

Galois Theory

Robert F. Coleman

Lecture 1

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The GSI is Patrick Barrows

Office hours: T 1-2, W 1-3, Th 1-2, and F 2-3, in 937 Evans

Each class, I will give homework assignments, due by the next week, of about 3 problems each, of which 1 or 2 random problems will be graded. Also, each week, on Monday, you must hand in at least one question about the reading or problems (which, I'll try to answer on Friday). Student presentations will be encouraged.

Grading: Questions & Homework 30%, Quizzes and Midterm 30% Final 40%

Text: **Galois Theory** Jean-Pierre Escofier

Galois theory has been used to show:

You can't trisect an angle, solve a quintic, or find solutions to Fermat's equation.

The Quadratic Formula

$$ax^2 + bx + c$$

Cardin's Formula

16-th Century

$$ax^3 + bx^2 + cx + d$$

Tartaglia, Ferrari

“Nature does not allow us to consider others.” s

Read Chapter 1