

## MAT 423: Modern Algebra I

**Instructor:** Edith Adan-Bante

**Office Hours:** 10-12 Wednesday or by appointment. Email me at [Edith.Bante@usm.edu](mailto:Edith.Bante@usm.edu)

**Textbook:** Contemporary Abstract Algebra, Joseph A. Gallian.

**Course description:** 3 hours. Elementary notions in groups, Fundamental Theorem of Finitely Generated Groups, permutation groups, quotient groups, isomorphism theorems and applications of transformation groups.

**Course Policies:** Students are expected to attend all classes. Homework assignments will be given every Monday and they will be collected the next Monday. Some of the exercise will be graded and returned on the next class. If an assignment or test worth  $n$  points is turned  $d$  days late, then  $dn/50$  points, 2 % per day, up to a maximum of  $n/2$  (50 %) will be subtracted from the points that would have been earned if the assessment had been turned in when due. A student will not be allowed to drop this class after Wednesday, October 4, the LAST DAY TO DROP A CLASS WITHOUT ACADEMIC PENALTY, unless the student is withdrawing from the University (all classes).

**Final written project:** There will be a final written project. This will be either a survey in cryptography with emphasis in RSA or any topic that is of special interest to the student and algebra is relevant to that topic.

If student has a disability that qualifies under the American with Disabilities Act (ADA) and requires accommodations, he/she should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies. Mailing address: 118 College Drive # 8586, Hattiesburg, MS 39406-0001; Telephone (601) 266-5024; TTY (601) 266-6837; Fax (601) 266 6035.

**Content:** We will cover Part 1 and Part 2 of the textbook. If time allows, we will also cover some Chapters of Part 5.

**Grading policy:** The average of the homework is 60 % of the grade. The final exam is comprehensive and it is 25 % of the grade. The final written project is 15 % of the grade. Tentatively, the grading scale is the following: 90-100 A; 80-89; B 70-79 C; 60-69; 0-59 F

**Email list:** Please provide me with an email address. I will be sending emails regarding homework and the project.

**Final Exam:** As in the final examination schedule posted by USM.

**Academic Honesty Statement:**

Students are expected to adhere to the highest standards of academic honesty as outlined in the USM Student Handbook. Any information that is copied from another source must be noted as such in student materials. Page number or internet reference section must appear in the reference section of the paper/assignment. Other forms of academic dishonesty include, but are not limited to buying papers, copying paragraphs/pages of text/whole papers off the Internet, copying another student's answers, etc. Academic dishonesty will result in the grade "0" on the assignment and/or in the course and/or the student may be reported the Vice President for Academic Affairs for further action.