MTH 358
Abstract Algebra
Fall 2019

Course information

Room: BH 330

Time: MWF 11:20 am - 12:10 pm

Credits: 3.0

Prerequisites: A grade of C or better in MTH 220 and MTH 288 or permission of the instructor

Description: This course is an introduction to group theory. We will begin with a review of equivalence relations, integers and modular arithmetic. Next we will introduce the notion of group and study specific examples, such as cyclic groups, permutation groups, and groups of symmetries. We will explore general concepts such as group isomorphisms and homomorphisms, cosets, normal subgroups, and quotient groups. Further topics will include, time permitting, finite abelian groups and group actions.

Learning outcomes: Successful MTH 358 students will be able to:

- recognize group structures and discuss their basic properties;
- work with specific families of groups, such as cyclic groups and permutation groups;
- effectively communicate mathematical ideas and arguments, especially in the context of modern algebra.

Online resources: Visit Blackboard for up-to-date information about this course.

Instructor

Name: Federico Galetto

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Phone: 216-687-4696

Office: Rhodes Tower 1528

Office hours: MTR 1:30 - 2:30 pm, or by appointment

Materials

Notes and other materials will be distributed on Blackboard. In addition, the following textbook is required. It can be downloaded for free and a print copy can be purchased from the CSU bookstore or online for a low price.

Required textbook:
- Thomas W. Judson, *Abstract Algebra, Theory and Applications*, Orthogonal Publishing, 9781944325060
http://abstract.ups.edu

Grading

Grade calculation: All grades will be posted on Blackboard. Your percentage grade will be computed according to the following breakdown and converted to a letter grade as indicated below.

30%	Homework	A	93%-105%			
20%	Quizzes	A-	90%-92%	C+	76%-79%	
30%	Tests (x2)	B+	87%-89%	C	70%-75%	
25%	Final exam	B	83%-86%	D	60%-69%	
105%	Total	B-	80%-82%	F	0%-59%	

Homework:
- A single homework problem will be assigned each lecture and will be due by the following lecture.
- All assignments must be submitted on Blackboard by the due date. Your work must be submitted as a single PDF file.
- Every assignment will be graded on a scale from 0 to 10, and will be evaluated for both correctness and clarity.
- Late submissions will incur a penalty of 1 point per day for the first five days after the due date. Assignments submitted six or more days after the due date will receive a grade of 0.
- You are expected to work independently on all assignments.

Quizzes:
- A quiz will be held in class every Friday, unless otherwise noted or a test is scheduled.
- Quizzes will contain a short assessment of recently covered topics.

Tests: There will be two tests held in class on the following (tentative) dates:
- Friday, September 27, 2019
- Friday, November 1, 2019

Topics will be announced in class. You are required to bring student identification. Should you miss a test because of an excused absence, the percentage of that test will be added to the final exam.

Final exam: A cumulative final exam will be held in BH 330 on Wednesday, December 11, 2019, 10:15 am - 12:15 pm. You are required to bring student identification.

Participation: Active participation is encouraged and can contribute positively to your grade. Such participation includes answering questions in class, asking good questions in class, etc.

Grade appeal: You are responsible for checking corrections on quizzes and tests, and for ensuring grades are reported correctly on Blackboard. Any appeal request must be submitted within one week after the grade is posted.

Policies

Attendance: You are expected to attend all classes. If you are unable to attend a class, it is your responsibility to notify your instructor in advance and to inquire about any topics covered and announcements made during that class.

Electronic devices: The use of electronic devices such as (but not limited to) phones, smartwatches, computers, tablets, and headphones is prohibited during class, unless otherwise indicated. If you wish to use an electronic device for note taking, you need to receive explicit consent from your instructor and you may occasionally be asked to submit a sample of your notes.

Excused absence from tests: You may only be excused from a test in case of university sanctioned activities (such as conferences, competitions, etc.) or in case of medical conditions. With the exception of unforeseen medical emergencies, you must notify your instructor of your absence and present sufficient documentation in advance. Sufficient documentation includes an invitation to attend an event or a doctor's note indicating you cannot take the test on the scheduled date.

Extra credit and makeups: There is no extra credit in this class. There are no makeup tests/assignments in this class.

Academic integrity: Cheating and/or plagiarism will not be tolerated. Cheating includes copying or receiving help from another student on quizzes, tests or exams, as well as allowing another student to copy from your work. Receiving help from someone else by using an electronic device such as a mobile phone or a smartwatch constitutes cheating. Copying another student's homework, or allowing someone else to do your homework for you, is also considered cheating. If cheating occurs in a quiz or test, the student will receive a grade of 0 for that component of the course. If a student cheats a second time during the course, the student will receive an F for the course. If cheating occurs on the final exam, the student will receive a grade of F in the course. Any cheating activity may be reported for further action. Information regarding the official CSU Policy on Academic Misconduct can be found at https://www.csuohio.edu/sites/default/files/3344-21-02_0.pdf.

Accommodations: Educational access is the provision of classroom accommodations, auxiliary aids and services to ensure equal educational opportunities for all students regardless of their disability. Students who feel they may need an accommodation based on the impact of a disability should contact the Office of Disability Services at 216-687-2015. The Office is located in BH 147. Accommodations need to be requested in advance and will not be granted retroactively.

Course modifications: The instructor retains the right to modify the contents of the course, including grading criteria and course policies. Reasonable notice will be given for all time sensitive matters. Course changes will be communicated in class and on Blackboard.