

Math 565A
Stochastic Processes
Spring 2009
TuTh 9:30–10:45
in Math 501

Instructor: W. Faris

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Office Hours: Tues 11:00 in Math 220, Wed 2:00 and Thus 11:00 in Math 620, or appointment

Text: Bhattacharya and Waymire, *Discrete-Parameter Markov Processes* (lecture notes);

Course Content: Universal examples: Bernoulli trials, the Poisson process, random walk, Brownian motion. Markov process topics: stopping times and the strong Markov property, transience and recurrence, invariant probability distributions, coupling. Martingales.

Applications including Markov Chain Monte Carlo simulation.

Prerequisite: strong probability background

Hour exam: Thursday, March 5

Final Exam: Thursday, May 14, 8:00AM–10:00AM

Missed Exams: Missed exams must be justified in writing before the exam and must be approved by the instructor. (In extreme emergency the mathematics office may be telephoned before the exam, with the message that a letter is on the way.) Justification for missing an exam due to a conflict with another scheduled activity must be submitted the first week of classes.

Scores for Missed Exams: A score for a justified missed exam will be assigned based on the average of the other exams. A missed final exam will result in a grade of I or E.

Homework: There will be regular homework assignments. No credit will be given for late work, unless it is justified in advance, in writing.

Grading: Hour Exam 100 points

Home work: 200 points

Final Exam: 200 points

The numerical scores will be converted to letter grades at the end of the semester. The grading system is that given in the General Catalog (A – Excellent, B – Good, C – Fair, D – Poor, E – Failure). Higher numerical scores will give the same or higher letter grades. The actual cutoff points will depend on the general performance of the class and on the difficulty of the exams. Other possible grades are W (withdrawal passing weeks 5 through 8), WP (complete withdrawal passing), WF (complete withdrawal failing). The last two are appropriate for complete withdrawal from the University by the last class day.

Withdrawal: February 10 last drop with deletion

March 10 last drop with W or E

After March 10 drop with E (or WP or WF if withdrawing from University)