

# Math146 - Abstract Algebra II (Galois Theory) - AY2024-2025 spring

George McNinch

## Course Calendar

Date	DOW	Desc	Seq	Week	Details
01/15	Wed	Meeting	Office hours 0	1	**13:30-14:30 JCC 559
01/15	Wed	Lecture	1	1	Commutative Rings and Fields
01/16	Thu	Meeting	Office hours 0	1	**14:30-15:30 JCC 559
01/19	Sun	Assignment		1	PS01
01/20	Mon	Tufts		2	<b>No classes: MLK Day</b>
01/22	Wed	Meeting	Office hours 1	2	**13:30-14:30 JCC 559
01/22	Wed	Lecture	2	2	Polynomial Rings
01/22	Wed	Tufts		2	<b>Academic Date:</b> Last day to add a course
01/23	Thu	Meeting	Office hours 1	2	**14:30-15:30 JCC 559
01/26	Sun	Assignment		2	PS02
01/27	Mon	Lecture	3	3	Euclidean algorithm
01/29	Wed	Meeting	Office hours 2	3	**13:30-14:30 JCC 559
01/29	Wed	Lecture	4	3	Fields of Fractions & Quotient Rings
01/30	Thu	Meeting	Office hours 2	3	**14:30-15:30 JCC 559
02/02	Sun	Assignment		3	PS03
02/03	Mon	Lecture	5	4	Gauss Lemma
02/05	Wed	Meeting	Office hours 3	4	**13:30-14:30 JCC 559
02/05	Wed	Lecture	6	4	Eisenstein's Criterion
02/06	Thu	Meeting	Office hours 3	4	**14:30-15:30 JCC 559
02/09	Sun	Assignment		4	PS04
02/10	Mon	Lecture	7	5	Fields and field extensions; linear algebra
02/12	Wed	Meeting	Office hours 4	5	**13:30-14:30 JCC 559
02/12	Wed	Lecture	8	5	Simple extensions
02/13	Thu	Meeting	Office hours 4	5	**14:30-15:30 JCC 559
02/16	Sun	Assignment		5	PS05
02/17	Mon	Tufts		6	<b>No classes: Presidents' Day</b>
02/19	Wed	Meeting	Office hours 5	6	**13:30-14:30 JCC 559
02/19	Wed	Lecture	9	6	midterm 1
02/19	Wed	Exam		6	<b>midterm 1</b>
02/19	Wed	Tufts		6	<b>Academic Date:</b> Last day to drop a course without record
02/20	Thu	Meeting	Office hours 5	6	**14:30-15:30 JCC 559
02/20	Thu	Lecture	10	6	Degree of extensions and the Tower Law
02/20	Thu	Tufts		6	<b>Tufts: Monday schedule</b>
02/23	Sun	Assignment		6	PS06
02/24	Mon	Lecture	11	7	Primitive element theorem
02/26	Wed	Meeting	Office hours 6	7	**13:30-14:30 JCC 559
02/26	Wed	Lecture	12	7	Ruler & Compass constructions
02/27	Thu	Meeting	Office hours 6	7	**14:30-15:30 JCC 559
03/02	Sun	Assignment		7	PS07
03/03	Mon	Lecture	13	8	Ruler & Compass & impossibility proofs
03/05	Wed	Meeting	Office hours 7	8	**13:30-14:30 JCC 559
03/05	Wed	Lecture	14	8	The Galois Group and some of its uses

Date	DOW	Desc	Seq	Week	Details
03/06	Thu	Meeting	Office hours 7	8	**14:30-15:30 JCC 559
03/09	Sun	Assignment		8	PS08
03/10	Mon	Lecture	15	9	Splitting fields
03/12	Wed	Meeting	Office hours 8	9	**13:30-14:30 JCC 559
03/12	Wed	Lecture	16	9	Normal field extensions
03/13	Thu	Meeting	Office hours 8	9	**14:30-15:30 JCC 559
03/15	Sat	Tufts		9	<b>No classes:</b> <i>Spring Break</i>
03/16	Sun	Assignment		9	PS09
03/16	Sun	Tufts		9	<b>No classes:</b> <i>Spring Break</i>
03/17	Mon	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/18	Tue	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/19	Wed	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/20	Thu	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/21	Fri	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/22	Sat	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/23	Sun	Assignment		10	
03/23	Sun	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/24	Mon	Lecture	17	11	Separable field extensions
03/26	Wed	Meeting	Office hours 9	11	**13:30-14:30 JCC 559
03/26	Wed	Lecture	18	11	The Galois Correspondence
03/27	Thu	Meeting	Office hours 9	11	**14:30-15:30 JCC 559
03/30	Sun	Assignment		11	
03/31	Mon	Lecture	19	12	midterm 2
03/31	Mon	Exam		12	<b>midterm 2</b>
04/02	Wed	Meeting	Office hours 10	12	**13:30-14:30 JCC 559
04/02	Wed	Lecture	20	12	Linear independence of monomorphisms
04/02	Wed	Tufts		12	<b>Academic Date:</b> <i>Last day to withdraw from a course with W</i>
04/02	Wed	Tufts		12	<b>Academic Date:</b> <i>Last day to select Pass/Fail Option</i>
04/03	Thu	Meeting	Office hours 10	12	**14:30-15:30 JCC 559
04/06	Sun	Assignment		12	
04/07	Mon	Lecture	21	13	Some results on automorphisms
04/09	Wed	Meeting	Office hours 11	13	**13:30-14:30 JCC 559
04/09	Wed	Lecture	22	13	The fundamental Theorem of Galois Theory
04/10	Thu	Meeting	Office hours 11	13	**14:30-15:30 JCC 559
04/13	Sun	Assignment		13	
04/14	Mon	Lecture	23	14	Examples of Galois Groups
04/16	Wed	Meeting	Office hours 12	14	**13:30-14:30 JCC 559
04/16	Wed	Lecture	24	14	Finite Fields
04/17	Thu	Meeting	Office hours 12	14	**14:30-15:30 JCC 559
04/20	Sun	Assignment		14	
04/21	Mon	Tufts		15	<b>No classes:</b> <i>Patriots' Day</i>
04/23	Wed	Meeting	Office hours 13	15	**13:30-14:30 JCC 559
04/23	Wed	Lecture	25	15	Transcendence degree; symmetric polynomials
04/24	Thu	Meeting	Office hours 13	15	**14:30-15:30 JCC 559
04/27	Sun	Assignment		15	
04/28	Mon	Lecture	26	16	Solutions by radicals
04/29	Tue	Tufts		16	<b>No classes:</b> <i>Makeup Day (no classes)</i>
04/29	Tue	Tufts		16	<b>Academic Date:</b> <i>Reading Period</i>
04/30	Wed	Tufts		16	<b>Academic Date:</b> <i>Reading Period</i>
05/01	Thu	Tufts		16	<b>Academic Date:</b> <i>Reading Period</i>
05/02	Fri	Tufts		16	<b>Academic Date:</b> <i>Final Exam Period</i>
05/03	Sat	Tufts		16	<b>Academic Date:</b> <i>Final Exam Period</i>
05/04	Sun	Tufts		16	<b>Academic Date:</b> <i>Final Exam Period</i>
05/05	Mon	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>
05/06	Tue	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>

Date	DOW	Desc	Seq	Week	Details
05/07	Wed	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>
05/08	Thu	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>
05/09	Fri	Exam		17	<b>final exam</b>
05/09	Fri	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>

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