

Date	Week #	Topic	Homeworks
Jan. 6	1	Course overview; intro to linear algebra	
Jan. 9		Intro to probability, fully connected neural networks	
Jan. 13	2	Optimization	
Jan. 16		Convolutional neural networks, Image Classification	
Jan. 20	3	no class (MLK day)	
Jan. 23		Regularization	
Jan. 27	4	NN Robustness issues, Adversarial training	
Jan. 30		Robustness vs distribution shift	HW1
Feb. 3	5	NN verification overview, interval analysis	
Feb. 6		Reluplex	
Feb. 10	6	Student presentations 1	
Feb. 13		Student presentations 2	
Feb. 18*	7	OOD Detection, NN Calibration	
Feb. 20		Conformal Prediction	HW2
Feb. 24	8	Dynamical systems introduction and modeling	
Feb. 27		PID/State feedback Control	
Mar. 3	9	no class (spring break)	
Mar. 6		no class (spring break)	
Mar. 10	10	LQR	
Mar. 13		no class (conference travel)	
Mar. 17	11	Search-based Planning	
Mar. 20		Sampling-based Planning	HW3
Mar. 24	12	State Estimation	
Mar. 27		Model-based Detection	
Mar. 31	13	Dynamical System Verification	
Apr. 3		Neural Network Controller Verification	HW4
Apr. 7	14	Specifications, LTL, CTL	
Apr. 10		Student presentations 1	
Apr. 14	15	Student presentations 2	
Apr. 17		Probabilistic Verification	
Apr. 21	16	Special Topics	HW5
Apr. 24		no class (end of semester)	