

## MATH 310: Abstract Algebra & Number Theory – Section 4

**Instructor:** Katherine Raoux

**Office:** Wells Hall C207

**email:** raouxkat@msu.edu

**Webpage:** [users.math.msu.edu/users/raoux/](http://users.math.msu.edu/users/raoux/)

**Office hours:** TBA

**Course Meets:** MWF 10:20-11:10 AM in Wells Hall A308

**Text:** *Abstract Algebra, An Introduction*, Thomas W. Hungerford, 3rd edition.

**Prerequisites:** MTH 299 or MTH 317H or approval of department and completion of Tier I writing requirement.

We will learn about the structure of the integers, congruences, rings, ring homomorphisms, ideals and quotient rings. Time permitting, we may also discuss basic properties of groups. This is a writing intensive course with an emphasis on proofs.

**Homework:** I will assign and collect homework on a weekly basis. Assignments and their due dates will be posted on the course webpage and announced in class. Your homework should be written neatly (or typed) and stapled. Homework assignments should be handed in at the beginning of the class period on the due date unless prior arrangements have been made. **No late homework will be graded.** At the end of the semester I will drop your lowest homework score when computing your average homework grade.

Working in small groups on homework assignments is permitted and encouraged; however, I expect students will observe the following principles (adapted from Haverford College mathematics department “Guidelines for collaboration”):

1. Any use of other people’s ideas should be acknowledged.
2. Collaboration on a homework assignment is an exchange of ideas. Therefore, for each assignment you turn in, you should acknowledge your collaborators. I expect that you will annotate your homework problems with the names of your collaborators for the set, or for each problem.
3. Even if you are collaborating with another student or group of students, the work you turn in must be solely your own!

A good strategy is to start by reading, understanding and thinking about the problems on your own. Then, meet with your collaborators to discuss and form complete solutions. During these meetings take notes and make a rough draft of your solutions. Afterwards, on your own, write the final draft of your solutions.

**Exam dates:** We will have two in class midterm exams and a final exam. There will be no make-up exams except in the case of a medical emergency (documentation must be provided).

- **Midterm 1:** Friday 10/5 in class
- **Midterm 2:** Friday 11/9 in class
- **Final Exam:** Friday 12/14, 7:45 am – 9:45 am, Wells Hall A308

If you find it necessary to miss an exam, you must contact the instructor in advance of the exam to explain the circumstances.

**Grades:** Your grade in the course will be comprised the following: *homework (20%)*, two *midterm exams (25% each)*, and a *final exam (30%)*.

Anticipated grading scale:

|           |     |
|-----------|-----|
| 90 – 100% | 4.0 |
| 85 – 90%  | 3.5 |
| 80 – 85%  | 3.0 |
| 75 – 80%  | 2.5 |
| 70 – 75%  | 2.0 |

**Academic integrity:** The Spartan Code of Honor states, “As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing the endeavor to build personal integrity in all that I do.” In addition, Article 2.III.B.2 of the Student Rights and Responsibilities (SRR) states that “The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards.” MTH 310 adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site: [www.msu.edu](http://www.msu.edu).) Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, quizzes, and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the [www.allmsu.com](http://www.allmsu.com) website to complete any course work in this course. Students who violate MSU academic integrity rules may receive a penalty grade, including a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also the Academic Integrity webpage.)

**Accommodations for students with disabilities:** Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at [rcpd.msu.edu](http://rcpd.msu.edu). Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation (“VISA”) form. Please present this form to me at the start of the term and/or two weeks prior to the accommodation date (test, project, etc.). Requests received after this date may not be honored.