

MA 721: ABSTRACT ALGEBRA II, SPRING 2019

Instructor: Tye Lidman

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Course Location: 1220 SAS Hall

Course Time: TuTh 10:15-11:30AM

Office: SAS 3246

Office Hours: Tu 1:30-2:30, W 11-12

Course description: Modules, homological algebra, representation theory.

Major course objectives:

- Develop expertise with modules and representations
- Analyze algebraic objects using homological techniques

Prerequisites: MA 521.

Textbook: *Algebra*, Hungerford (Graduate Texts in Mathematics).

Grading:

Homework Assignments: 30%

Midterm Exam: 30%

Final Exam: 30%

Miscellaneous: 10%

Exams:

Midterm Exam: Thursday, February 21, in class.

Final Exam: Thursday, May 2, 8-11AM, SAS 1220

Assignments: Homework assignments will be due Thursdays at the end of class. Late homework will in general not be accepted. The lowest two scores will be dropped to compensate for the strict policy.

Homework must be legible, clearly organized, and coherent or you will not receive credit. There will be a high standard for rigor and mathematical exposition in this class, exceeding that of undergraduate courses. Homework may be handwritten, but LaTeX is greatly preferred. Typesetting things in LaTeX is an important skill to develop early in your career and is much faster than handwriting.

You are welcome to work in groups, exchange ideas and help each other understand how to approach problems, but the work you turn in must be your own! You must cite in your work any sources other than the course materials that you have used (this includes the names of other students you have worked with on an assignment, Wikipedia, etc).

Learning Environment: It is my intent that students from all diverse backgrounds and perspectives be well-served by this course and that the diversity that the students bring to this class be viewed as a resource and benefit. It is my intent to present materials and activities that are inclusive, and your suggestions are encouraged and appreciated. To help accomplish this:

- It is important to actively participate in the course, which includes asking lots of questions and correcting the work of others (including me). At the same time, it is important to do this in a way that is respectful and encouraging.
- If you have a name and/or set of pronouns that differ from those that appear in your official records, please let me know.
- If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me.

- I (like many people) am still in the process of learning about diverse perspectives and identities. If something was said in class (by anyone) that made you feel uncomfortable, please talk to me about it.

Academic integrity: All students are required to comply with the university policies on academic integrity in the code of student conduct policy (NCSU POL 11.35.1). While I strongly recommend forming study groups and checking your answers with your classmates on homework or worksheets, all work submitted must be your own. This includes copying others' work or answers on homework and exams. The purpose of the homework is to learn the material. Any violation will be considered cheating.

Non-discrimination policy: NC State affirms its commitment to maintain an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, gender identity, or sexual orientation is a violation of state and/or federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, gender identity, or sexual orientation also is a violation of state and/or federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at <http://policies.ncsu.edu/policy/pol-04-25-05> or http://www.ncsu.edu/equal_op. Any person who feels they have been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 919-515-3148.

In addition, if class activities conflict with religious events, please let me know so that we can make arrangements.

Electronic privacy: Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web-postings, where relevant to the course.

Students with disabilities: Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Disability Services Office at Suite 2221, Student Health Center, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG 02.20.01). Your experience in this class is important to me. Please communicate your approved accommodations to me as soon as possible so we can discuss your needs in this course.

Mental Health: The Counseling Center at NC State is an important resource. They have a diverse staff trained to address academic, emotional and social concerns. They are available 24/7 at (919) 515-2423.

Disclaimer: This document, and consequently the terms of the course, may be modified as needed throughout the course. Any changes will be announced with reasonable notice.