

# Math190 - Topics in Algebra - AY2023-2024 spring

George McNinch

## Lectures

Date	DOW	Desc	Seq	Week	Details
01/17	Wed	Lecture	1	1	RT 1: groups & homomorphisms; linear algebra
01/22	Mon	Lecture	2	2	RT 2: linear characters; representations; irreducibility
01/24	Wed	Lecture	3	2	RT 3: the group algebra & the regular repr; complete reducibility
01/24	Wed	Tufts		2	<b>Academic Date:</b> <i>Last day to add a course</i>
01/29	Mon	Lecture	4	3	RT 4: Classifying representations
01/31	Wed	Lecture	5	3	RT 5: conjugacy classes; characters & class functions; irreducibility criterion
02/05	Mon	Lecture	6	4	RT 6: Fourier transform; FFT
02/07	Wed	Lecture	7	4	RT 7: characters of symmetric groups; applications to probability
02/12	Mon	Lecture	8	5	RT 8: using GAP to investigate representations
02/14	Wed	Lecture	9	5	ECC 1: Entropy and information channels
02/19	Mon	Tufts		6	<b>No classes:</b> <i>Presidents' Day</i>
02/21	Wed	Lecture	10	6	ECC 2: Finite fields; affine and projective spaces
02/21	Wed	Tufts		6	<b>Academic Date:</b> <i>Last day to drop a course without record</i>
02/22	Thu	Lecture	11	6	ECC 3: Block codes & asymptotics
02/22	Thu	Tufts		6	<b>Tufts:</b> <i>Monday schedule</i>
02/26	Mon	Lecture	12	7	ECC 4: Linear codes & decoding; dual codes; designs
02/28	Wed	Lecture	13	7	ECC 5: cyclic codes; MDS codes
03/04	Mon	Lecture	14	8	ECC 6:
03/06	Wed	Lecture	15	8	ECC 7:
03/11	Mon	Lecture	16	9	ECC 8:
03/13	Wed	Lecture	17	9	
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	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	Tufts		11	<b>No classes:</b> <i>Spring Break</i>
03/27	Wed	Lecture	18	11	FM 1:
04/01	Mon	Lecture	19	12	FM 2:
04/03	Wed	Lecture	20	12	FM 3:
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>
04/08	Mon	Lecture	21	13	FM 4:
04/10	Wed	Lecture	22	13	FM 5:
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>
04/22	Mon	Lecture	23	15	FM 6:
04/24	Wed	Lecture	24	15	FM 7:

Date	DOW	Desc	Seq	Week	Details
04/29	Mon	Lecture	25	16	FM 8:
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	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