

Math 331

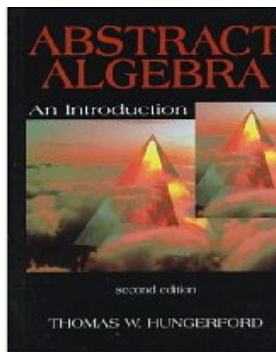
Groups, Rings and Fields

Time & place: MW 2:30– 3:45, AB 635

Instructor: V.Deaconu, e-mail: vdeaconu@unr.edu

<http://wolfweb.unr.edu/homepage/vdeaconu>

Text: *Abstract Algebra, An Introduction, 2nd edition* by Thomas W. Hungerford. We will cover sections 1.1-1.3, 2.1-2.3, 3.1-3.3, 4.1-4.4, 5.1-5.3, 6.1-6.2, 7.1-7.9, 8.1-8.2, 9.1-9.2 (tentative).



This course begins with things you've seen before: grade-school arithmetic and the algebra of polynomials from high school. We shall see how these familiar objects fit into a larger picture— they are just special cases of certain abstract algebraic structures. Most of your work will involve proofs. The course is mainly intended for majors but all are welcome.

The course will include a study of the following topics.

- i. Arithmetic revisited
- ii. Congruences and Modular Arithmetic
- iii. Rings and Fields
- iv. Polynomial arithmetic
- v. Groups

Details of the syllabus will be posted later on my homepage.

Prerequisites: Math 330; an acquaintance with mathematical proofs such as that provided by Math 373 is **strongly recommended**.