MATH 60220:BASIC ALGEBRA II, Spring 2008

INSTRUCTOR: **Claudia Polini**
E-MAIL: `cpolini@nd.edu`
PHONE: 631-8849
OFFICE HOURS: M-F 3:00–4:00, and by appointment
OFFICE: Hurley 272
LECTURES: MWF 12:45–1:45, De Bartolo 336
TEXTBOOK: *Algebra* by Hungerford
OTHER TEXTS: *Abstract Algebra* by Dummit and Foote
               Algebra by Artin
               Algebra by Lang

Course Outline

This course is a direct continuation of Math 60210. We will study module theory (tensor product, finitely generated modules over principal ideal domains, Jordan canonical form), some basic homological algebra and field theory (algebraic field extensions, ruler and compass constructions, roots of unity, finite fields, Galois theory, solvability of equations by radicals).

Grading

The course grade is based on the number of points you receive from the homework and the homework discussion (200 points maximal) and from the midterm (100 points maximal).

1. ***Homework****:* Homework assignments will be collected every Friday. Every Friday from 1:15-1:45 there will be an homework discussion where the students are to present some of the homework on the board.

2. ***Midterm****:* Take Home. The take home will be posted on my web site during Spring Break. The take home is due Friday March, 14.