

**Math 602: Basic Algebra**  
**Spring 2002**

**Instructor:** Matthew Dyer

**Textbook:** Algebra by Thomas W. Hungerford **References:**

Basic Algebra I, II by Jacobson

Algebra by Lang

Algré by Bourbaki

Algré Commutative by Bourbaki

Modern Algebra, Vol 1–2 by van der Waerden **Course Content:** The 601/602 sequence generally covers most of the material for the graduate algebra candidacy exam, together with selected additional topics if time permits. In 602, we hope to cover: basic topics on modules not treated in 601 (tensor products, structure theory of modules over a PID and applications to canonical forms of matrices, from Ch IV and VII of text), field theory and Galois theory (Ch V, VI), elementary commutative algebra (Ch VIII) and structure of semisimple rings (Ch IX).