

Week #	Date	Lecture Topic	Assignment	Lab
1	2-Apr	Course Overview and Introduction to Machine Learning	Assignment #1 out: Diagnostic	Lab 1: Set up environment: git, linux, python, DB, ssh, VM
	4-Apr	ML and Policy Case Studies, Scoping Overview		
2	9-Apr	Machine Learning Process and Code Pipeline	Assignment #1 Due	Lab 2: Data Exploration (pandas and SQL)
	11-Apr	Machine Learning Methods: Supervised Learning 1 Nearest Neighbors, Decision Trees	Assignment #2 out: Simple ML Pipeline	
3	16-Apr	Machine Learning Methods: Supervised Learning 2 Logistic Regression, Support Vector Machines		Lab 3: Supervised Learning (using sklearn for the methods covered in class)
	18-Apr	Evaluation Methodologies I – offline evaluation	Assignment #2 Due Assignment #3 Out	
4	23-Apr	Evaluation Methodologies I – offline evaluation		Lab 4: Supervised Learning and Evaluation (using sklearn for the methods covered in class)
	25-Apr	Machine Learning Methods: Supervised Learning 3 Ensemble Methods: Bagging, Boosting, Stacking		
5	30-Apr	Project Proposal Presentations	Project Proposal Due Assignment #3 Due	Lab 5: Supervised Learning (using sklearn for the methods covered in class)
	2-May	Machine Learning Methods: Supervised Learning 4 Random Forests and Bayes Learning		
6	7-May	Machine Learning Methods: Supervised Learning 5 Neural Networks and Comparing Classifiers	Proposal Reviews Due Mid-Term Exam Out	Lab 6: Classifier Comparison
	9-May	Feature Development/Engineering		
7	14-May	Feature Development/Engineering	Mid-Term Exam Due	Lab 6: Feature Generation
	16-May	Machine Learning Methods: Unsupervised Learning I Clustering: K-means, Mean Shift, Spectral, ...		
8	21-May	Machine Learning Methods: Unsupervised Learning 2 Association Rules, PCA, ...	Project Updates Due Assignment #4 Out	Lab 7: Unsupervised learning
	23-May	Interpretaibility of Models		
9	28-May	Bias and Fairness Analysis	Assignment #4 Due	Lab 8: Text analysis
	30-May	Text Analysis		
10	4-Jun	Ethics, Privacy, Transparency, Bias		No Lab