**Math 151. Probability Spring 2020**

**Tentative Schedule of Lectures and Examinations**

**Date Topic**

W Jan. 22 Introduction: A problem from statistical inference

F Jan. 24 Sample Spaces

M Jan. 27 σ-fields

W Jan. 29 σ-fields (continued)

F Jan. 31 Probability spaces

M Feb. 3 Probability spaces (continued)

W Feb. 5 Independent events and conditional probability

F Feb. 7 Continuous and discrete random variables

M Feb. 10 Cumulative distribution function (cdf)

W Feb. 12 Probability density function (pdf)

F Feb. 14 Probability mass function (pmf)

M Feb. 17 Continuous random variable and probability density function (pdf)

W Feb. 19 Review

F Feb. 21 **Exam 1**

M Feb. 24 Expectation of a random variable

W Feb. 26 Expectation of a function of a random variable

F Feb. 28 Expectation of a function of a random variable (continued)

M Mar. 2 Moments, variance and moment generation function

W Mar 4 Joint distribution functions

F Mar. 6 Joint distribution functions (continued)

M Mar. 9 Marginal distributions

W Mar. 11 Independent random variables

F Mar. 13 Independent random variables (continued)

M Mar. 16 *Spring Recess*

W Mar. 18 *Spring Recess*

F Mar. 20 *Spring Recess*

M Mar. 23 Review

W Mar. 25 **Exam 2**

F Mar. 27 *Cesar Chavez Recess*

**Date Topic**

M Mar. 30 The Poisson distribution

W Apr. 1 The Poisson distribution (continued)

F Apr. 3 Limiting distributions

M Apr. 6 Limiting distributions (continued)

W Apr. 8 mgf convergence theorem

F Apr. 10 Convergence in distribution

M Apr. 13 Convergence in Probability

W Apr. 15 The Central Limit Theorem

F Apr. 17 Applications of the Central Limit Theorem

M Apr. 20 Applications of the Central Limit Theorem (continued)

W Apr. 22 Random samples

F Apr. 24 Sampling distributions

M Apr. 27 Estimation

W Apr. 29 Review

F May 1 **Exam 3**

M May 4 Review

W May 6 Review

F May 15 **Final Examination**