MATH 4613/5003—Modern Algebra I—Fall, 2012
MWF 9:30-10:20 AM, MSCS 509

Instructor: Dr. Robert Myers, Professor of Mathematics

Office: 429 Mathematical Sciences

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Online Classroom (Desire to Learn, "D2L"): https://oc.okstate.edu Check this site for announcements, homework assignments, supplements, and other material.

Office Hours: MWF 2:30–3:20 PM or by appointment.

Text: *Abstract Algebra, Third Edition*, by David S. Dummit and Richard M. Foote.

The current plan, time permitting, is to cover Chapters 1-5 (group theory) and portions of Chapters 7-9 (ring theory). As the course progresses this may change; some sections may be dropped; other sections may be added. You should begin by reviewing the Preliminaries in sections 0.1-0.3. This is material contained in the prerequisite course Math 3613 Introduction to Modern Algebra as well as in similar introductory proof based courses at other universities.

Exams: There will be two fifty minute examinations. A comprehensive final examination will be administered from 8:00 to 9:50 AM on Wednesday, December 12. Unless otherwise indicated, exams will be closed book, closed notes.

Homework: Regular homework will be assigned. Those problems with a * on them should be turned in to be graded. I suggest that you also work on the unstarred problems as well for more practice and to better understand the material.

It is expected that the work you turn in is your own work. You should write the homework on 8-1/2 by 11 inch paper **with no ragged edges**. **Do not use graph paper.** Also, you should **write on only the front side of the paper.** I will use the reverse side to make comments on your work. Please **print** neatly. Work that I cannot read I will count as wrong. Each assignment should be stapled. Homework is due by 5:00 PM on the due date. You may turn it in either to me or to the mathematics department office (MSCS 401) to be time-stamped and put into my mailbox. **Late homework will not be accepted.**

The individual homework assignments will have varying numbers of points. At the end of the semester the total will be normalized to a percentage.

Grading Policy: You will in general be graded not just on your final answer but on the details of how you obtain the answer. In particular you must use the method specified in the problem and show all of the intermediate steps one at a time. You must use the notation given in the book and in class.

A large part of the work will involve giving mathematical definitions and proofs. These should be written in complete, grammatically correct sentences with the technical terms correctly spelled. These sentences should be precise statements which make logical sense. In a proof they should be arranged in a logical order which completely and unambiguously establishes the truth of the assertion to be proven.

Course Grade: The combined homework scores count 30%. Each midterm exam counts 20%. The final counts 30%. The following percentages will guarantee at least the corresponding grades. I reserve the right to possibly lower the cutoffs for some of the grades.

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90%–A, 80%–B, 70%–C, 60%–D

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Makeup Exams: Makeups for exams will be given only for serious and unavoidable reasons. You should try if at all possible to contact me before the regularly scheduled exam time.

For further information on such things as drop dates, special accomodations for students with disabilities, academic integrity, and general university policies please see the university syllabus attachment. It is available online at http://academicaffairs.okstate.edu/faculty-a-staff/47-syllabus-fall