Math087 - Mathematical Modelling - AY2025-2026 spring

George McNinch

Lectures

Date	DOW	Desc	Seq	Week	Details
01/14	Wed	Lecture	1	1	One dimensional optimization & sensitivity analysis
01/19	Mon	Tufts		2	**No classes:** *MLK Day*
01/21	Wed	Lecture	2	2	Multi-dimensional optimization; Lagrange
01/21	Wed	Tufts		2	**Academic Date:** *Last day to add a course*
01/21	Wed	Tufts		2	**Tufts:** *Monday schedule*
01/26	Mon	Lecture	3	3	Lagrange continued; root finding via Newton's method & variants
01/28	Wed	Lecture	4	3	Types of optimization & linear programming
02/02	Mon	Lecture	5	4	Duality & complementary slackness
02/04	Wed	Lecture	6	4	Network flows
02/09	Mon	Lecture	7	5	integer programming
02/11	Wed	Lecture	8	5	Branch & Bound algorithms
02/16	Mon	Tufts		6	**No classes:** *Presidents' Day*
02/18	Wed	Lecture	9	6	max flow & min cut
02/18	Wed	Tufts		6	**Academic Date:** *Last day to drop a course without record*
02/23	Mon	Lecture	10	7	graph models
02/25	Wed	Lecture	11	7	Bipartite graphs & matching
03/02	Mon	Lecture	12	8	Finite-state machines & Transition diagrams
03/04	Wed	Lecture	13	8	Iteration matrices; eigenvectors & power iterations
03/09	Mon	Lecture	14	9	Markov chains
03/11	Wed	Lecture	15	9	statistics
03/14	Sat	Tufts		9	**No classes:** *Spring Break*
03/15	Sun	Tufts		9	**No classes:** *Spring Break*
03/16	Mon	Tufts		10	**No classes:** *Spring Break*
03/17	Tue	Tufts		10	**No classes:** *Spring Break*
03/18	Wed	Tufts		10	**No classes:** *Spring Break*
03/19	Thu	Tufts		10	**No classes:** *Spring Break*
03/20	Fri	Tufts		10	**No classes:** *Spring Break*
03/21	Sat	Tufts		10	**No classes:** *Spring Break*
03/22	Sun	Tufts		10	**No classes:** *Spring Break*
03/23	Mon	Lecture	16	11	the Central Limit Theorem
03/25	Wed	Lecture	17	11	Monte-Carlo integration
03/30	Mon	Lecture	18	12	Monte-Carlo simulation
04/01	Wed	Lecture	19	12	Binomial & Poisson distributions
04/01	Wed	Tufts		12	**Academic Date:** *Last day to withdraw from a course with W*
04/01	Wed	Tufts		12	**Academic Date:** *Last day to select Pass/Fail Option*
04/06	Mon	Lecture	20	13	Binomial & Poisson distributions
04/08	Wed	Lecture	21	13	Linear least squares
04/13	Mon	Lecture	22	14	Linear least squares
04/15	Wed	Lecture	23	14	
04/20	Mon	Tufts		15	**No classes:** *Patriots' Day*
04/22	Wed	Lecture	24	15	
04/27	Mon	Lecture	25	16	

Date	DOW	Desc	Seq	Week	Details
04/28	Tue	Tufts		16	**Academic Date:** *Reading Period*
04/29	Wed	Tufts		16	**Academic Date:** *Reading Period*
04/30	Thu	Tufts		16	**Academic Date:** *Reading Period*
05/01	Fri	Tufts		16	**Academic Date:** *Reading Period*
05/01	Fri	Tufts		16	**Academic Date:** *Final Exam Period*
05/02	Sat	Tufts		16	**Academic Date:** *Reading Period*
05/02	Sat	Tufts		16	**Academic Date:** *Final Exam Period*
05/03	Sun	Tufts		16	**Academic Date:** *Reading Period*
05/03	Sun	Tufts		16	**Academic Date:** *Final Exam Period*
05/04	Mon	Tufts		17	**Academic Date:** *Reading Period*
05/04	Mon	Tufts		17	**Academic Date:** *Final Exam Period*
05/05	Tue	Tufts		17	**Academic Date:** *Reading Period*
05/05	Tue	Tufts		17	**Academic Date:** *Final Exam Period*
05/06	Wed	Tufts		17	**Academic Date:** *Reading Period*
05/06	Wed	Tufts		17	**Academic Date:** *Final Exam Period*
05/07	Thu	Tufts		17	**Academic Date:** *Reading Period*
05/07	Thu	Tufts		17	**Academic Date:** *Final Exam Period*
05/08	Fri	Tufts		17	**Academic Date:** *Reading Period*
05/08	Fri	Tufts		17	**Academic Date:** *Final Exam Period*