Week	Lec	Date	EECS 545 Machine Learning. Visit: https://umich.instructure.com/courses/315575	Notes
1	1	4-Sep	Intro and overview of course.	Hwk 1 assigned
2	2	9-Sep	Linear algebra, probability and optimization for ML	
	3	11-Sep	Linear algebra, probability and optimization for ML	
3	4	16-Sep	Supervised learning: Probabilistic classifiers - LDA, QDA, logistic regression	
	5	18-Sep	Supervised learning: Probabilistic classifiers - naïve Bayes, regularized logistic regression,	Hwk 2 assigned, Hwk 1 due
4	6	23-Sep	Supervised learning: Probabilistic classifies: iterative methods	
	7	25-Sep	Supervised learning: Probabilistic regression	
5	8	30-Sep	Supervised learning: iterative methods SD, SGD, etc	
	9	2-Oct	Supervised learning: Separating hyperplane classifiers	Hwk 3 assigned, Hwk 2 due
6	10	7-Oct	Supervised learning: Surrogate loss optimization	
	11	9-Oct	Supervised learning: Feature embeddings and kernelization	
7		14-Oct	No lecture - fall study day	
	12	16-Oct	Supervised learning: kernel methods	Hwk4 assigned, Hwk 3 due
8	13	21-Oct	Supervised learning: support vector machines for classification	
	14	23-Oct	Supervised learning: support vector machines for regression	
		25-Oct	Not a class day	Project reports due at 11:59pm on Hc
9	15	28-Oct	Supervised learning: model selection and cross-validation	
	16	30-Oct	Unsupervised learning: dimensionality reduction	Hwk 5 assigned, Hwk 4 due
		31-Oct	Not a class day	Reviews for project proposals on HotC
10	17	4-Nov	Unsupervised learning: clustering - K-means, MoG, EM	
	18	6-Nov	Unsupervised learning: clustering - Graph cuts, spectral clustering	
11	19	11-Nov	Unsupervised learning: Density estimation and anomaly detection	
	20	13-Nov	Neural networks: perceptron, multilayer perceptron (MLP), backpropagation algorithm	Hwk 6 due
12	21	18-Nov	Neural networks: CNN, LSTM	
	22	20-Nov	Neural networks: Infomax VAE, information bottleneck	
		21-Nov	Midterm exam - 6-8pm. Closed book. Students will be assigned to a room for exam.	
13	23	25-Nov	Decision trees, hierarchical clustering	
	24	27-Nov	Ensemble methods, boosting, random forests	
		1-Dec	Not a class day	Project reports due before 11:59pm c
14	25	2-Dec	Gaussian processes	
	26	4-Dec	Reinforcement learning and MDP	
		7-Dec	Not a class day	Project reviews due before 11:59pm c
15	27	9-Dec	Policy learning	
	28	11-Dec	Gradient-free learning	
		13-Dec	Project presentations	60-80 posters on display from 12 to 3