## SYLLABUS, MODERN ALGEBRA MATH 4300/6300, MWF 2:10 -3 PM, SC1313 INSTRUCTOR: MARK V. SAPIR (SC1522)

OFFICE HOURS: AN HOUR AFTER EACH CLASS OR BY APPOINTMENT.

This is a graduate level course for future professional mathematicians. Prerequisites are the normal courses of undergraduate mathematics: abstract and linear algebra, calculus, etc. The main book: "Topics in Algebra" by I. N. Herstein (second edition). Also we will be using O. Bogopolskii "Introduction to Group Theory (EMS Textbooks in Mathematics)" and M. V. Sapir "Combinatorial Algebra: syntax and semantics" (Springer). All three books are available on Amazon.com. My book is also on my Web page, www.math.vanderbilt.edu/~ msapir.

This is the first half of a two-semester course. Roughly, we will study groups in the Fall and rings in the Spring.

There will be no midterms. I will assign homeworks every week due next week. Homework assignments will be graded and will contain mostly "proof problems". Only complete proofs will be accepted with full grades. At the end of the Fall semester, there will be a final exam (the date will be chosen later), which will give 20% of the total score. The final grading is usual:

 $\begin{array}{l} A:93\text{-}100\%,\\ A\text{-}:90\text{-}93\%,\\ B\text{+}:87\text{-}90\%,\\ B:83\text{-}87\%,\\ B\text{-}:80\text{-}83\%,\\ C\text{+}:77\text{-}80\%,\\ C:73\text{-}77\%,\\ C\text{-}:70\text{-}73\%,\\ D\text{+}:67\text{-}70\%,\\ D:63\text{-}67\%,\\ D\text{-}:60\text{-}63\%,\\ \end{array}$ 

F : below 60%.