CSCE 633-600 Machine Learning: Fall 2017
Tentative Roadmap

Lecture	Week	Date	Topic	Reading	Assignments	Notices and Dues
1	1	8/31	Introduction	Alpaydin 1; Mitchell 1.1-1.2, 1.3-1.5; Murphy 1		
2	2	9/5	K-Nearest Neighbor			
3	2	9/7	Linear Regression (General & Ordinary Least Squares Solution)	Alpaydin 2; Mitchell 7.1-7.2, 7.4; Murphy 7		
4	3	9/12	Linear Regression (Gradient Descent) & Non-Linear Regression	Alpaydin 2; Mitchell 7.1-7.2, 7.4; Murphy 7		
5	3	9/14	Logistic Regression & Regularization (Part 1)	Mitchell supplementary material; Murphy 8	Hw 1 Announced	
6	4	9/19	Logistic Regression & Regularization (Part 2)			
7	4	9/21	Decision Trees and Random Forests	Alpaydin 9; Mitchell 3; Murphy 16.2		
8	5	9/26	Support Vector Machines	Alpaydin 13.1-13.5; Murphy 14		
9	5	9/28	"		Hw 2 Announced	Hw 1 Due
10	6	10/3	Neural Networks:	Alpaydin 11; Mitchell 4		

			Representation & Learning (Part 1)			
11	6	10/5	Exam #1			
12	7	10/10	Neural Networks: Representation & Learning (Part 2)			
13	7	10/12	Deep Learning Techniques	Murphy 28; Optional Reading: Jurgen Schmidhuber's Deep Learning; Hinton's Tutorial on Deep Belief Networks		
14	8	10/17	Unsupervised Learning (General & Clustering)	Alpaydin 7		Hw 2 Due
15	8	10/19	"			
16	9	10/24	Tutorial on Neural Network Toolbox			
17	9	10/26	Dimensionality Reduction & Matrix Completion	Alpaydin 6; Murphy 12		
18	10	10/31	Bayesian Learning	Mitchell 6; Murphy 11	Hw 3 Announced	
19	10	11/2	"			
20	11	11/7	Boosting & Ensemble Learning	Murphy 16.4, 16.6		Project Proposal Due
21	11	11/9				
22	12	11/14	Problem Solving			
23	12	11/16	Exam #2			

24	13	11/21	Markov & Hidden Markov Models	Murphy 17; Optional Reading: Rabiner 1989		Hw 3 Due
25	13	11/23	Thanksgiving Holiday	No class		
26	14	11/28	Large Scale Learning for Big Data & Applications	Optional Reading: Chu et al. 2009		
27	14	11/30	Project Presentations #1			
28	15	12/5	Project Presentations #2			Project Report Due