

Modern Algebra I**Instructor:** Dr. Ryan C. Daileda

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URL: <http://www.trinity.edu/rdaileda>**Scheduled Lectures:** MWF 12:30 PM - 1:20 PM, Marrs McLean Science Building (MMS), Room 141**Office Hours:** Consult the course web site.**Textbook:** TBA**Course URL:** <http://www.trinity.edu/rdaileda/algebra>**Prerequisites:** Math 3326 (Introduction to Abstract Mathematics)**Course Content:** The main objective of this course is to study various topics in the theory of groups. At the very least this will include subgroups and cosets (including Lagrange's theorem), homomorphisms and the isomorphism theorems, normal subgroups and quotient groups, cyclic groups and permutation groups (including Cayley's theorem), and the Fundamental Theorem of Finite Abelian groups. Towards the end of the course we will also touch on elementary aspects of rings and fields.**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. **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.

Exams: There will be two or three midterm exams during the semester, probably held in the evenings, as well as a cumulative final exam. Specific dates and times for the midterms will be announced in class and posted on the course web page at least a week in advance. The final exam will be held during the usual final exam period for our class, which is Wednesday, May 5, from noon to 3 pm.**Grades:** Your course grade will be based upon the scores on the homework, midterm exams, and the final exam as follows:

Homework	40%
Midterm Exams	40%
Final Exam	20%

Your letter grade will be determined by the overall percentage you earn as well as by how well the class performs overall, i.e. *there will be a grading curve*. So you can gauge your performance throughout the semester, cutoffs for major grades (A, B, C, D, F) will be determined for each exam and announced in class.

Expectations: Each student is expected to invest a significant amount of work and thought outside the classroom for every hour of lecture. Even though written work will not be collected daily, **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.

Attendance: Attendance is highly encouraged but is not mandatory. Roll will not be taken, but excessive absences should be explained to me.

Use of Previous Exams: Students are permitted to obtain and study exams given in previous offerings of this course. I will (upon request) gladly provide access to copies of exams I have given in the past. However, **previous exams should not be used to judge the content or difficulty of the exams that will be given in this course**.

Academic Integrity: All students are covered by the Trinity University Honor Code that prohibits dishonesty in academic work. Under the Honor 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.

The specifics of the Honor Code, its underlying philosophy, and the norms for sanctioning can all be found on the Academic Honor Council website, accessed through the Trinity Homepage:

http://www.trinity.edu/departments/academic_affairs/honor_code/

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.