

Math 344: Introduction to Group Theory and Applications
Fall 2009

Meeting Time and Place: TR 4:40 - 6:30
385 Neuberger Hall

Instructor: Dr. John Caughman, caughman@pdx.edu

Office Hours: (319 NH) Tues 10:00-11:00, Thurs 1:00-2:00

Web: <http://www.mth.pdx.edu/~caughman/> **Text:** No Required Text.

Course Objectives:

1. Develop your ability to do mathematics: read mathematics, talk about mathematical ideas with others, generalize from examples, make conjectures, prove theorems, and explain your mathematical thinking to others.
2. Develop your understanding of mathematical structures and the pervasive role they play in mathematics.

To achieve these objectives, we will study a particular mathematical structure called a "group." We will explore many examples of groups, investigate their properties, subsets, and special cases, and use functions defined on these structures to analyze and compare them and to build new structures from them.

Homework Assignments: Homework will be assigned regularly. **Late assignments will not be accepted.** As you work on homework exercises, you are encouraged to work with others in the class. **Please remember to credit any person or source that provides help on an assignment.** It will not be possible to grade each individual homework problem. For each assignment, a subset of problems will be selected for grading and your grade will be determined by the quality of your responses to these problems.

Exams: One midterm exam will be given, (probably November 5th). The Final Exam will be given during finals week at the time allotted in the PSU schedule of classes.

Class Participation: You are expected to participate in all aspects of class every day. Your attendance and level of participation in class activities will factor into your class participation grade. This grade will be determined in part by the instructor's observation of your participation. Additionally, at the end of each class, you will submit an "exit card" to provide evidence of your participation: Essentially, you will write your name and the date on a piece of paper along with either a brief description of something significant that you learned during the class session OR a question that you have about the mathematics we worked on during the class session.

Course Grade: 30% Homework, 20% Midterm, 30% Final Exam, 20% Class Participation.