MA477: Theory and Applications of Data Science - AY20-2 (Spring 2020)

AY19-2		MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY	
Block 1 - Python for Data Analysis and Visualization	**1**	6-Jan-20	N/A	7-Jan-20	N/A	8-Jan-20	1-1	9-Jan-20	2-1	10-Jan-20	1-2
		No Class / Reorgy Week		No Class / Reorgy Week		No Class		Course Introduction and Intro to Machine Learning §2.1 of ISLR and §2.1-2.4 of Wilmott			
	2	13-Jan-20	2-2	14-Jan-20	N/A	15-Jan-20	1-3	16-Jan-20	2-3	17-Jan-20	1-4
		Intro to ML Continued &Python for Data Analysis -- Numpy		No Class / Honorable Living Stand Down Day				Python for Data Analysis Pandas			
	3	20-Jan-20	N/A	21-Jan-20	2-4	22-Jan-20	N/A	23-Jan-20	1-5	24-Jan-20	2-5
		No Class / MLK Day		Python for Data Analysis Pandas Continued Exercise 1		No Class / Study Day		No Class		Python for Data Visualization Matplotlib & Seaborn Exercise 2	
Block 2 - Regression Models	**4**	27-Jan-20	1-6	28-Jan-20	2-6	29-Jan-20	1-7	30-Jan-20	2-7	31-Jan-20	1-8
		No Class		RegModels - K-NN Regressor §3.1 -- §3.7 of Wilmott Exercise 3		No Class		RegModels K-NN Regressor Lab		No Class	
	5	3-Feb-20	1-9	4-Feb-20	2-8	5-Feb-20	1-10	6-Feb-20	2-9	7-Feb-20	1-11
		No Class		RegModels Linear Regression Ch. 3 of ISLR & Ch. 6 of Wilmott		No Class		RegModels Linear Regression Lab		No Class	
	6	10-Feb-20	2-10	11-Feb-20	1-12	12-Feb-20	N/A	13-Feb-20	1-13	14-Feb-20	2-11
		RegModels - Ridge & Lasso Regression §3.1 of ISLR		No Class		No Class / Study Day		No Class		ClassModels - KNN Classifier Ch. 3 of Wilmott and §2.2.3 of ISLR Lab	
Block 3 - Classification Models	**7**	17-Feb-20	N/A	18-Feb-20	1-14	19-Feb-20	2-12	20-Feb-20	1-15	21-Feb-20	2-13
		No Class / President's Day		No Class		ClassModels - Logistic Regression §4.3 of ISLR and §6.4 of Wilmott Mini-Project 1		No Class		Logistic Regression §4.3 of ISLR and §6.4 of Wilmott Lab	
	8	24-Feb-20	1-16	25-Feb-20	2-14	26-Feb-20	N/A	27-Feb-20	2-15	28-Feb-20	1-17
		No Class		ClassModels - Naïve Bayes Classifier Ch. 5 of Wilmott		No Class / Study Day		Application of Naïve Bayes Method Intro to Natural Language Processing (NLP) Quiz 1		No Class	
	9	2-Mar-20	1-18	3-Mar-20	2-16	4-Mar-20	1-19	5-Mar-20	2-17	6-Mar-20	1-20
		No Class		NLP Tokenization, Tagging, Chunking Mini-Project 2		No Class		Sentiment Analysis Text Analysis and Prediction Lab		No Class	
Spring Break		9-Mar-20	N/A	10-Mar-20	N/A	11-Mar-20	N/A	12-Mar-20	N/A	13-Mar-20	N/A
		No Class / Spring Break		No Class / Spring Break		No Class / Spring Break		No Class / Spring Break		No Class / Spring Break	
Block 4 - Unsupervised Learning	**10**	16-Mar-20	1-21	17-Mar-20	2-18	18-Mar-20	N/A	19-Mar-20	2-19	20-Mar-20	1-22
		No Class				No Class / Study Day		Decision Trees §8.1 ISLR and Ch. 9 of Wilmott		No Class	
	11	23-Mar-20	1-23	24-Mar-20	2-20	25-Mar-20	1-24	26-Mar-20	2-21	27-Mar-20	1-25
		No Class		Ensamble Models & Random Forests §8.2 of ISLR		No Class		Ensemble Models Voting Classifiers		No Class	
	12	30-Mar-20	2-22	31-Mar-20	1-26	1-Apr-20	N/A	2-Apr-20	1-27	3-Apr-20	2-23
		Boosting Models Adaptive Boosting		No Class		No Class / Study Day		No Class		K-Means Clustering § 10.3.1 of ISLR and Ch. 4 of Wilmott Quiz 2	
	13	6-Apr-20	1-28	7-Apr-20	2-24	8-Apr-20	N/A	9-Apr-20	1-29	10-Apr-20	2-25
		No Class		Applications of K Means Clustering Data Pre-processing & Image Segmentation		No Class / Study Day		No Class		Principal Component Analysis § 10.2 of ISLR and § 2.5 of Wilmott	
Block 5 - ANNs and Reinforcment Learning	**14**	13-Apr-20	1-30	14-Apr-20	2-26	15-Apr-20	1-31	16-Apr-20	2-27	17-Apr-20 Modified	1-32
		No Class		Neural Networks Ch. 10 of Wilmott		No Class		Neural Networks		No Class	
	15	20-Apr-20	1-33	21-Apr-20	2-28	22-Apr-20	N/A	23-Apr-20	1-34	24-Apr-20	2-29
		No Class		Neural Networks Mini-Project 3		No Class / Study Day		No Class		Neural Networks Exercise 4	
	16	27-Apr-20	1-35	28-Apr-20	N/A	29-Apr-20	1-36	30-Apr-20	N/A	1-May-20	1-37
		No Class		No Class / Study Day		No Class		No Class / Projects Day		No Class	
	17	4-May-20	1-38	5-May-20	2-30	6-May-20	1-39	7-May-20	N/A	8-May-20	1-40
		No Class		Review		No Class		No Class / Study Day		No Class	
TEE	**18**	11-May-20	N/A	12-May-20	N/A	13-May-20	N/A	14-May-20	N/A	15-May-20	N/A
		No Class / TEE Week		No Class / TEE Week		No Class / TEE Week		No Class / TEE Week		No Class / TEE Week	

KEY

No Class	Lab	Course-wide Graded Event	Quiz	Assignment or Modified Sched.