

Mathematics 322  
Introduction to algebra  
Section 101  
Leonard S. Klinck Building 460

- Instructor: Z. Reichstein
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- Course website: <http://www.math.ubc.ca/~reichst/322syll.html>

**Textbook:** Joseph Gallian, Contemporary Abstract Algebra, 8th edition

**Course description:** Math 322-23 is UBC's undergraduate honours abstract algebra sequence. Math 322 is devoted entirely to group theory, with an emphasis on finite groups. The topics I plan to cover are as follows.

- Preliminaries on integers, congruences, sets, maps and equivalence relations.
- Definition and first properties of a group,
- Cyclic and permutation groups.
- Subgroups, cosets, and Lagrange's Theorem.
- Homomorphisms, normal subgroups, quotients, and simple groups.
- Group actions, p-groups and Sylow theorems.
- Finite abelian groups.

If time permits, I may cover additional topics from the text at the end of the term.

**Evaluation:** Homework assignments will be posted on the course website and collected in class. Late homework will not be accepted. The solutions you turn in should be your own, written in your own words. There will be two midterms and a final exam. The midterms are scheduled for Thursday, October 10 and Thursday, November 7. The final exam will be scheduled by UBC; its time and place will be announced later in the term. I will compute the total term mark in two ways,

Total 1 := Homework (20%) + Midterm 1 (20%) + Midterm 2 (20%) +  
Final exam (40%),

and

Total 2 := Homework (20%) + Best midterm (20%) + Final exam (60%).

I will use whichever of these two numbers is higher.

**Students with disabilities:** Students with documented disabilities who may need special accommodations should make an appointment with me early in the term.