

CS 4320: Machine Learning

Spring 2024 Schedule

Day	Topic	Reading	Work Due
Jan 9			
Jan 11			
W01	Introduction to Machine Learning		
W01	Working with data collections		
W01	Visualizing data		
H Jan. 15	<i>Martin Luther King Jr. Day</i> (no classes)		
Jan 16			<u>Assignment 1</u>
Jan 18			
W02	Regression Models		
W02	Gradient Descent		
Jan 23			<u>Assignment 2</u>
Jan 25			
W03	Data Processing Pipelines		
W03	Intro to Neural Networks		
W03	Perceptrons		
W03	Multilayer Perceptrons		
W03	Back-propagation		
Jan 30			<u>Assignment 3</u>
Feb 1			
W04	Neural Networks with Tensorflow and Keras		
W04	Classification		
W04	Performance Measures/Confusion Matrix		
W04	Decision Trees		
Feb 6			<u>Assignment 4</u>
Feb 8			
W05	Cross-Validation		
W05	Bias vs Variance		
W05	Error Analysis		
W05	Loss Functions		
W05	Regularization		
W05	Learning Curves		
Feb 13			<u>Assignment 5</u>
Feb 15			
W06	Hyper-parameter searches		
W06	Support Vector Machines		
H Feb. 19	<i>President's Day</i> (no classes)		
Feb 20			<u>Assignment 6</u>
Feb 22			
W07	Ensembles		
W07	Forests		
W07	Boosting		
W07	Neural Networks for Classification		
Feb 27			<u>Assignment 7</u>
Feb 29			
W08	Action Policies		
W08	Value Iteration		
W08	Markov Chains		

W08	Markov Decision Process		
W08	Q-Values		
W08	Temporal Difference Learning		
Mar 5			<u>Assignment 8</u>
Mar 7			
W09	Temporal Difference Q-Learning		
H Mar 11-15	<i>Spring Break</i> (no classes)		
Mar 19			<u>Assignment 9</u>
Mar 21			
W10	Neural Networks		
W10			
Mar 26			<u>Assignment 10</u>
Mar 28			
W11	Neural Networks		
W11			
Apr 2			<u>Assignment 11</u>
Apr 4			
W12	Neural Networks		
W12			
Apr 9			<u>Assignment 12</u>
Apr 11			
W13	Neural Networks		
W13			
Apr 16			<u>Assignment 13</u>
Apr 18			
W14	Neural Networks		
W14			
Apr 23			<u>Assignment 14</u>
W15	Neural Networks		
W15			
Apr 25	<i>Last Day of Classes</i>		
Apr 26	<i>Reading Day</i> (no classes)		
			<u>Assignment 15</u>
Apr 30	Final Exam 9:00 am - 10:50 am		Final Exam

Class announcements may modify schedule from that listed above.