		Date	Lecture Topics	**Deliverables**	Notes
Week 1	Lecture 1	3/28/2022	Introduction		Slides
	Lecture 2	3/30/2022	Supervised learning setup. LMS.		Draft, Template, Notes; Section 1 of Main Notes
	TA Lecture 1	4/1/2022	Linear Algebra Review		Notes; Slides; Annotated Slides
Week 2	Lecture 3	4/4/2022	Weighted Least Squares. Logistic regression. Newton's Method		Draft, Template, Notes; Section 2 of Main Notes
	Lecture 4	4/6/2022	Exponential family. Generalized Linear Models.		Draft; Section 3 of Main Notes
		4/6/2022		**Problem Set 0 (Due at 11:59 pm PT - Ungraded)**	
	TA Lecture 2	4/8/2022	Probability Review		Notes; Slides
Week 3	Lecture 5	4/11/2022	Gaussian discriminant analysis. Naive Bayes.		Section 4.1 of Main Notes
	Lecture 6	4/13/2022	Naive Bayes, Laplace Smoothing.		Section 4.2 of Main Notes
		4/15/2022		**Final Project Proposal (Due at 11:59 pm PT)**	
	TA Lecture 3	4/15/2022	Python/Numpy		Slides; Materials
Week 4	Lecture 7	4/18/2022	Kernels		Section 5 of Main Notes
	Lecture 8	4/20/2022	Neural Networks 1		Draft, Template, Notes; Section 7.1 & 7.2 of Main Notes
		4/20/2022		**Problem Set 1 (Due at 11:59 pm PT)**	
	TA Lecture 4	4/22/2022	Evaluation Metrics		Slides
Week 5	Lecture 9	4/25/2022	Neural Networks 2 (backprop)		Section 7.3 of Main Notes
	Lecture 10	4/27/2022	Bias - Variance. Regularization.		Section 8 of Main Notes
	TA Lecture 5	4/29/2022	Deep Learning (Conv Nets)		Slides
Week 6	Lecture 11	5/2/2022	Feature / Model selection. ML Advice.		Section 9 of Main Notes, slides (only subset of first 40 pages are covered in the lecture)
	Lecture 12	5/4/2022	K-Means. GMM (non EM). Expectation Maximization.		Draft; Section 10, 11.1, 11.2 of Main Notes
		5/4/2022		**Problem Set 2 (Due at 11:59 pm PT)**	
		5/6/2022		**Final Project Milestone (Due at 11:59 pm PT)**	
	TA Lecture 6	5/6/2022	Midterm Review		Slides
Week 7	Lecture 13	5/9/2022	GMM (EM)		Draft; Section 11.2-11.4 of Main Notes
	Lecture 14	5/11/2022	Factor Analysis/PCA		Draft; Section 12&13 of Main Notes
		5/12/2022		**MIDTERM (CEMEX Auditorium, 6 pm - 9 pm PT)**	
			No TA Lecture (Midterm Week)		
Week 8	Lecture 15	5/16/2022	PCA/ICA		Draft; Draft; Section 13 of Main Notes
	Lecture 16	5/18/2022	Self-supervised learning		Draft; Section 14 of Main Notes
		5/18/2022		**Problem Set 3 (Due at 11:59 pm PT)**	
		5/20/2022	No TA Lecture		
Week 9	Lecture 17	5/23/2022	basic concepts in RL,value iteration, policy iteration		Draft; Section 15 of Main Notes
	Lecture 18	5/25/2022	Societal impact of ML(Guest lecture by Prof. James Zou)		
	TA Lecture 7	5/27/2022	Decision Trees + Boosting		Slides (Boosting), Slides (Decision Trees)
Week 10	Lecture 19	5/30/2022	MEMORIAL DAY. NO LECTURE.		
	Lecture 20	6/1/2022	Model-based RL, value function approximator		
	TA Lecture 8	6/3/2022	Learning Theory		Notes
		6/1/2022		**Problem Set 4 (Due at 11:59 pm PT)**	
		6/6/2022		**Final Project Report (Due at 11:59 pm PT)**	

		6/7/2022		**Final Project Poster Session (3:30 pm - 6:30 pm PT)**			

Other Resources
(Hover over each cell for hyperlinks)
All lecture videos can be accessed through Canvas.
Advice on applying machine learning: Slides from Andrew Ng's lecture on getting machine learning algorithms to work in practice can be found here.
Previous projects: Projects from previous years can be found in the "Final Projects" doc on the home page.
Data: Here is the UCI Machine learning repository, which contains a large collection of standard datasets for testing learning algorithms. If you want to see examples of recent work in machine learning, start by taking a look at the conferences NeurIPS (all old NeurIPS papers are online) and ICML. Some other related conferences include UAI, AAAI, IJCAI.
Viewing PostScript and PDF files: Depending on the computer you are using, you may be able to download a PostScript viewer or PDF viewer for it if you don't already have one.
Machine learning study guides tailored to CS 229 by Afshine Amidi and Shervine Amidi.
The Matrix Cookbook: Quick reference for matrix identities, approximations, relations, etc.