

Summer 2016 - 8W1 (June 13 - Aug 07)

University of Akron
**3470: 650 Advanced Probability
and
Stochastic Processes**

Time and Place: MTTh 4:30 - 6:05pm CAS 109
Instructor: Nao Mimoto
Office: CAS 413
Phone: (330) 972 8011
Email: nmimoto@uakron.edu
Office Hours: By appointment
Course Web Page: gozips.uakron.edu/~nmimoto/650
Prerequisite: 3470:651 Applied Statistics or equivalent (contact instructor for more info)

Course Description: Any realistic model of a real-world phenomenon must take into account the possibility of randomness. The quantities we are interested in will not be predictable in advance, and our model must taken into account an inherent variation of the phenomenon. In this course, we will visit various probability models that has application in wide range of field, such as Engineering, Fiance/Economics, Life sciences and Phisical sciences.

Topics covered include: Conditional Probability, Markov chains, Poisson process, renewal theory, queueing theory, reliability theory, random walk and Brownian motion, methods of simulation.

Textbook: Sheldon M. Ross, Introduction to Probability Models 11th Ed., Elsevier

Lecture Notes: Some Lecture notes for the course will be available at the course web page listed above.

Attendance: You are expected to attend all meetings of the class. If you miss a class for whatever reason, you are responsible for all covering materials, assignments and deadlines.

Homework Assignments: There are daily assignments and weekly take-home assignments. The lowest take-home scores will be dropped when calculating total points.

Exams: There will be a midterm exam and a final exam. Make-up tests will be given only when you have a verifiable medical excuse.

Grading Scale: Grading is based on homework and exam scores according to the following schemes, and a course grade will be given according to the following scale:

Assignments	50%
Midterm	25%
Final	25%

A		B		C		D	
90%		80%		70%		60%	

A plus/minus grade may be assigned if a student's total fall just below one of the cut-offs.

ADA: Any student who feels he/she may need an accommodation based on the impact of a disability should contact the Office of Accessibility at (330) 972-7928. The office is located in Simmons Hall room 105. Their web page can be viewed at <http://www.uakron.edu/access/>.

Disclaimer: The instructor reserves the right to make any changes he considers academically advisable. Changes will be announced in class and on the course web site. It is your responsibility to keep up with any changed policies and assignments.

Academic Honesty: The use of a crib sheet as well as copying homework, quizzes, or examinations constitutes academic dishonesty and will be referred to the Student Discipline Office. Please refer to the University of Akron's Academic Dishonesty Policies Publication for a more detailed discussion about Academic Dishonesty.

Table 1: **Important Dates**

June 13	Last day to add (no signatures required)
June 17	Last day to add (with Instructor, Advisor, and Dean signatures)
June 17	Last day to drop without "WD" appearing on academic record (no signatures required)
July 5	Last day to drop (no signatures required)
