

Course Information for Math 332 Winter 2019

Abstract Algebra II

Primary Text:

[Humphreys, A Course in Group Theory, ISBN-10: 0198534590](#)

Other Useful References:

- Thomas W Hungerford, Abstract Algebra: An Introduction (2nd Revised edition), ISBN: 0030105595 or 9780030105593. (Don't confuse this book with the graduate-level text "Algebra" by the same author) Used copies are available from multiple vendors, including [Better World Books](#), [AbeBooks.com](#), and [smile.amazon.com](#). As of today (November 20'th, 2018), there are multiple copies available for under \$10. The more expensive 3'rd edition is also fine.
- Charles Pinter, [A Book of Abstract Algebra, second edition](#).
This is just a book of problems, not a regular text. The problems have a nice range of difficulty, and partial solutions. Consider getting it if you need to see more concrete examples.
- Judson, Abstract Algebra: Theory and Applications.
This book is [free online](#) and less than \$30 [in hardback](#).

Learning Goals:

At the end of this course, you should be able to read and write clear, mathematically sound proofs at an advanced undergraduate level. More advanced courses and textbooks will be accessible because of your familiarity with fundamental theorems about groups, rings, and other algebraic structures.

Instructor:

Eric Schmutz, 264 Korman, Eric.Jonathan.Schmutz@drexel.edu.

Office hours will announced in class. You are welcome to stop by anytime, with or without an appointment. However I can only promise to be available if you make an appointment or come during the scheduled office hours.

Course Calendar:

Week	Topic	Reading	Events
W1: Jan.7-13	Groups,subgroups	Ch 1,2,3,4	
W2: Jan.14-20	Cosets	Ch. 4,5,7	HW1 due Mon Q1 Fri.
W3: Jan.21-27	Normal subgroups, Quotients	Ch.7,8 Ch.7,8	Mon Hol. HW2 due Fri.
W4: Jan.28-Feb.3	Permutations	Ch.9	HW3 due Fri
W5: Feb.4-Feb.10	Orbit Stabilizer Theorem	Ch10.	Exam 1 Mon
W6: Feb.11-Feb.17	Sylow's Theorems	Ch.11,12	
W7: Feb.18-24	Direct Products, Class.Thm.FAG	Ch.13,14	HW4 due Mon
W8: Feb.25-Mar.3	Semidirect Productss Wreath Products	Ch. 19	Exam 2 Mon.
W9: Mar.4-Mar.10	Jordan-Holder, Soluble groups	Ch. 15-18	HW5 due Fri
W10:Mar.11-Mar.17	Group Extensions	Ch 20-21	HW6 due Fri
W11:Mar.18-Mar.23			Final Exams

Grades: Here is a tentative grading scheme. I reserve the right to make changes.

Component	Weight
Quizzes and Submitted HW	20%
Exam 1	20%
Exam 2	20%
Final Exam	40%

Policies:

During exams and quizzes, all electronic devices (including cell phones) must be powered down and out of view. Important course information (e.g. change of exam dates, assignments, etc.) may be communicated by email. Make sure you monitor your email and have room in your mailbox to receive new mail. I do not normally offer makeup quizzes exams or exams. Only in exceptional and well-documented circumstances can I excuse you from a missed exam. Talk to me beforehand if at all possible.

Additional Resources and Information:

I adhere to all University policies, including those regarding accommodation of disabilities and those regarding cheating. For more resources and information, see the [Student Handbook](#)

Disclaimer:

This document is provisional. Although I do not anticipate major changes, I reserve the right to modify the course during the term.