Instructor: Peter Trapa, LCB 118, 5-7671, ptrapa@math.utah.edu

Office hours: By appointment.

Grading: Your course grade will be determined by problem sets (25%), one midterm (25%), and a final exam (50%). This course is designed to prepare graduate students in mathematics for the written preliminary examination in algebra. To this end, if you are such a student, the actual course grade is not relevant; what matters is that you learn the material well enough to pass the prelim.

Text: There will be no required text for this course, but we will loosely follow certain chapters in the book Abstract Algebra, D. Dummit and R. Foote, Prentice Hall, 1999. In addition to this book, I have also put the following two books on reserve: Algebra, S. Lang, 3rd edition, Springer Verlag, 2002; and Advanced Modern Algebra, J. Rotman, Prentice Hall, 2002. These are more comprehensive references and you may find that consulting them provides a good complement to the lectures (and to the Dummit and Foote book).

Content: This term we will cover topics drawn from the theory of group actions (including the Sylow theorems), elementary category theory, linear and multilinear algebra, representation theory of finite groups, and the structure of finitely generated modules over a PID.

ADA Statement: The American with Disabilities Act requires that reasonable accommodations be provided for students with physical, sensory, cognitive, systemic, learning, and psychiatric disabilities. Please contact me at the beginning of the semester to discuss any such accommodations for the course.