

Lamar University  
Department of Mathematics

MATH 3350-01: Modern Algebra (3 hour course)  
Fall 2017  
Syllabus  
MWF 12:40 am - 1:35 pm in Lucas 212

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**Office Hours:** MWF 9 - 10 am. Tuesday 11 am - noon. Other times are available by appointment.

**Electronic Communication Policy:** I will respond to all electronic communication, whether through email, Facebook or other social media, within two business days. **In order for me to respond to any message, the message needs to include your name and which class you are in.** Without that information, I cannot respond in an appropriate and timely way. **Please do not send messages via Blackboard. I do not get alerts about these messages and usually do not see them for days or weeks.**

**Course Website:** All worksheets, solutions, and handouts will be posted to our Facebook course page. Documents will also be uploaded to Blackboard and some assignments will be submitted through BB. Information will be updated each day after class.

**Textbook:** *Abstract Algebra: Theory and Applications* by Thomas Judson (electronic version, available at <http://abstract.ups.edu>)

**MATH 3350:** An introduction to abstract algebraic structures concentrating mainly in group theory. Topics in group theory include cyclic groups, normal subgroups, quotient groups, homomorphisms, isomorphisms, permutation groups, the Sylow theorems, and the structure theorem for finite abelian groups. Offered: Fall

**Prerequisites:** Grade of C or better in Math 3322 or its equivalent

**Prepares for:** Math 3351

**Lectures/Discussions:** Class will be a mixture of discussion, group work on in-class assignments, presentations by students, and lecture by the faculty member. Because much of the course content will be presented by your classmates or developed in groups in class, it is exceptionally important that you attend every class and be on time.

## A Note About Success in Mathematics Courses

Mathematics is not a spectator sport. You must participate in the course and in the learning environment to get the most out of this course. Therefore, part of your grade will depend on you doing so - being active and involved.

The material for this course builds on itself. If you find yourself behind, it will be very difficult to catch up. However, I am dedicated to your success in this course and will help you as much as I can. To that end, you should take advantage of office hours. If you cannot make office hours, please let me know and we'll schedule an appointment. Remember, though, that you need to take charge of your learning. You will likely know if you are falling behind before I, as the instructor, realize it.

Our goals for this course are the content goals listed above, but even more, I am interested in making you strong critical thinkers and problem solvers. You will learn modern algebra, but you will also learn how to solve new problems and how to justify your work. You will also learn how to critically examine solutions posed by your classmates. These skills are as important as the mathematics.

### Grading Policies

*Class Attendance and Vocabulary Quizzes:* Vocabulary quizzes will be given each day in class, at the beginning of the period. You will be asked to provide a definition (or, sometimes, theorem) that we have discussed or used in class, or that you have read for homework. These quizzes will be quick and will be graded according to the following scale:

- 2 points - both definitions/theorems stated correctly before time is called
- 1 point - both definitions/theorems stated correctly during "correction" period
- 0 points - errors in definitions or excused absence
- 1 points - unexcused absence

Your total points earned (or lost) on these quizzes will be added to your exam during each part of the course.

*Attendance Policy:* Roll will be taken every class period in the form of the vocabulary quizzes mentioned above - it is important for you to understand the value of class attendance and accept the personal responsibility involved. You are expected to be in class on time and to stay for the entire period. As mentioned below, late work will not be accepted and there will be no make-up quizzes or exams. Tardiness will also not be tolerated and extra time will not be allowed for quizzes

or exams if you are late. Students who are perpetually tardy will be asked not to attend class unless they can arrive on time.

*Homework* will be assigned each day in class. Your homework average will count for 20% of your final course grade. Problems marked with an asterisk (\*) will be submitted and will be due each Monday at the beginning of class. Other problems should be completed and may appear later in course discussions or on exams. Problems may be resubmitted once (the following Monday) for an improved grade. Your grade on each problem will be the average of the (up to) two scores for each problem. Each problem will be scored out of 4 points:

- 0 - not attempted or no relevant work submitted
- 1 - some attempt made, but little progress to problem
- 2 - reasonable attempt made, but problem not completed or major mistake appears
- 3 - mostly correct solution submitted, but with some small mistakes
- 4 - completely correct solution

No late homework is accepted. If you fail to submit problems when they are due the first time, you may submit them on the rewrite date, but your score on the problems will be the average of your score on the problem and 0.

Homework is intended to give you practice and familiarity with problems such as the ones that we will be discussing in class and will encounter during exams. Mathematics is only learned and understood through practice and, therefore, ignoring homework assignments will negatively affect your course grade. These problems will also serve as jumping-off points for class discussions, and will help you have a deeper understanding of the material.

**Course summaries** are due at the beginning of class every Monday. These will count for 10% of your course grade. **Every Monday at the beginning of class**, you will submit a written summary of what occurred in class during the previous week. This will be well-written in complete sentences. Your summary should include definitions of important terms as well as a summary of ideas. It does not need to include all information presented, but it should be able to be used as a summary for a classmate if he or she had missed the week's classes. It should not rely on notation or jargon, but express things clearly without relying on notation. The last part of this assignment should mention any questions you still have about the topic. Think of these as you writing yourself a summary of the class, to be used to study for an exam or the final. These will be uploaded to Blackboard prior to the start of Monday's class.

**Exams:** There will be two *exams* during the semester plus the final exam. The exams are scheduled for Friday, 29 September and Friday, 3 November. Any changes to this schedule will be announced in class and posted to Facebook. No make-up exams will be given under any circumstances. To compensate for this, with instructor permission and an excused absence, the final exam may replace

the missed exam **IF** the next exam is taken and passed at the regularly scheduled time. Each exam will count for 20% of your final course grade.

**Final Exam:** The final exam will occur in two parts: the first on Friday, 8 December (covering examples) and the second on Monday, 11 December, 2017 during normal class time (covering proofs. No make-up exams will be given. The final exam is cumulative. The final exam will count for 30% of your final course grade.

**Course grades will be calculated using the following weights:**

Homework	Summaries	Exam 1	Exam 2	Final Exam
20%	10%	20%	20%	30%

**Course grades will be assigned according to the standard ten-point scale. In particular:**

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

**No extra credit will be given as the semester progresses, so keep up as we go along.**

**Class Behavior:** Since the material we will study in our course is difficult and we will move at a fast pace, it is important that during class we are all focused and attentive to learning and practicing the skills on which you will be tested. To help you achieve your goal of success, I must insist that students do not behave in a way that disrupts the learning environment and the concentration of other students. If I believe that something you are doing is disruptive to the learning of other students, or if it is disrupting my ability to teach effectively, I may ask you to leave class, and you will receive a zero for participation and attendance that day. Lamar University is a tobacco-free campus.

**Cell Phone Policy:** In order to limit classroom disruptions, as well as to protect against academic misconduct, the use of cell phones and other electronic communication devices is prohibited in the classroom. Students should be paying attention during class, and therefore all cell phones, pagers, and any other unnecessary technology, must be turned off or put in a silent (vibrate) mode and should not be taken out during class. If you are seen using technology inappropriately, you will be asked to stop, and your course grade will be reduced by  $2^{n-2}$  points, where  $n$  is the number of times any student in the class has inappropriately used technology.

**Additional Information:** While I have made a sincere effort to ensure that this syllabus is correct, changes may be required. I will announce any substantive changes during a regularly scheduled class, and those changes will be posted to our Facebook group. If you find an error or omission, please advise me at once so that the other members of the class may be advised.

**Inclusivity Statement:** I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability ? and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.

### **Important Information for Students**

Lamar University expressly prohibits intimidation and harassment of students, faculty, staff, or applicants. <http://dept.lamar.edu/studentaffairs/handbook.htm>

**Drop Policy:** Please make note of the three dates indicated in this drop policy. Any drop will be your responsibility; I will not drop a student from the course.

**September 20, 2017:** (Census Date-Six Drop Rule does not apply) A student may drop or withdraw without consulting with the instructor. The Six Drop Rule does not apply to a drop before 5:00 PM. **October 6, 2017:** (Six Drop Rule applies) A student may drop or withdraw from the course without academic penalty and receive a Q, however, the Six Drop Rule applies. The student will consult with the instructor and the Records Office to initiate a drop. **November 10, 2017:** (Six Drop Rule applies) Last day to drop or withdraw with academic penalty; the student must be passing the course at the time of the requested drop in order to receive a Q. The drop form, including all required signatures, must arrive in the Records Office by no later than 4:00 PM. No drop is allowed after this date except in extreme extenuating circumstances. Any “late drop” must be approved by the instructor, department chair, college dean, and provost.

**Academic Integrity:** Students are expected to maintain complete honesty and integrity in their academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. Students are specifically warned against all forms of cheating and plagiarism. The *Lamar University Student Handbook* clearly reads: “Any student found guilty of academic dishonesty in any phase of academic work will be subjected to disciplinary action. Punishable offenses include, but are not limited to, cheating on an examination or academic work which is to be submitted, plagiarism, collusion, and the abuse of source materials.” One aspect of the Handbooks definition of cheating includes “purchasing or otherwise acquiring and submitting as ones own work any research paper or other writing assignment prepared by an individual or firm.” Plagiarism is defined as “the appropriation and the unacknowledged incorporation of anothers work or ideas into ones own and submitted for credit.” Faculty members in the College of arts and Sciences investigate all cases of suspected plagiarism. Any student who is

found cheating in this course will receive a course grade of F. <http://students.lamar.edu/student-handbook.html>

**Accommodations:** Lamar University is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center (DRC) is located in the Communications building room 105. Office staff collaborate with students who have disabilities to provide and/or arrange reasonable accommodations. If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact the DRC at 409-880-8347 or [drc@lamar.edu](mailto:drc@lamar.edu) to arrange a confidential appointment with the Director of the DRC to explore possible options regarding equitable access and reasonable accommodations. If you are registered with DRC and have a current letter requesting reasonable accommodations, we encourage you to contact your instructor early in the semester to review how the accommodations will be applied in the course. <http://www.lamar.edu/disability-resource-center/>

**Incomplete Grades:** The grade of “I” may be given when any requirement of the course, including the final examination, is not completed. Arrangements to complete deficiencies in a course should be made with the instructor prior to the end of the semester or term. Incomplete work must be finished during the next long semester or the Records Office will change the “I” to the grade of “F.” While the extension may be granted by the instructor with the approval of his/her Department Chair and Academic Dean, once the “I” is changed to an “F” it cannot be changed back to an “I.” In this case, either a “change of grade” procedure must be initiated or the course must then be repeated if credit is desired. The instructor may record the grade of “F” for a student who is absent from the final examinations and is not passing the course.

**Campus Closure:** In the event of an announced campus closure in excess of four days due to a hurricane or other disaster, students are expected to login to Lamar University’s website’s homepage for instructions about continuing courses remotely. <http://lamar.edu>

**Emergency Procedures:** Many types of emergencies can occur on campus; instructions for severe weather or violence/active shooter, fire, or chemical release can be found at: <http://www.lamar.edu/about-lu/administration/risk-management/index.html>

Following are procedures for the first two:

- Severe Weather:
  - Follow the directions of the instructor or emergency personnel.
  - Seek shelter in an interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside.
  - If you are in a multi-story building, and you cannot get to the lowest floor, pick a hallway in the center of the building.
  - Stay in the center of the room, away from exterior walls, windows, and doors.

- Violence/Active Shooter:
  - CALL - 8-3-1-1 from a campus phone (880-8311 from a cell phone). Note: Calling 9-1-1 from either a campus phone or cell phone will contact Beaumont City Police Dispatch rather than University Police.
  - AVOID- If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
  - DENY- Barricade the door with desks, chairs, bookcases or any other items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it is safe.
  - DEFEND- Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.

**Course Evaluations:** You will have an opportunity to evaluate all aspects of this course in a formal process to be completed online near the end of the term. You will receive an email reminder through your LU account.