

Week	Date		Topic	Due
Week 1	8-Jan	M	Introduction	
	10-Jan	W	ch 2 What is LASSO	
	12-Jan	F	ch 2 Shrinkage	
Week 2	15-Jan	M	No Class	MLK Jr. Day
	17-Jan	W	ch 2 cross validation	
	19-Jan	F	ch 2 Properties of LASSO	Reading 1
Week 3	22-Jan	M	ch 3 Logistic Regression	
	24-Jan	W	ch 3 Log-linear	
	26-Jan	F	ch 3 SVM	Reading 2
Week 4	29-Jan	M	ch 4 Elastic net	
	31-Jan	W	ch 4 group LASSO	
	2-Feb	F	ch 4 non-convex penalty	Reading 3
Week 5	5-Feb	M	elad 2 LO minimization	
	7-Feb	W	elad 2 mutual coherence	
	9-Feb	F	elad 2 spark	
Week 6	12-Feb	M	elad 3 orthogonal matching pursuit	
	14-Feb	W	elad 3 matching pursuit, basis pursuit	
	16-Feb	F	elad 4 properties of omp	Reading 4
Week 7	19-Feb	M	elad 4 properties of omp	
	21-Feb	W	unconstrained minimization	
	23-Feb	F	line search and convergence	
Week 8	26-Feb	M	newton method and quasi newton	
	28-Feb	W	trust region method	
	2-Mar	F	gradient projection, GPSR	Reading 5
Week 9	5-Mar	M	proximal algorithm, ISTA	
	7-Mar	W	accelerated gradient method, FISTA	
	9-Mar	F	subgradients, convexity review	Project Proposal
Week 10	12-Mar	M	No Class	Spring Break
	14-Mar	W	No Class	Spring Break
	16-Mar	F	No Class	Spring Break
Week 11	19-Mar	M	No Class	SC at Dartmouth
	21-Mar	W	stochastic gradient descent	
	23-Mar	F	KKT conditions, Lagrangian	Reading 6
Week 12	26-Mar	M	duality	
	28-Mar	W	augmented Lagrangian method	
	30-Mar	F	ADMM	
Week 13	2-Apr	M	ADMM examples	
	4-Apr	W	consensus ADMM	
	6-Apr	F	interior point method	Reading 7
Week 14	9-Apr	M	Application: matrix completion	
	11-Apr	W	Application: KSVD	
	13-Apr	F	Application: Sparse coding	
Week 15	16-Apr	M	Application: Compressed sensing	
	18-Apr	W	No Class	SC at ICASSP
	20-Apr	F	No Class	SC at ICASSP
Week 16	23-Apr	M	Application: Denoiser-based ADMM	
	25-Apr	W	Application: Message passing	
	27-Apr	F	Application:	Project Report