

**MATH 3330 - 04 (21112) - Abstract Algebra – Spring 2020  
Syllabus**

**Instructor:** Dr. Gordon Heier

**Contact Information:**

Office: 666 PGH

Office Hours: Tuesday 3pm-4pm, or by appointment

Email: [heier@math.uh.edu](mailto:heier@math.uh.edu)

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**TA:** Huayang Chen

**Contact Information:** Office hour: W 3pm-5pm, Fleming 11 (MUSL), or by appointment

Email: [hychen@math.uh.edu](mailto:hychen@math.uh.edu)

**Lecture:** TTh 1:00PM - 2:30PM, in CBB 122

**Exams:** Midterm Exam: Thursday, March 19, 2020, in-class (subject to change)

Final Exam: Tuesday, May 5, 2020, 2pm-5pm (subject to change)

**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 on my web site and will be due the following Thursday. Late homework will not be accepted.

**Quizzes:** Several unannounced in-class pop-quizzes will be given throughout the semester.

**Attendance:** Attending classes and exams is mandatory for all students. Missing class makes a student liable to missing important information, pop-quizzes etc. 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](http://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](http://www.uh.edu/caps/outreach/lets_talk.html)