

Math 686R: Section 1

Summer 2017

Instructor:	Darrin Doud	Classroom:	323 TMCB
Office:	322 TMCB	Time:	12-2 PM MWF
Phone:	422-1204		
Office Hours:	2:00-2:50 PM MWF		
	or by appointment		

Textbook: *Class Field Theory*, by Nancy Childress

Course Description: Class field theory is the study of abelian extensions of number fields. In particular, it gives a beautiful description of how to describe the collection of all abelian extensions of a number field K using only the arithmetic of K . A full understanding of the material will require knowledge of algebraic number theory at the level of Math 586; we will review this material briefly during the first day of the class.

Student Lectures: During the term, each student will give two one-hour lectures, either on the material from the textbook, or on supplemental material. These lectures will be spread out throughout the term, so that we will have approximately one each week. Each of these two lectures will count for 10% of your grade in the class.

Homework: Homework will be assigned each class day. We will discuss the homework in class after it is assigned, and it should be turned in within one week of being assigned. You are encouraged to work together on homework, but each student should understand the solutions and turn in his own assignment. Scores on the homework will count for 70% of your grade.

Final Exam: The final exam will be an oral exam, during the scheduled final time: Wednesday, August 16, between 3:00 and 5:00 PM. The final exam will comprise 10% of your grade.

Office Hours: I will hold office hours from 2-2:50 PM on Monday, Wednesday, and Friday. If for any reason these hours are not convenient, please make an appointment for another time.

Internet: I encourage you to contact me by e-mail if you have questions. My e-mail address is doud@math.byu.edu, and I check my mail multiple times per day. There is a Math 686R web page at

<http://www.math.byu.edu/~doud/Math686R>

which will contain homework assignments and a list of useful resources.

BYU Honor Code: In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and my own expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

Preventing Sexual Discrimination and Harassment: Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment. BYU's policy against sexual harassment extends not only to employees of the university, but to students as well. If you encounter unlawful sexual harassment or gender-based discrimination, please talk to your professor; contact the Equal Employment Office at 422-5895 or 367-5689 (24-hours); or contact the Honor Code Office at 422-2847.

Students with Disabilities: Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability which may impair your ability to complete this course successfully, please contact the Services for Students with Disabilities Office (422-2767). Reasonable academic accommodations are reviewed for all students who have qualified, documented disabilities. Services are coordinated with the student and instructor by the SSD Office. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures by contacting the Equal Employment Office at 422-5895, D-285 ASB.