Math 361: Elementary Modern Algebra I
Fall 2019

Instructor: Max Kutler

Email: `max.kutler@uky.edu`

Office: POT 707

Office Hours: 11 AM–12 PM MTR, and by appointment

Class Meetings: 10–10:50 AM, MWF, Whitehall Classroom Building 337

Course Webpage: `http://www.ms.uky.edu/~mbku225/math361/`.

Required Text: John B. Fraleigh, *A First Course in Abstract Algebra*, 7th ed.

Prerequisite: MA 261

Workload: An average, well-prepared student should expect to spend 12 hours per week on this course, outside of regular class meetings. This includes time spent on homework exercises, reviewing lecture notes, reading the text, and studying for exams.

Course Content: This is a first course in abstract algebra. Broadly, algebra is the study of sets endowed with certain binary operations. In this course, we shall study the algebraic structures called groups, rings, and fields. Examples include the set of symmetries of a regular polygon, the set of polynomials with integer coefficients, and the complex numbers. While we will frequently think about such concrete examples, one aim of this course is to become familiar with abstract concepts and to prove theorems that apply in wide generality.

A strong emphasis will be placed on communicating mathematics clearly and effectively, especially in writing.

Homework: There will be two homework assignments due each week. Problem sets will typically consist of two to four exercises from the text. Solutions must be written clearly, legibly, and with appropriate style. See, e.g., *Guidelines for Good Mathematical Writing* by Francis Su.

You are encouraged to discuss the homework with other members of the class. If you do so, you should acknowledge their assistance on your submitted homework. Furthermore, you should feel free to use sources beyond your textbook, personal notes, and past homework when crafting your solutions. You must, however, cite any such sources, and you must write up all of your final solutions on your own.

Graded homework may in some cases be rewritten and resubmitted at a later date. Details about these "rewrites" will be given in class. This policy is intended to provide an opportunity to solidify your understanding of the key ideas you will encounter throughout the course. You are therefore strongly encouraged to take advantage of the opportunity to submit rewrites of your graded homework.

Grading: Your grade will be based on homework, two midterm exams, and a cumulative final exam. Whichever of these four elements receives the highest score will count for 40% of your course grade; the remaining three elements will count for 20% each.

The grading scale will be roughly the following:

A	85%–100%
B	65%–84%
C	45%–64%
D	35%–44%
E	0%–34%

Exams: We will have two in-class midterm exams and a final exam.

1. Exam 1: **Monday, September 30**

2. Exam 2: **Monday, November 4**

3. Final Exam: **Monday, December 16 at 1:00 PM**

Attendance: Regular attendance is expected and is vital to success in this course. While you will not be explicitly graded on attendance, repeated absences will likely impact your ability to keep up with the course material.

Except in the event of an excused absence, as outlined by UK Senate Rule 5.2.4.2, no late work will be accepted and no make-up exams will be given. You must notify me in writing at least one week in advance for all scheduled absences, including for major religious holidays. To excuse unscheduled absences, contact me no later than one week after the absence. I require appropriate documentation.

You are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed, per University policy.

You are responsible for announcements made in class, as well as any emails sent to your UK email account.

Special Accommodations: If you are currently registered with the Disability Resource Center for a documented disability, please present your Letter of Accommodation to me as soon as possible and at least one week in advance of the first exam. For more information regarding services available to students with disabilities, visit `http://www.uky.edu/DisabilityResourceCenter/`.

Academic Integrity: Students are expected to adhere to university policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties up to suspension from the university may be imposed.

Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at `http://www.uky.edu/Ombud`. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty.

Plagiarism includes reproducing the work of someone else (including, but not limited to, a friend's homework, an online resource, a chapter of a book, or a published article) without clear attribution. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work, which a student submits as his/her own, whoever that other person may be. You are encouraged to work together on assignments and get help from me or other tutors, but all written work must be completed by you and written in your own words. If you feel unsure about the question of plagiarism regarding your work, please consult with me before submitting the assignment.

Changes to this Syllabus: A current version of this syllabus may be found at the course webpage. This is the syllabus as of August 20, 2019.