

**Math 3362**  
**Modern Algebra I**  
**Fall 2006**

**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:** MW 4:00 - 6:30 PM, T 10:00 - 11:00 AM, F 12:30 - 2:30 PM and by appointment.

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

**Prerequisites:** Math 3323 (Linear Algebra) and 2326 (Introduction to Abstract Mathematics).

**Course Content:** I plan to cover the basics of the theory of groups and rings, which includes most of chapters 1 through 18 of the textbook. This should put us in a good position for the study of field and Galois theory in the spring semester. Time permitting, I would also like to touch on some of the “Special Topics” of Part 5 of the book, specifically the Sylow theorems, groups defined by generators and relations, and groups of symmetries.

**Homework:** Homework will be assigned after each lecture and will consist of reading as well as problem solving. All assignments will be posted on the course web page with due dates clearly indicated. Homework will typically be turned in once a week, and will be collected at the beginning of class on the day it is due. **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 problems are to be written neatly, using proper grammar and complete sentences, on one side of  $8.5 \times 11$  inch paper. Multiple pages should be stapled or paper-clipped together. I don't typically carry a stapler around with me, so be sure to staple your work before you come to class. Do not use paper from a spiral notebook unless you can tear off the ragged edge. **Failure to adhere to these guidelines may be penalized.**

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.

**Class Participation:** In addition to handing in written work, students will also be responsible for presenting homework solutions to the class. Each student will have to go to the board, explain their

work and respond to questions from the students in the audience. These presentations will take place on the days that homework is due, after everyone's assignments have been collected. I will ask for volunteers to present a problem or two each week, and **I expect each student to appear at the board at least once during the semester**. As such, your participation will count as one assignment's worth of your homework score.

**Exams:** There will be two in-class midterm exams during the semester as well as a cumulative final exam held during the scheduled exam period. The dates for the exams are as follows:

<b>First Midterm Exam</b>	October 4
<b>Second Midterm Exam</b>	November 8
<b>Final Exam</b>	December 9, 8:30 AM

If you have a legitimate conflict with these exam dates, please 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, midterm exams, and the final exam as follows:

<b>Homework</b>	100 points
<b>Midterm Exams (2)</b>	100 points (each)
<b>Final Exam</b>	200 points
<b>Total</b>	500 points

Your letter grade will be based on the percentage of points that you earn, using the standard ten-points-per-letter scale (fractional scores will be rounded *down* to the nearest integer):

<b>Percentage</b>	<b>Letter Grade</b>
92 to 100	A
90 to 91	A-
88 to 89	B+
82 to 87	B
80 to 81	B-
78 to 79	C+
72 to 77	C
70 to 71	C-
68 to 69	D+
60 to 67	D
Below 60	F

**Attendance:** Roll will not be taken, but I consider attendance to be mandatory. Excessive absences (more than two or three) should be explained to me. **I reserve the right with prior written warning to drop students from the course for poor attendance.**

**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.