

Math 602: Abstract Algebra II

Spring 2020

MW - 11:00 am - 12:15 pm

Harris Hall 2104

Instructor: Brent Cody

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Prerequisite: MATH 502

Office Hours: M 12:15 - 1:15 pm

T 3:00 - 4:00 pm

Description:

We will cover the following topics in Dummit and Foote.

Ch. 9 - Polynomial Rings

Ch. 10 - Modules and Tensor Products

Ch. 11 - Vector Spaces, Matrices and Determinants

Ch. 12 - Modules over a PID and Jordan Canonical Form

Ch. 13 - Field Extensions

Ch. 14 - Galois Theory

A major goal of this course is to prove the insolvability of the quintic (Abel's Theorem) using Galois theory.

Book:

Abstract Algebra, Third Edition, By D. Dummit and R. Foote (ISBN 978-0-471-43334-7)

<https://www.amazon.com/Abstract-Algebra-3rd-David-Dummit/dp/0471433349>

Homework:

Homework problems will be posted on Blackboard. Homework will not be collected, but the weekly quiz will consist of a problem or two directly from the homework, or very similar. Although the homework problems are not graded, you are encouraged to get feedback in at least one of the following ways before the quiz:

- come to my office hours to discuss problems,
- send me email about assignments or
- share your work with fellow students.

Quizzes:

There will be a weekly quiz covering material from the previous week (day of week TBD). The quiz will consist of a problem or two directly from the homework, or very similar to homework problems.

Exams:

There will be one midterm exam and one final exam. All are in-class, closed-book exams.

Grading:

Grades will be calculated according to the following weights:

Quizzes (lowest two are dropped) 36%

Midterm 32%

Final 32%

Letter grades will be assigned using the standard scale.

Important dates to remember:

- Last day to withdraw from a course with a mark of “W” is Friday, March 20.

A more complete list of important dates for this semester can be found at <https://academiccalendars.vcu.edu/default.asp>.

University Wide Policies:

Please review VCU’s university-wide policies on things such as the VCU Honor System and disability support at the following URL.

<http://go.vcu.edu/syllabus>