Week #	Date	Lecture Topic	Readings	Assignment	Lab
1	28-Mar	Course Overview and Introduction to Machine Learning	Chapters	Assignment #1: Programming & Math Diagnostic	Lab 1: Set up environment: git, linux, python, DB, ssh, VM
	30-Mar	Guest Lecture			
2	4-Apr	ML and Policy Case Studies, Scoping Overview	Case Studies Scoping Overview	Assignment #1 Due	Lab 2: Data Exploration (pandas and SQL)
	6-Apr	Machine Learning Process and Code Pipeline		Assignment #2 out: Simple ML Pipeline	
3	11-Apr	Machine Learning Methods: Supervised Learning 1 Nearest Neighbors, Decision Trees	Chapters		Lab 3: Supervised Learning (using sklearn for the methods covered in class)
	13-Apr	Machine Learning Methods: Supervised Learning 2 Logistic Regression, Support Vector Machines	Chapters	Assignment #2 Due	
4	18-Apr	Evaluation Methodologies I – offline evaluation	Chapters		Lab 4: Supervised Learning and Evaluation (using sklearn for the methods covered in class)
	20-Apr	Project Proposal Presentations	None	Project Proposals Due	
5	25-Apr	Machine Learning Methods: Supervised Learning 3 Ensemble Methods: Bagging, Boosting, Random Forests	chapters	Project Proposal Reviews Due Assignment #3 Out	Lab 5: Supervised Learning (using sklearn for the methods covered in class)
	27-Apr	Machine Learning Methods: Supervised Learning 4 Naïve Bayes, Comparing Classifiers	chapters		
6	2-May	Machine Learning Methods: Unsupervised Learning I Clustering: K-means, Mean Shift, Spectral, …	chapters	Assignment #3 Due Mid-Term Exam Out	Lab 6: Unsupervised learning
	4-May	Machine Learning Methods: Unsupervised Learning 2 Association Rules, PCA, …	chapters		
7	9-May	Feature Development/Engineering	chapters	Mid-Term Exam Due	Lab 7: Feature Generation
	11-May	Evaluation Methodologies II - Experiments	Paper		
8	16-May	Text Analysis	Chapters	Project Updates Due Assignment #4 Out	Lab 8: Text analysis
	18-May	In-Depth Case Study (may need to be rescheduled)	Paper		
9	23-May	Ethics, Privacy, Transparency, Bias	Papers	Assignment #4 Due	Lab 10: Mapping Policy Problems to Machine Learning Problems
	25-May	Network Analysis	Chapters		
10	30-May	Advanced Topics: Reinforcement Learning, Active Learning, Deep Learning	None		No Lab