

# Math 470: Abstract Algebra

## Spring 2023 Schedule

MW 4 pm to 5:15 pm in Academic Hall 201

Text: Contemporary Abstract Algebra 9<sup>th</sup> Edition by Joseph A. Gallian

January 2023						
◀ December						February ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23 Semester Starts	24 First Class: Introduction and Expectations  What is Abstract Algebra?  Preliminaries	25	26 Ch. 1: Intro to Groups. Examples	27	28
29 Homework o Due at 11:59 pm on Gradescope.	30	31 Ch. 2: Groups. Elementary Properties.				

February 2023						
◀ January						March ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 Ch. 2: Groups. Elementary Properties.  Ch. 3: Finite Groups, Subgroups	3	4
5 Homework 1 Due at 11:59 pm on Gradescope.	6	7 Ch. 3: Finite Groups, Subgroups  Ch. 4: Cyclic Groups	8	9 Ch. 4: Cyclic Groups  Ch. 5: Permutation Groups	10	11
12	13	14 Quiz 1 Ch. 5: Permutation Groups	15	16 Ch. 5: Permutation Groups  Ch. 6: Isomorphisms/ Homomorphisms	17	18
19 Homework 2 Due at 11:59 pm on Gradescope.	20	21 Ch. 6: Isomorphisms/ Homomorphisms	22	23 Ch. 7: Cosets and Lagrange's Theorem	24	25
26	27	28 Ch. 7: Cosets and Lagrange's Theorem  Ch. 8: External Direct Products				

<div> <div>◀ February</div> <div>March 2023</div> <div>April ▶</div> </div>						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 Ch. 8: External Direct Products	3	4
5 Homework 3 Due at 11:59 pm on Gradescope.	6	7 Quiz 2 Ch. 9: Normal Subgroups and Factor Groups (Quotient Groups)	8	9 Ch. 9: Normal Subgroups and Factor Groups (Quotient Groups)	10	11
12	13	14 Ch. 9: Normal Subgroups and Factor Groups (Quotient Groups)  Ch. 10: Group Homomorphisms	15	16 Ch. 10: Group Homomorphisms	17	18
19 Spring Break	20 Spring Break	21 Spring Break	22 Spring Break	23 Spring Break	24 Spring Break	25 Spring Break
26 Homework 4 Due at 11:59 pm on Gradescope.	27	28 <u>Primary Source Project: Holder's Quotient Group Concept</u>	29	30 <u>Primary Source Project: Holder's Quotient Group Concept</u>	31 Cesar Chavez Day-Campus Closed	

April 2023						
◀ March						May ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4 <b>Quiz 3</b> Ch. 11: The Fundamental Theorem of Finite Abelian Groups	5	6 Ch. 12: Introduction to Rings <b>Reid Lecture</b> 6-7pm (Extra credit for attendance)	7	8
9	10 <b>Primary Source Project Due at 11:59 pm on Gradescope.</b>	11 Ch. 12: Introduction to Rings	12	13 Ch. 13: Integral Domains	14	15
16 Homework 5 Due at 11:59 pm on Gradescope.	17	18 Ch. 14: Ideals and Factor Rings (Quotient Rings)	19	20 Ch. 14: Ideals and Factor Rings (Quotient Rings)	21	22
23	24	25 <b>Quiz 4</b> Ch. 15: Ring Homomorphisms	26	27 Ch. 15: Ring Homomorphisms	28	29
30						

May 2023						
◀ April						June ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2 Ch. 16: Polynomial Rings	3	4 Ch. 16: Polynomial Rings	5	6
7 Homework 6 Due at 11:59 pm on Gradescope.	8	9 Ch. 17: Factorization of Polynomials	10	11 Ch. 17: Factorization of Polynomials	12	13
14	15	16 Final Exam 6:15pm to 8:15pm Academic Hall 201	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			