

Statistics 416 Stochastic Modeling

MWF 1:25 - 2:15 PM

107 Agricultural Sciences and Industries Building

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Textbook: *Introduction to Stochastic Models*, by Mark Pinsky and Samuel Karlin

Web: www.stat.psu.edu/~fricks/spring2012/stat416/

Prerequisite: Stat 318 or Math/Stat 414 and Math 230

Course Outline:

Markov chains	3 weeks
Asymptotics of Markov chains	2 weeks
First Exam	February 17
Poisson process	3 weeks
Continuous-time Markov chains	3 weeks
Second Exam	April 6
Brownian Motion and misc examples	3 weeks

Grade Policy: Grades will be determined by the following components:

Homework	20
Midterm 1	25
Midterm 2	25
Comprehensive Final	30

The final grades will be determined using the following intervals. If the grades are curved, a higher grade may be received, but you will not receive a lower grade than what is found below.

[93, 100]	A
[90, 93)	A-
[87, 90)	B+
[83, 87)	B
[80, 83)	B-
[77, 80)	C+
[70, 77)	C
[60, 70)	D
[0, 60)	F

Homework:

Homework will be given weekly. No late homework will be accepted under any conditions. One homework grade will be dropped. Homework is due at the beginning of the class period. The beginning of class is the beginning of class. If you need to enter the class a few minutes late, please come up to the front of the class to turn in your assignment. You are welcome to turn in your homework any time before the due date; you can either give it to me personally or put it in my mailbox. (Note that if you put it in my mailbox DURING the class that it is due, then I will receive it after class and will thus be late.) In order to receive credit for homework, all assignments must include HOW an answer is obtained, not just the numerical solution.

Exam Policies:

1. No make-up exams are given.
2. In the case of a University approved conflict, an arrangement will be made with the instructor. You must inform the instructor one week before the exam date.

Integrity:

All Penn State University and Eberly College of Science policies regarding academic integrity apply to this course. Those policies are available at: www.science.psu.edu/academic/Integrity/index.html

Please pay particular attention to the student conduct section from those policies:

All course work by students will be done on an individual basis unless an instructor clearly states that an alternative is acceptable. Any reference materials used in the preparation of an assignment, whether quoted or paraphrased, must be explicitly cited. In an examination setting, unless the instructor gives explicit prior instructions to the contrary, regardless of whether the examination is in-class or take-home, violations of academic integrity shall consist of any attempt to receive assistance from any person or papers or electronic devices, or of any attempt to give assistance, whether the student doing so has completed his or her own work or not. Other violations include, but are not limited to, any attempt to gain an unfair advantage in regard to an examination, such as tampering with a graded exam or claiming another's work to be one's own.