

**Math 422/501**  
**Fields and Galois Theory**  
**September-December, 2016**  
**Course Syllabus**

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**Instructor:** [Dan Collins](#) (Office hours: Tuesdays 4:00-5:00 in LSK 300B, Fridays 12:00-1:00 in LSK 300C)

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**Pre-requisites:** The listed prerequisite is Math 323. You're expected to be comfortable with the basic ideas of abstract algebra, in particular working with groups and rings.

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**Textbook:** The subject matter of the course is pretty standard, and there are plenty of good sources (many of them freely available!) you can learn it from. Some choices:

- *Basic Algebra I (second edition)* by Nathan Jacobson is what's officially listed as "optional" for the course. We're primarily interested in the material in Chapter 4.
  - [Fields and Galois Theory](#) by Jim Milne is a freely-available set of lecture notes. (Milne has well-written notes on a bunch of topics in algebra and number theory - they're a great resource if you're interested in those areas).
  - [Galois Theory](#) by Emil Artin is a freely-available short book written by the mathematician most responsible for the modern view of the subject.
  - [Algebra](#) by Serge Lang is one of the standard textbooks on abstract algebra, and you can download a copy for free through the UBC library. We're primarily interested in Chapters V and VI.
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**Grading:** Grades in this class will be computed with the following weights:

- Homework: 40%
  - Midterm: 20%
  - Final Exam: 40%
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