

# Math190 - Topics in Algebra - AY2023-2024 spring

George McNinch

## Course Calendar

Date	DOW	Desc	Seq	Week	Details
01/17	Wed	Lecture	1	1	RT 1: groups & homomorphisms; linear algebra
01/18	Thu	Meeting	Office hours 0	1	**13:00-14:00 Zoom
01/19	Fri	Meeting	Office hours 0	1	**13:30-14:30 JCC 559
01/19	Fri	Assignment		1	no assignment collected
01/22	Mon	Meeting	Office hours 0	2	**13:30-14:30 JCC 559
01/22	Mon	Lecture	2	2	RT 2: representations; irreducibility
01/24	Wed	Lecture	3	2	RT 3: the regular repr; complete reducibility
01/24	Wed	Tufts		2	<b>Academic Date:</b> <i>Last day to add a course</i>
01/25	Thu	Meeting	Office hours 1	2	**13:00-14:00 Zoom
01/26	Fri	Meeting	Office hours 1	2	**13:30-14:30 JCC 559
01/26	Fri	Assignment		2	PSet 01 - RT
01/29	Mon	Meeting	Office hours 1	3	**13:30-14:30 JCC 559
01/29	Mon	Lecture	4	3	RT 4: Classifying representations
01/31	Wed	Lecture	5	3	RT 5: conjugacy classes; characters
02/01	Thu	Meeting	Office hours 2	3	**13:00-14:00 Zoom
02/02	Fri	Meeting	Office hours 2	3	**13:30-14:30 JCC 559
02/02	Fri	Assignment		3	PSet 02 - RT
02/05	Mon	Meeting	Office hours 2	4	**13:30-14:30 JCC 559
02/05	Mon	Lecture	6	4	RT 6: Fourier transform; FFT
02/07	Wed	Lecture	7	4	RT 7: symmetric gps & probability
02/08	Thu	Meeting	Office hours 3	4	**13:00-14:00 Zoom
02/09	Fri	Meeting	Office hours 3	4	**13:30-14:30 JCC 559
02/09	Fri	Assignment		4	PSet 03 - RT
02/12	Mon	Meeting	Office hours 3	5	**13:30-14:30 JCC 559
02/12	Mon	Lecture	8	5	RT 8: using GAP
02/14	Wed	Lecture	9	5	RT 9: follow-up on GAP
02/15	Thu	Meeting	Office hours 4	5	**13:00-14:00 Zoom
02/16	Fri	Meeting	Office hours 4	5	**13:30-14:30 JCC 559
02/16	Fri	Assignment		5	PSet 04 - RT (Gap)
02/19	Mon	Tufts		6	<b>No classes:</b> <i>Presidents' Day</i>
02/21	Wed	Lecture	10	6	ECC 1: Entropy and information channels
02/21	Wed	Tufts		6	<b>Academic Date:</b> <i>Last day to drop a course without record</i>
02/22	Thu	Meeting	Office hours 5	6	**13:00-14:00 Zoom
02/22	Thu	Lecture	11	6	ECC 2: Finite fields; affine and proj spaces
02/22	Thu	Tufts		6	<b>Tufts:</b> <i>Monday schedule</i>
02/23	Fri	Meeting	Office hours 5	6	**13:30-14:30 JCC 559
02/23	Fri	Assignment		6	PSet 05 - ECC
02/26	Mon	Meeting	Office hours 4	7	**13:30-14:30 JCC 559
02/26	Mon	Lecture	12	7	ECC 3: Block codes & asymptotics
02/28	Wed	Lecture	13	7	ECC 4: Linear codes, duals, & decoding
02/29	Thu	Meeting	Office hours 6	7	**13:00-14:00 Zoom
03/01	Fri	Meeting	Office hours 6	7	**13:30-14:30 JCC 559

Date	DOW	Desc	Seq	Week	Details
03/01	Fri	Assignment		7	PSet 06 - ECC
03/04	Mon	Meeting	Office hours 5	8	**13:30-14:30 JCC 559
03/04	Mon	Lecture	14	8	ECC 5: cyclic codes; MDS codes
03/06	Wed	Lecture	15	8	ECC 6:
03/07	Thu	Meeting	Office hours 7	8	**13:00-14:00 Zoom
03/08	Fri	Meeting	Office hours 7	8	**13:30-14:30 JCC 559
03/08	Fri	Assignment		8	PSet 07 - ECC
03/11	Mon	Meeting	Office hours 6	9	**13:30-14:30 JCC 559
03/11	Mon	Lecture	16	9	ECC 7:
03/13	Wed	Lecture	17	9	ECC 8:
03/14	Thu	Meeting	Office hours 8	9	**13:00-14:00 Zoom
03/15	Fri	Meeting	Office hours 8	9	**13:30-14:30 JCC 559
03/15	Fri	Assignment		9	PSet 08 - ECC
03/16	Sat	Tufts		9	<b>No classes:</b> <i>Spring Break</i>
03/17	Sun	Tufts		9	<b>No classes:</b> <i>Spring Break</i>
03/18	Mon	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/19	Tue	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/20	Wed	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/21	Thu	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/22	Fri	Assignment		10	no assignment collected (spring break)
03/22	Fri	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/23	Sat	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/24	Sun	Tufts		10	<b>No classes:</b> <i>Spring Break</i>
03/25	Mon	Meeting	Office hours 7	11	**13:30-14:30 JCC 559
03/25	Mon	Lecture	18	11	FM 1:
03/27	Wed	Lecture	19	11	FM 2:
03/28	Thu	Meeting	Office hours 9	11	**13:00-14:00 Zoom
03/29	Fri	Meeting	Office hours 9	11	**13:30-14:30 JCC 559
03/29	Fri	Assignment		11	PSet 08 - FM
04/01	Mon	Meeting	Office hours 8	12	**13:30-14:30 JCC 559
04/01	Mon	Lecture	20	12	FM 3:
04/03	Wed	Lecture	21	12	FM 4:
04/03	Wed	Assignment		12	Final project proposals due
04/03	Wed	Tufts		12	<b>Academic Date:</b> <i>Last day to withdraw from a course with W</i>
04/03	Wed	Tufts		12	<b>Academic Date:</b> <i>Last day to select Pass/Fail Option</i>
04/04	Thu	Meeting	Office hours 10	12	**13:00-14:00 Zoom
04/05	Fri	Meeting	Office hours 10	12	**13:30-14:30 JCC 559
04/05	Fri	Assignment		12	PSet 09 - FM
04/08	Mon	Meeting	Office hours 9	13	**13:30-14:30 JCC 559
04/08	Mon	Lecture	22	13	FM 5:
04/10	Wed	Lecture	23	13	FM 6:
04/11	Thu	Meeting	Office hours 11	13	**13:00-14:00 Zoom
04/12	Fri	Meeting	Office hours 11	13	**13:30-14:30 JCC 559
04/12	Fri	Assignment		13	PSet 10 - FM
04/15	Mon	Tufts		14	<b>No classes:</b> <i>Patriots' Day</i>
04/17	Wed	Tufts		14	<b>No classes:</b> <i>Makeup Day (no classes)</i>
04/18	Thu	Meeting	Office hours 12	14	**13:00-14:00 Zoom
04/19	Fri	Meeting	Office hours 12	14	**13:30-14:30 JCC 559
04/19	Fri	Assignment		14	no assignment collected
04/22	Mon	Meeting	Office hours 10	15	**13:30-14:30 JCC 559
04/22	Mon	Lecture	24	15	FM 7:
04/24	Wed	Lecture	25	15	FM 8:
04/25	Thu	Meeting	Office hours 13	15	**13:00-14:00 Zoom
04/26	Fri	Meeting	Office hours 13	15	**13:30-14:30 JCC 559
04/26	Fri	Assignment		15	PSet 11 - FM

Date	DOW	Desc	Seq	Week	Details
04/29	Mon	Meeting	Office hours 11	16	**13:30-14:30 JCC 559
04/29	Mon	Lecture	26	16	FM 9:
04/30	Tue	Tufts		16	<b>Academic Date:</b> <i>Reading Period</i>
05/01	Wed	Tufts		16	<b>Academic Date:</b> <i>Reading Period</i>
05/02	Thu	Tufts		16	<b>Academic Date:</b> <i>Reading Period</i>
05/03	Fri	Assignment		16	Final Project Due
05/03	Fri	Tufts		16	<b>Academic Date:</b> <i>Final Exam Period</i>
05/04	Sat	Tufts		16	<b>Academic Date:</b> <i>Final Exam Period</i>
05/05	Sun	Tufts		16	<b>Academic Date:</b> <i>Final Exam Period</i>
05/06	Mon	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>
05/07	Tue	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>
05/08	Wed	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>
05/09	Thu	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>
05/10	Fri	Tufts		17	<b>Academic Date:</b> <i>Final Exam Period</i>

---

## Bibliography