## Math 541 Algebra Spring 2011

Instructor: Shamgar Gurevich, 317 VV. Time and Location: MWF 08:50-09:40, Room VVB231. Office Hours:

Monday 1:00–3:30pm

Texts: I will use the book "Algebra" by M. Artin. Mainly chapters 2, 5, 6, 9, 10.

**Syllabus:** Motivations, Groups, Symmetry, Representation Theory, Rings, Applications to problems of disciplines outside of mathematics.

**Grading:** There will be regular assignments which will be due in two weeks from the day they appear, a midterm exam (with optional re-do), a final exam, and a notes project. They will count toward the grade as follows:

HW	40%
Notes	20%
Midterm	20%
Final	20%

Attitude: In our course we will study basic algebraic structures and some of the problems that motivated their appearance.

The attitude will be to help you to develop your way on how to think about some mathematical objects that appears in the formulations and solutions of various problems. We will learn that good problems and their mathematical formulations are the key ingredient in finding solutions, and we will develop abilities to express ourselves mathematically, including, writing computational results and proofs.

## Good Luck!