

Course Syllabus – MATH 468/568
Applied Stochastic Processes

Room: 308 Chavez

Time: 2:00 – 3:15pm

Instructor: Sunder Sethuraman

Office: Math ENR2 South 413 (621-1774); Office Hour—Thursdays 10am, or by appt.

Webpage: <http://www.math.arizona.edu/~sethuram/math468.html>

TA: Jerry Luo: Office Hour—Wed's 11-11:50, Math 607

Textbook: *Essentials of Stochastic Processes 2nd Ed.* (2012), R. Durrett, Springer.

Other books of interest: Hoel, Port and Stone *Stochastic Processes*, Lawler, *Introduction to Stochastic Processes*, and others at this level.

Topics/Rough Schedule

Ch. 1 Discrete Time Markov Chains

Ch. 2 Poisson Processes

Ch. 4 Continuous Time Markov Chains

Ch. 5 Martingales

We will also cover parts of Ch. 3 (Renewal Processes) and possibly Ch. 6 (Finance)

Midterm (Mar. 3)

Final Exam (TBA in week of May 6-12, 2016)

Homework: Roughly every week. Graduate students may be asked to solve a couple of extra problems on the HW. Undergraduates also can solve these 'extra' problems for credit to improve the midterm score.

Grades: HW (30%); Midterm (35% each); Final (35%).

Grade A is 90%-100%, B is 80% - 89%, etc.