STAT 583 Stochastic Processes and Financial Models  
Course Syllabus for Fall 2016

Instructor: Dr. Alan M. Polansky, Du Sable 361D, polansky@niu.edu

Office Hours: 10:00am – 11:00am on Monday and Wednesday, or by appointment.

Credit Hours: 3 (Graduate)

Meeting Times: Monday and Wednesday from 3:30PM to 4:45PM, and Tuesday 5:00 – 5:50PM in Du Sable 322


Learning Outcomes
1. Capacity to formulate problems within the applied probability framework.
2. Essential skills for the analysis of applied problems applied probability
3. Knowledge of fundamental theoretical results in stochastic processes
4. Knowledge of the supporting theory for fundamental theoretical results in stochastic processes

Grade Calculation: Your grade in this course will be based on your performance on two examinations during the semester (30% each), one comprehensive final examination (30%), and homework (10%).

Homework
- Homework will be assigned daily, with due dates being given in class. It is the responsibility of the student to keep track of which assignments are due each day. No late assignments will be accepted for any reason.
- Assignments are to be neat and presented logically on loose leaf paper. If more than one sheet of paper is used, the assignment must be stapled together. Spiral paper is unacceptable. You are to show all your work. If your assignments are messy or disorganized you will not receive credit for that assignment.
- Please note that mistakes in your grades on homework, and/or exams may occur. You have one week from the time the paper was handed back to notify me of the mistake. If you wait longer than the one week, no change will be made to the grade.

Exams
- The dates of the exams will be given during lecture. All exams are given in the usual classroom.
- All exams are closed book and note.
- Make-up exams will not be given. If there is a serious situation which prevents you from taking an exam, contact me as soon as possible via email. In such a case where missing an exam is warranted, your final exam will be worth 55% instead of the usual 30%. The remaining aspects of your grade will be computed as outlined above.
Grade Scale: A scale of 90%, 87%, 83%, 80%, 77%, 73%, 70%, 65%, 60%, will be used as the cut-points for the grades A, A-, B+, B, B-, C+, C, C-, D, respectively; an F will result for scores less than 60%.

Incomplete Grades: Please note that a grade of incomplete (I) will only be considered for students who are passing, but cannot complete the course due to health or family reasons. A grade of incomplete will not be assigned to anyone who is not passing the course at the time of the request.

Extra Credit: There is no extra credit given in this course.

Accessibility: Northern Illinois University is committed to providing an accessible educational environment in collaboration with the Disability Resource Center (DRC). Any student requiring an academic accommodation due to a disability should let his or her faculty member know as soon as possible. Students who need academic accommodations based on the impact of a disability will be encouraged to contact the DRC if they have not done so already. The DRC is located on the 4th floor of the Health Services Building, and can be reached at 815-753-1301 (V) or drc@niu.edu.

Academic Integrity Statement: The Statement of Academic Integrity in the Undergraduate catalog will be strictly enforced with regard to homework assignments, quizzes, and exams. NIU’s updated policies on academic integrity, attendance and accommodations for students with disabilities can be found at: http://www.niu.edu/stat/courses/pdfs/Accessibility_statement.pdf

The instructor reserves the right to amend this syllabus at any time. Changes will be announced in lecture.

Topical Syllabus

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<td>4</td>
<td>4.1 – 4.6</td>
<td>Markov Chains, Chapman-Kolmogorov Equations, Classification of States, Limiting Probabilities, The Gambler's Ruin Problem, Mean Time in Transient States</td>
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