

Mathematics 423/502
Topics in Algebra
Section 201

- Instructor: Z. Reichstein
- Office: 1105 Math Annex
- Phone: 2-3929
- Course website: <http://www.math.ubc.ca/~reichst/423-502S13syll.html>

Textbook: J. J. Rotman, Advanced Modern Algebra, 2nd edition.

Course description: This course is a sequel to Math. 422/501. It will cover a range of topics in commutative and homological algebra, including some of the algebraic prerequisites for advanced work in number theory, algebraic geometry and algebraic topology. Topics will include the structure theorem for modules over principal ideal domains, Hilbert Basis Theorem, Noether Normalization Lemma, Hilbert's Nullstellensatz and an introduction to affine algebraic geometry, Groebner bases, tensor products, group cohomology.

Evaluation: Course marks will be based on the homework and the term exams. There will be no final exam.