
ISyE 6740 - Spring 2019

Tentative Teaching Schedule

Lecture #	Date	Topic
1	Jan 7	Introduction
2	Jan 9, 11, 14	Aspects of algorithms
3	Jan 16, 18	Basics of statistical inference
4	Jan 23, 25, 28	Optimization algorithms for statistics
5	Jan 30, Feb 1, 4	EM algorithm, Gaussian mixture and missing data
	Feb 6	Midterm 1 review
	Feb 8	Midterm 1
6	Feb 11, 13, 15	Classification, LDA, QDA
7	Feb 18, 20, 22	Principal Component Analysis (PCA) and low-rank models
8	Feb 25, 27	Model selection and cross validation
9	March 1, 4	Spline methods
	March 6	Midterm 2 review
	March 8	Midterm 2
10	March 11, 13, 15	Hidden Markov Models (HMM)
Spring Break	March 18-22	
11	March 25, 27, 29	Monte Carlo methods
12	April 1, 3	Boostrap
13	April 5, 8, 10	MCMC
14	April 12	Selected topics (e.g., change-point detection and/or reinforcement leaning)
	April 15, 17, 19	Project presentation
	April 22	Final review
Final	May 1	Final Exam

Tentative homework schedule:

- Homework 1 due Jan 23
- Homework 2 due Feb 6
- Homework 3 due Feb 20
- Homework 4 due March 6
- Homework 5 due March 25
- Homework 6 due April 8