds on itself, it is important that you not fall behind. Thus late homework will in general not be accepted. However, I will allow you ten "grace days" to be used over the course of the semester.

Collaboration. Mathematics is a collaborative venture; you are encouraged to work together with friends and/or classmates on homework, including written homework. However, you must **write up your work yourself** and **acknowledge anyone who helped you.** For your own protection, you should insist that both you and your collaborators truly understand everything you claim.

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Exams I hope to assign take-home exams, to be distributed in class between two and seven calendar days before the official exam date. If for any reason I find this infeasible, we will have normal in-class exams during the class period.

Academic integrity Don't cheat, or help other students cheat. Please read my "rules for written assignments" at

http://www.math.okstate.edu/~mermin/5013/airules.pdf.

If, after reading this, you aren't sure whether or not something is allowed, ask me before you try it.

Don't violate academic integrity in any other way, either. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will result in your being sanctioned according to the OSU academic integrity process. If you have further questions, contact the Office of Academic Affairs, 101 Whitehurst, 405-744-5627, http://academicintegrity.okstate.edu.

Illness policy If you cannot take an exam due to illness or another emergency, you must provide documentation to arrange a make-up.

If you cannot attend a regular class due to illness or another emergency, no documentation is necessary. If you aren't sure whether or not you're too ill to attend class, please see a doctor. If you need to miss *several* classes, let me know as soon as possible, so that I may plan how to accommodate the situation.

Syllabus attachment Please read the OSU syllabus attachment on the web at

http://academicaffairs.okstate.edu/faculty-a-staff/48-syllabus-spring

This has a lot of important information, including instructions about disability accomodations. Please contact me privately during the first week of the course if you need accommodations as the result of a disability.

If circumstances arise which are not addressed here, I reserve the right to fall back on the policies outlined in Y. Kachi's syllabi at the University of Kansas (see, for example, http://www.math.ku.edu/~kachi/alg11s-791-sy1.pdf).