Math 395: Algebra III
Fall 2019

The course website is `https://www.uvm.edu/~cvincen1/math395.html`.

Instructor Information: Professor Christelle Vincent, office E445 in Innovation Hall.

For content (i.e. mathematical) questions, please post your question to Coursewire at `https://campuswire.com/c/GA767885C`. For personal matters, please reach me by email at christelle.vincent@uvm.edu.

Textbook: Dummit and Foote's *Abstract Algebra* 3rd edition.

Course Description and Goals: In Math 395 we will study group theory (Chapters 1-6) and field theory (Chapters 13-14), as well as a little bit of ring theory, as needed to study field theory. Please see the tentative course schedule posted online for a list of sections covered. The goal of the course is to give the student a strong foundation in abstract algebra, as well as to prepare for the qualifying exam in abstract algebra.

Office Hours: I will have three hours of office hours each week, they are TBA.

Attendance: You are expected to attend every lecture. If for whatever reason you cannot attend lecture, you are responsible for asking a classmate to tell you what you have missed. If you miss a quiz, you will get a score of zero on that quiz.

Religious accommodations: Students have the right to practice the religion of their choice. If you believe you might need accommodations to take part in religious celebrations, please submit in writing to me by the end of the second full week of classes your religious holiday schedule for the semester. Together we will work on arranging a way to make up any work you might miss. For all homework and quizzes, you will be expected to turn in your work on time, or in advance, as necessary, except in very special circumstances.

SAS: In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact SAS, the office of Student Accessibility Services (previously ACCESS). Once you have your accommodation letter from them, I will be available to meet with you privately to discuss the accommodations you plan to use in this course.

Grading: Your grade for this class will be based on your performance in the following activities, weighted as follows:

Homework: 25%
Quizzes: 20%
Midterm: 25%
Final Exam: 30%

Homework: Homework will be due every Friday at 4pm, except the week of the midterm. Homework **must** be typeset, and turned in electronically on BlackBoard.

Except for Homework 1, the homework will consist of six qualifying exam problems, and will be graded as follows:

10/10 for six complete problems
9.5/10 for four complete problems and substantial progress on the other two problems
8.5/10 for nine complete lettered parts
6/10 for six complete lettered parts
3/10 for three complete lettered parts

You are encouraged to work on the homework with your peers. However, the work you turn in must be your own! If your homework substantially resembles the work of another student's, you will both receive a grade of zero on this assignment.

Your lowest homework score will be dropped. There will not be make-up homework or any late homework.

Quizzes: Every Friday, except for the first two weeks, you will be asked to solve one problem, by yourself, during class. You will have 30 minutes to write down your solution. You will not have access to any notes. You will have to choose the problem you work on from a list of problems, which will be a subset of the problems due in the homework that day.

Each quiz will be graded as follows:

10/10 for a complete problem
9/10 for substantial progress
8/10 for some progress
3/10 for some useful notions

There will not be any any make-up quizzes under any circumstances. However, your two lowest scores will be dropped.

Midterm: There will be an in-class midterm on Wednesday October 9. It will cover all of the material we will have covered in class until then (Chapters 1-6, group theory). You will not have access to any notes. You will need to solve two problems from a list of qualifying exam problems.

The midterm will be graded as follows:

10/10 for two complete problems
9/10 for a complete problem and substantial progress on the other problem
8/10 for substantial progress on both problems
7/10 for some progress on both problems, or substantial progress on one problem
6/10 for some useful notions on both problems
3/10 for some useful notions on one problem

Exams: There will be a university-scheduled final exam. It will consist of six qualifying exam problems.

The Final Exam will be graded as follows:

10/10 for six complete problems
9.5/10 for four complete problems and substantial progress on the other two problems
8.5/10 for nine complete lettered parts
6/10 for six complete lettered parts
3/10 for three complete lettered parts

The final exam is on December 12, from 10:30am to 1:15pm, in Waterman 456.

If you have a conflict with our final exam in this class, you must inform me in writing at least one week before the last day of classes.

If an emergency occurs and you need to miss the exam, you must notify me in writing within 24 hours of the exam. Please include the reason and documentation.

Statement on diversity: Mathematics can be learned and enjoyed by everyone, regardless of gender, age, race, sexual orientation, or other personal characteristics. As a group we will work to create a space where we all feel welcomed and encouraged, and any actions or speech that detract from this atmosphere will not be tolerated.

In particular, we will be mindful of encouraging others to let us know if they do not already know something and do everything to support them in their learning. We will not say that things are "trivial." We will offer corrections gently and with the intention of helping the other, as opposed to making ourselves feel good.