

STAT7345 - Advanced Probability and Stochastic Processes

[STAT 7345](#) Advanced Probability and Stochastic Processes (3 semester credit hours) Taught as a continuation of [STAT 6344](#). Exponential probability inequalities. Large deviation theory. Martingales, sub- and supermartingales, random walk, Markov chains, Yule and Poisson processes, the general birth and death process, shot noise, branching processes, renewal processes, Brownian motion and diffusion, stationary processes, and the empirical process. Selected other topics. Prerequisite: [STAT 6344](#). (3-0) T