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 / No Class / Reorgy Week		7-Jan-20 / N/A / No Class / Reorgy Week		8-Jan-20 / No Class	1-1	9-Jan-20 / Course Introduction and Intro to Machine Learning / §2.1 of ISLR and §2.1-2.4 of Wilmott	2-1	10-Jan-20	1-2
	2	13-Jan-20 / Intro to ML Continued &Python for Data Analysis -- Numpy	2-2	14-Jan-20 / No Class / Honorable Living Stand Down Day	N/A	15-Jan-20	1-3	16-Jan-20 / Python for Data Analysis / Pandas	2-3	17-Jan-20	1-4
	3	20-Jan-20 / No Class / MLK Day	N/A	21-Jan-20 / Python for Data Analysis / Pandas Continued / Exercise 1	2-4	22-Jan-20 / No Class / Study Day	N/A	23-Jan-20 / No Class	1-5	24-Jan-20 / Python for Data Visualization / Matplotlib & Seaborn / Exercise 2	2-5
Block 2 – Regression Models	**4**	27-Jan-20 / No Class	1-6	28-Jan-20 / RegModels - K-NN Regressor / §3.1 -- §3.7 of Wilmott / Exercise 3	2-6	29-Jan-20 / No Class	1-7	30-Jan-20 / RegModels / K-NN Regressor / Lab	2-7	31-Jan-20 / No Class	1-8
	5	3-Feb-20 / No Class	1-9	4-Feb-20 / RegModels / Linear Regression / Ch. 3 of ISLR & Ch. 6 of Wilmott	2-8	5-Feb-20 / No Class	1-10	6-Feb-20 / RegModels / Linear Regression / Lab	2-9	7-Feb-20 / No Class	1-11
	6	10-Feb-20 / RegModels - Ridge & Lasso Regression / §3.1 of ISLR	2-10	11-Feb-20 / No Class	1-12	12-Feb-20 / No Class / Study Day	N/A	13-Feb-20 / No Class	1-13	14-Feb-20 / ClassModels - KNN Classifier / Ch. 3 of Wilmott and §2.2.3 of ISLR / Lab	2-11
Block 3 – Classification Models	**7**	17-Feb-20 / No Class / President's Day	N/A	18-Feb-20 / No Class	1-14	19-Feb-20 / ClassModels - Logistic Regression / §4.3 of ISLR and §6.4 of Wilmott / Mini-Project 1	2-12	20-Feb-20 / No Class	1-15	21-Feb-20 / Logistic Regression / §4.3 of ISLR and §6.4 of Wilmott / Lab	2-13
	8	24-Feb-20 / No Class	1-16	25-Feb-20 / ClassModels - Naïve Bayes Classifier / Ch. 5 of Wilmott	2-14	26-Feb-20 / No Class / Study Day	N/A	27-Feb-20 / Application of Naïve Bayes Method / Intro to Natural Language Processing (NLP) / Quiz 1	2-15	28-Feb-20 / No Class	1-17
	9	2-Mar-20 / No Class	1-18	3-Mar-20 / NLP / Tokenization, Tagging, Chunking / Mini-Project 2	2-16	4-Mar-20 / No Class	1-19	5-Mar-20 / Sentiment Analysis / Text Analysis and Prediction / Lab	2-17	6-Mar-20 / No Class	1-20
Spring Break		9-Mar-20 / No Class / Spring Break	N/A	10-Mar-20 / No Class / Spring Break	N/A	11-Mar-20 / No Class / Spring Break	N/A	12-Mar-20 / No Class / Spring Break	N/A	13-Mar-20 / No Class / Spring Break	N/A
	10	16-Mar-20 / No Class	1-21	17-Mar-20 / Decision Trees & Random Forests / §8.1&8.2.2 of ISLR and Ch. 9 of Wilmott	2-18	18-Mar-20 / No Class / Study Day	N/A	19-Mar-20 / ClassModels / Decision Trees & Random Forests / Quiz 2	2-19	20-Mar-20 / No Class	1-22
Block 4 – Unsupervised Learning	**11**	23-Mar-20 / No Class	1-23	24-Mar-20 / Principal Component Analysis / § 10.2 of ISLR and § 2.5 of Wilmott / Mini-Project 3	2-20	25-Mar-20 / No Class	1-24	26-Mar-20 / Principal Component Analysis / Lab	2-21	27-Mar-20 / No Class	1-25
	12	30-Mar-20 / K-Means Clustering / § 10.3.1 of ISLR and Ch. 4 of Wilmott	2-22	31-Mar-20 / No Class	1-26	1-Apr-20 / No Class / Study Day	N/A	2-Apr-20 / No Class	1-27	3-Apr-20 / K-Means Clustering / Lab	2-23
	13	6-Apr-20 / No Class	1-28	7-Apr-20 / H-Means Clustering / § 10.3.1 of ISLR	2-24	8-Apr-20 / No Class / Study Day	N/A	9-Apr-20 / No Class	1-29	10-Apr-20 / H-Means Clustering / Lab	2-25
Block 5 – ANNs and Reinforcement Learning	**14**	13-Apr-20 / No Class	1-30	14-Apr-20 / Neural Networks / Ch. 10 of Wilmott / Mini-Project 4	2-26	15-Apr-20 / No Class	1-31	16-Apr-20 / Neural Networks / Quiz 3	2-27	**17-Apr-20 Modified** / No Class	1-32
	15	20-Apr-20 / No Class	1-33	21-Apr-20 / Neural Networks / Lab	2-28	22-Apr-20 / No Class / Study Day	N/A	23-Apr-20 / No Class	1-34	24-Apr-20 / TBD / Mini-Project 5	2-29
	16	27-Apr-20 / No Class	1-35	28-Apr-20 / No Class / Study Day	N/A	29-Apr-20 / No Class	1-36	30-Apr-20 / No Class / Projects Day	N/A	1-May-20 / No Class	1-37
	17	4-May-20 / No Class	1-38	5-May-20 / TBD / Quiz 4	2-30	6-May-20 / No Class	1-39	7-May-20 / No Class / Study Day	N/A	8-May-20 / No Class	1-40
		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

TEE 18	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.