

**MATH 3330 - 04 (21112) - Abstract Algebra – Spring 2020
UPDATED Syllabus (as of March 23, 2020)**

Instructor: Dr. Gordon Heier

Contact Information:

Office: 666 PGH

Office Hours: remotely, by appointment

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and via UH Blackboard

TA: Huayang Chen

Contact Information: remotely, by appointment

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Lectures: Lectures will be posted on Blackboard in an "asynchronous" way (starting the week March 30 - April 3). Students will be notified by email once a new lecture has been posted. Lectures may be posted as PDF files or in a video file format.

Exams: Midterm Exam: Thursday-Friday, March 26-27, as a 4 hour take-home exam
Final Exam: to be determined

Text: Dan Saracino, Abstract Algebra: A First Course, 2nd Edition, Waveland Press, Inc., ISBN: 9781577665366

Course Purpose: An introduction to abstract algebraic structures, emphasizing group and ring theory

Course Objectives: Upon completion of this course, students may take Advanced Abstract Algebra (Math 4333) or Graph Theory with Applications (Math 4315)

Course Content: Sets, Cartesian products and binary operations, Properties of Integers including Principle of Mathematical Induction, Congruences, Division and Euclidean Algorithms and the Fundamental Theorem of Arithmetic;

Groups, cyclic and normal subgroups, isomorphisms and homomorphisms. finite permutation groups, normal subgroups and quotient groups;

Rings, integral domains and fields.

Homework will be assigned every Thursday (starting April 2) on BLACKBOARD and will be due the following Thursday at 1pm on Blackboard. Late homework will not be accepted.

Quizzes: Every Tuesday (starting April 7) a pop-quiz will be conducted through Blackboard in the time period 10am-5pm. After downloading the pop-quiz, you will have 1 hour to work on it and upload your solution to Blackboard.

File formats for submissions: The ONLY acceptable file format for any submissions by students is PDF. Students should ensure that they have access to a scanner or scanner app on a mobile device at all times. In particular, files in JPG format are NOT acceptable.

Attendance: Participation in all aspects of this course is mandatory for all students. Substantial documentation is necessary to receive any kind of excuse or make-up privilege.

Grades: The pop-quizzes and the midterm exam will each account for 25 percent of your grade. The homework will account for 20 percent, and the final exam will account for 30 percent. Your two lowest homework scores and your two lowest pop-quiz scores will be dropped.

Disability: If you think or know that you have a disability that needs special accommodation, please see me at the beginning of the semester so that the proper steps can be taken.

Academic Dishonesty will not be tolerated and dealt with appropriately.

UH CAPS Statement:

Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS (www.uh.edu/caps) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis. No appointment is necessary for the “Let's Talk” program, a drop-in consultation service at convenient locations and hours around campus.

http://www.uh.edu/caps/outreach/lets_talk.html