(3-0-1; —) **Groups, Rings, and Fields** MATH-313*

The course builds on Math 212*, although dealt with at a more abstract level. Topics include: symmetries of polyhedra, group actions on sets, the Sylow theorems, simple groups, polynomial rings, quotient rings, fields and field extensions. This course builds towards Galois theory, and is a prerequisite for Math 314*.

Textbook: *Contemporary Abstract Algebra*, 5th Edition
by J. Gallian (Houghton & Mifflin)

Prerequisite: MATH-212*.

Exclusion: MATH-391*

Instructor: M. Roth

Evaluation:

Final examination	20%
Midterm	10%
Homework	70%