

Math 4363
Modern Algebra II
Spring 2007

Instructor: Dr. Ryan C. Daileda

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Scheduled Lectures: MW 2:30 - 3:45, Marrs McLean Science Building (MMS), Room 110

Office Hours: Tuesday 2:30 - 4:00, Friday 1:00 - 3:00, and by appointment

Textbook: *Contemporary Abstract Algebra* (sixth edition) by Joseph A. Gallian.

Course URL: <http://lagrange.math.trinity.edu/rdaileda/algebra>

Prerequisites: Math 3362 (Modern Algebra I).

Course Content: In this course we will study some of the basic elements of the theory of rings and fields. Topics will include: ideals and quotients; homomorphisms; integral domains (in particular Euclidean, principal ideal, and unique factorization domains); polynomial rings; field extensions; finite fields; Galois theory. Time permitting, we hope to consider various applications as well, such as classical ruler and compass constructions, solvability of polynomials by radicals, and cyclotomic fields. For a more detailed list of topics, you can consult the schedule of lectures on the course web page.

Homework: Homework will be assigned daily and will consist of reading as well as problem solving. All assignments will be posted on the course homework web page. Reading assignments are to be completed daily while written work will typically be turned in once a week. Due dates for written work will be clearly indicated as the work is assigned. **Late homework will not be accepted in the absence of divine intervention or matters of similar weight. Unexcused late and missing papers count zero.**

Homework exercises are to be written *neatly* using *one side* of 8.5×11 inch paper, and multiple pages should be stapled or paper-clipped together. Do not use paper from a spiral notebook unless you can tear off the ragged edge. **Failure to adhere to these guidelines will be penalized. Sloppy work and work written on the backs of pages will not be graded!**

Collaboration on homework assignments is permitted and encouraged, but **NO COPYING**. In other words, you should feel free to talk to other students while you are in the process of thinking about a problem. However, when it comes time to write up your solution, you should do this by yourself without outside assistance.

Daily Quizzes: Before each lecture a short quiz over the definitions, theorems and examples of the assigned reading will be given. All quizzes will count equally toward the quiz component of your final grade (see “Grades” below), however *your two lowest quiz scores will be dropped*.

Exams: There will be two evening midterm exams during the semester as well as a cumulative final exam held during the scheduled exam period. The dates and times for the exams are as follows:

First Midterm Exam	February 15, 7:00 - 9:00 PM
Second Midterm Exam	March 27, 7:00 - 9:00 PM
Final Exam	May 2, 2:00 - 5:00 PM

If you have a legitimate conflict with these exam times, contact me as soon as possible. Please do not wait until shortly before the exam. Be aware that **the final exam will not be given early to accommodate travel plans**.

No assistance of any kind is allowed on exams, except for resources that I may distribute with the tests. This means the use of books, notes, calculators, computers, PDAs, cell phones, etc. will not be permitted during exams. The only things you need to bring with you on the day of any exam are a pencil, an eraser and a positive attitude.

Grades: Your course grade will be based upon the scores on the homework, daily quizzes, midterm exams, and the final exam as follows:

Homework	150 points
Quizzes	50 points
Midterm Exams (2)	100 points (each)
Final Exam	200 points
Total	600 points

Expectations: I expect each student to invest 2 to 3 hours of work and thought outside the classroom for every hour of lecture. Even though written work will only be collected once a week, **you are strongly encouraged to keep up with reading and problems as they are assigned**. I have no sympathy for students who routinely save all of their work for the night before it is due.

Academic Integrity: All students are covered by a policy that prohibits dishonesty in academic work. The Academic Integrity Policy (AIP) covers all students who entered Trinity before the fall of 2004. The Academic Honor Code covers all those who entered the fall of 2004 or later. The Integrity Policy and the Code share many features: each asserts that the academic community is based on honesty and trust; each contains the same violations; each provides for a procedure to determine if a violation has occurred and what the punishment will be; each provides for an appeal process. The main difference is that the faculty implements the AIP while the Code is implemented by the Academic Honor Council. Under the Integrity Policy, the faculty member determines whether a violation has occurred as well as the punishment for the violation (if any) within certain guidelines. Under the Code, a faculty member will (or a student may) report an alleged violation to the Academic Honor Council. It is the task of the Council to investigate, adjudicate, and assign a

punishment within certain guidelines if a violation has been verified. Students who are under the Honor Code are required to pledge all written work that is submitted for a grade: “On my honor, I have neither given nor received any unauthorized assistance on this work” and their signature. The pledge may be abbreviated “pledged” with a signature.

Special Needs: If you have a documented disability and will need accommodations in this class, please speak with me privately early in the semester so I may be prepared to meet your needs. If you have not already registered with Disability Services for Students, contact the office at 999-7411. You must be registered with DSS before I can provide accommodations.