

# Fall 2016 Texas A & M-Commerce Math 543 – Abstract Algebra I

This is the syllabus for the web based course Math 543, Section 01W for Fall 2016. Please read it carefully. You will be responsible for all information given in the syllabus, and for any modification to it that may be announced during the semester.

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Office hours: MTWR: 11:00am-12:00 pm,

M: 3:30pm- 4:30pm, and by appointment.

**Class meetings and room:** This is a web based class.

**Text and references:** Abstract Algebra, 3<sup>rd</sup> Edition, by D. Dummit and R. Foote.

**Course Description:** Groups, Subgroups, quotient Groups and Homomorphisms, Group Actions. Prerequisite: Math 334.

**Learning Outcomes:** Upon successful completion of this course, the students will be able to:

1. Define, and interpret basic concepts, fundamental properties and the algebraic structures of groups, subgroups, quotient groups, group homomorphisms and group actions.
2. Verify and prove some important theorems in group theory including Lagrange's Theorem, Cayley's Theorem, isomorphism theorems, and the classifications of finite groups with small number of elements.
3. Define and explain the basic concepts, properties and examples of subgroups, cyclic groups, symmetric groups, and dihedral groups.
4. Define, explain and analyze basic concepts and properties and examples concerning cosets, normal subgroups, and quotient groups.

**Instruction:** Students will complete the course and learn the material by participating in guided activities including guided reading, discussing, online searching and writing, practicing and testing.

**Attendance/Participation:** No class to attend so actively participating in all guided study (reading books, watching video, searching on internet, writing study notes, doing homework, participating in group discussions and taking tests) is the key to success in this class.

**Tests:** There will be two midterm and a final exams for the course. The tentative schedules for the exams are:

Test 1: Sept. 27, Tuesday 3:30pm-4:45pm.

Test 2: Oct. 25, Tuesday 3:30pm-4:45pm.

**Final exam:** The comprehensive final exam is scheduled on  
**Dec 13, Tuesday, 4:30pm-6:30pm.**

**All tests and final exam will be taken face-to-face.** Students can choose to take tests/final exam at Commerce campus or a testing center of a college or university at their convenience with the approval of the instructor.

**No makeup** exam will be given unless you have verifiable evidence showing an acceptable reason to have to miss a test and, in that case, you must notify the instructor before the test or in the earliest possible time.

**Homework & Quizzes:** Homework assignments are given in the weekly study guide. You are strongly recommended to work out homework assignments on a regular basis since **No one can learn mathematics without doing it!** The assigned homework of the week will be collected for grading on the following Monday starting from the second week of the semester. You need to scan your homework in ONE pdf file and turn it in before 5:00pm every Monday. Some homework problems or their similar forms will be used as test questions. Pop quizzes are expected from time to time.

**Course grades:** The course grade consists of

Homework & Quizzes:	15%
Two Tests :	50%
Final exam:	35%.

The letter grades will be assigned using the following scale:

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

**Withdrawal Policy:** Concerning the deadlines and consequences of withdrawals please check on:

<http://www.tamuc.edu/admissions/registrar/academicCalendars/default.aspx>

**Classroom Behavior:** “All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment” (See Student’s Guidebook). 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.

**Academic Integrity:** This course has a **NO TOLERANCE** policy for cheating and if you are caught cheating you will fail this course. Cheating in this course includes the following:

- Giving or receiving answers during an exam or quiz.
- Viewing the exam or quiz answers of nearby classmates.
- Having notes/practice work available during quizzes or tests.
- Possession or access to test items before the test is given.
- Deception in getting an excused absence to obtain the undeserved opportunity to make-up work.
- Use of cell phones or text messaging technology during exams or quizzes. You may not use the calculator on your cell phones.
- Improper citations in written works, or using another person's ideas and words as your own without giving proper credit.
- **Any** method, no matter how well rationalized or accepted, which improves a person's grade by any means other than study and skillful performances on exams and/or other assignments.

Students found guilty of an act of academic dishonesty in this course will be subject to receiving an "F" in this course.

**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/ Gee Library  
Room 132 . Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148, and  
Web: [StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)**

**Campus Concealed Carry** Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

**Getting help:** A better way to learn math is to keep progress and leave no gaps in one's study. So please get help as soon as you need it. You are welcome to come to my virtual office or use email communication for help.