

Math 3326
Introduction to Abstract Mathematics

Fall 2013
Dr. Ryan C. Daileda

Course URL: <http://www.trinity.edu/rdaileda/abstract>

Office Hours and Contact Information: Consult the course web page.

Textbook: There is no official text for this course, although there are a number of appropriate resources available in the library and online.

Course Content: This course is first and foremost a course in logical reasoning, mathematical syntax and terminology, and precise communication of mathematical ideas. We will begin with an introduction to formal logic, including fundamental techniques used for proving mathematical statements. From there we will cover selected topics in set theory, abstract algebra, and real analysis.

Homework: Homework will be assigned through the course homework web page. Written work will be assigned after lecture daily but collected only weekly, typically on the Friday following the day it is assigned. **Due dates will be clearly indicated on the course homework web page.** Late homework will not be accepted in the absence of divine intervention or matters of similar weight. **I reserve the right to penalize unexcused late work as I see fit.**

Work submitted for a grade in this course must be written **neatly**, and multiple pages should be stapled together **before** you come to class. Do not use paper from a spiral notebook unless you can tear off the ragged edge. Moreover, grading will be especially rigorous, with attention paid not only to mathematical content, but also specifically to effective communication. This includes grammar, spelling, punctuation, etc. **Failure to adhere to these guidelines will be penalized. Unorganized, sloppy, illegible or incoherent work will not be graded!**

All written homework assignments will carry equal weight toward the homework component of each student's grade (see "Grades" below), with the exception that **each student will have his or her lowest homework assignment score dropped.**

Collaboration on homework assignments is permitted and encouraged, and 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. In other words, **NO COPYING. Attempting to pass off the work of others (regardless of the source) as your own will be considered a violation of the honor code.**

Exams: There will be two evening midterm exams, held approximately during the 6th and 11th weeks of the semester, as well as a cumulative final exam held on Friday, December 13, 12:00 - 3:00 PM. Dates, times and locations of the midterm exams will be announced in class and posted on the course web page. Please 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 that 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.

Use of Previous Exams: Students are permitted to obtain and study exams given in previous offerings of this course. However, **previous exams should not be used to judge the content or difficulty of the exams that will be given in this course.**

Grades: Your overall score in the course will be based upon your scores on the homework, midterm exams, and the final exam. The point values are as follows:

| | |
|--------------------------|-------------------|
| Homework | 200 points |
| Midterm Exams (2) | 100 points (each) |
| Final Exam | 200 points |
| Total | 600 points |

So you can gauge your performance throughout the semester, a score distribution will be posted online following each exam.

Expectations: I expect each student to invest a significant amount of time and effort outside the classroom for every hour of lecture. To effectively study for this course it is essential that you keep careful lecture notes and thoroughly complete written assignments. Even though written work will not be collected daily, **you are strongly encouraged to keep up with homework as it is assigned.** I have no sympathy for students who routinely save all of their work for the night before it is due.

This course serves as a bridge to every upper-division mathematics course. The workload and high standards expected of students in Introduction to Abstract Mathematics are to ensure that everyone who passes this course has the best opportunity for future success in mathematics courses.

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

Classroom Decorum: Please be respectful of your classmates and myself. Although I encourage everyone to ask me questions as needed, and would like to foster classroom discussion, talking or texting between students during a lecture can be extremely distracting and should be kept to a minimum. The 2.5 hours we spend in class each week should be dedicated to learning mathematics, and is not a forum for expressing general frustrations with the course. Please bring any such concerns directly to me during office hours.

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.