PMATH 347 – Fall 2017
Groups and Rings

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Lectures: MWF 9:30–10:20 RCH 204
Office Hours: Tuesdays 10 – 12
Midterm: Oct. 24, 8:30–9:50pm, QNC 2502
Final Exam: TBA, Dec. 7–21

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Objective: This course is an advanced-level introduction to groups, rings and some of the theory underlying their structure. In group theory students will be exposed to examples of finite groups, group actions, quotient groups, the isomorphism theorems, and the fundamental theorem of finite abelian groups. In ring theory the focus, beyond the foundational material, will be on factorization properties in integral domains in general and in polynomial rings in particular. Upon completion of this course, students will be prepared to take PMATH 348, Fields and Galois Theory.

Marking scheme: Homework 25%, Midterm Test 10%, Final Exam 65%

Text: There is no required book for the course, but I will for the most part follow *Abstract Algebra* by Dummit and Foote, 3rd ed., John Wiley and Sons, 2004. A copy is available at the reserve desk in the Davis Center Library.

Homework Assignments: There will be 8 – 10 short homework assignments, assigned on Fridays and due on the Friday of the following week. Assignments must be turned in by the time I leave the lecture room at the end of Friday's lecture. Late assignments will be marked only at my discretion, and always incurring a penalty. I will drop the lowest assignment mark for each student.

Web: This course does NOT have a web page, assignments will be handed out on paper in class.