



MTH 334-Introduction to Abstract Algebra Course Syllabus: Summer II 2015

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Office Hours: TBA.

Class Schedule: TR 2:00 – 5:50 pm

Location: BIN 301

COURSE INFORMATION

Free -Textbook:

Abstract Algebra: Theory and Applications, Thomas W. Judson.
(<http://abstract.ups.edu/>)

Technology:

- We will be using the Magma computer algebra system to understand and construct groups and related structures.
- Students may use a TI 83/84 or equivalent calculator for this course.

Course Description:

This course covers properties of integers, sets, groups, permutation groups, cyclic groups, Lagrange's Theorem, subgroups, normal subgroups, quotient groups, external direct product of groups, homomorphism and isomorphism of groups, and introduction to rings and fields.

Prerequisite: MATH 331, Discrete Mathematics, Minimum of C grade.

Student Learning Outcomes:

Upon completion of the course, students will be able to:

1. Demonstrate knowledge and understanding of groups, subgroups, and order of an element in finite groups.

2. Demonstrate knowledge and understanding of the concept of cosets of a subgroup of a group and normal subgroups.
3. Demonstrate knowledge and understanding of symmetric groups, cyclic groups and their properties.
4. Demonstrate knowledge and understanding of direct product of groups.
5. Demonstrate knowledge and understanding of the concept of quotient groups.
6. Demonstrate knowledge and understanding of the concept of group homomorphism and isomorphism.

COURSE REQUIREMENTS

Instructional: Lecture.

Attendance: It is expected that you attend classes daily and it is your responsibility to sign the daily class roll sheet. It is expected that you follow the guidelines set forth by the Class Attendance Policy in the current undergraduate catalogue.

Exams: There will be one midterm exam, take home quizzes and a comprehensive final exam for this course.

Mid term Exam : Take Home

Final Exam: Thursday August 13th: Class time

Home work/Quizzes: You are encouraged to try all the homework problems. There will be weekly take home quizzes.

COURSE GRADES

Grading policy: The course grade consists of

Midterm Exam:	200 points
5 Quizzes:	200 points
Final Exam:	300 points

Total:	700 points

Grading Scale:

A: 90 – 100%, B: 80 – 89%, C: 70 – 79%, D:60 – 69%, F: 0 – 59%

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Withdrawal Policy:

Concerning the deadlines and consequences of withdrawals please check on:

<https://ems.tamuc.edu/MasterCalendar/MasterCalendar.aspx>

Make-up work:

No late tests will be given. If you miss a test, the final will be used to replace that score. No late homework will be graded and weekly quizzes will not be repeated if missed. However, a percentage of the homework and quiz grades will be dropped to cover days when an absence is unavoidable.

Getting Help:

You are welcome and encouraged to use office hours if you need any help during the semester. Further you can find free tutors at the Math Skills Center located in Binnion Hall 328.

Academic Integrity:

Texas A&M University –Commerce has explicit rules and regulations governing academic dishonesty and academic misconduct. These policies are stated in details in the student’s Guide Handbook. Each students is expected to read this document and abide by the contained polices. These university polices will be followed in class. The minimum penalty an act of academic dishonesty will be a grade of 0 on the examination or homework assignments.

University Specific Procedures

ADA Statement

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Nondiscrimination Statement

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).