

MATH 8802: Algebra Comp Prep Course

Georgia Institute of Technology
Late Summer 2019

Instructor: Stephen McKean	Time: MW 2:00 – 4:30
Email: mckean@math.gatech.edu	Place: CULC 323

Course Dates: This course is during Late Summer term, so the class will run from June 19th to July 22nd.

Course Page: Handouts and other study materials will be posted on [my website](#).

Office Hours: Tuesdays from 1:00pm to 3:00pm in CULC 250 or by appointment in Skiles 137.

Textbook: Any textbook at the level of *Abstract Algebra* by Dummit and Foote will be a useful reference.

Objectives: This course is designed to help graduate students in Mathematics (both Masters and PhD students) prepare for the written comprehensive exam in algebra. Students will prepare for the comprehensive exam by working (individually and in groups) on problems at the difficulty of past algebra comprehensive exams.

Suggested Prerequisites: MATH 6121 and 6122. The course is not meant to be a course covering the material from the syllabi of the written algebra exam, and students taking this course are expected to have already taken advanced coursework in abstract algebra at the level of MATH 6121 and 6122.

Grading Policy: Grades are pass/fail. If you participate in most lectures, you will receive a passing grade.

Tentative Course Outline: See the [comprehensive exam page](#) for a detailed list of exam topics.

Week 1: Review of key definitions and theorems

Week 2: Linear algebra and vector spaces

Week 3: Groups

Week 4: Rings and modules

Week 5: Fields and Galois theory

Week 6: Practice comprehensive exam

Academic Integrity: All students are expected to comply with the [Georgia Tech Academic Honor Code](#).

Students with Disabilities and/or in need of Special Accommodations: Georgia Tech complies with the regulations of the Americans with Disabilities Act of 1990 and offers accommodations to students with disabilities. If you are in need of classroom or testing accommodations, please make an appointment with the [ADAPTS Office](#) to discuss the appropriate procedures.