

**Syllabus: IEMS 460-2
Stochastic Models II
Spring 2011**

Time: Mondays, Wednesdays, and Fridays, 11:00-11:50.

Final Exam: Thursday, June 9, 9-11am.

Place: Tech MG28 (for class meetings and exams)

Professor: Benjamin Armbruster (armbruster@northwestern.edu)

Office: Tech M237

Office Hours: Wednesdays, 4:00-5:00

Objective: learn tools for modeling and analyzing stochastic systems in applications, as required for research in IEMS.

Main textbook:

Modeling and Analysis of Stochastic Systems, 2nd ed., by Vidyadhar G. Kulkarni.

On reserve at the science and engineering library:

Stochastic Processes by Sheldon Ross.

Adventures in Stochastic Processes by Sid Resnick.

Applied Probability and Queues (2nd ed.) by Søren Asmussen.

Available online:

Basics of Applied Stochastic Processes by Richard Serfozo

<http://springerlink.com/content/978-3-540-89331-8>

The final grade will be computed on the basis of:

Final Exam	30%
1 Midterm Exam	15%
Quizzes	5%
Homework	35%
Project	15%

The final and midterm will be *open-book, open-notes*. You can bring whatever materials you want. Exams are cumulative.

Quizzes will be brief and announced ahead of time. Their purpose is to give quick checks of basic understanding of the material.

Homeworks will generally be due Fridays. Students are permitted to discuss the

homeworks with each other and are encouraged to discuss them with the instructor during office hours. However, the final submission must be a student's own work: it is not permissible to look at another student's written solutions, nor is it permitted to allow other students to use one's written solutions. Students may refer to any published sources. *Students may not make use of any materials from this course in prior years, such as class notes, assignments, exams, or their solutions.*