	BMI 214 Schedule Fall 2019	
Class#	**DATE**	**LECTURE TOPIC**
1	9/24/2019	Intro bioinformatics, comp bio, data for biology
2	9/26/2019	Dynamic Programming for sequence alignment
	FRIDAY	Python Introduction
3	10/1/2019	Finish DP, Start BLAST
4	10/3/2019	BLAST Algorithm
	FRIDAY	Clustering & Classification Evaluation (GO enrich, bonf sens, spec,)
5	10/8/2019	CMAP/LINCS/GSEA Expression Analysis -
6	10/10/2019	NGS Sequencing & Assembly algorithms
	FRIDAY	More on Clustering/Classification (if needed)
7	10/15/2019	Basic 3D computation & structure alignment
8	10/17/2019	Structure alignment & energetics
	FRIDAY	Energy sampling (Gibbs and MCMC sampling)
9	10/22/2019	Multiple sequence alignment (exact, approx)
10	10/24/2019	HMMs I: Markov Chains, HMMs, HMMs with MSA
	FRIDAY	HMM II: EM, viterbi, Baum/welch
11	10/29/2019	1D and 3D motifs
12	10/31/2019	Protein Structure Prediction/CASP
	FRIDAY	Midterm Review Session
13	**11/5/2019**	**MIDTERM (in class)**
14	11/7/2019	Human Genome, SNPs, GWAS
	FRIDAY	AlphaFold + 3D CNNs
15	11/12/2019	Pathogenicity Prediction Algorithms (NEW)
16	11/14/2019	Chemoinformatics
	FRIDAY	TAPE: RNA informatics
17	11/19/2019	Networks
18	11/21/2019	Phylogenetics
	FRIDAY	NO MEETING - TG break
	11/26/2019	NO MEETING - TG break
	11/28/2019	NO MEETING - TG break
	FRIDAY	NO MEETING - TG break
19	12/3/2019	Pharmacogenomics & Final Thoughts from RBA
20	12/5/2019	Deep Learning in Bioinformatics + TBD topics Cancer
	FRIDAY	Final Exam Review session
	12/9/2019	**FINAL EXAM 7PM- 10 PM**