

Hand out 1/22/2008.

Math 504: Simulation Modelling and Analysis

Text The course is based on notes written by the instructor. However, many of the course topics are covered in the text entitled Introduction to Probability Models, by S. Ross and published by Academic Press. This text is an excellent reference in applied probability.

Math.
438
8th edition.

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Office Hours MW 4-5 pm, MWThF 2-3 pm. If you wish to see me any other time, just let me know, and we will arrange a meeting.

Course Description The course concerns the development and analysis of models of stochastic systems. There are three phases to the course. The first provides an introduction to the theory of stochastic processes. The second concerns modelling discrete event systems using simulation. The software Extend will be used to provide an introduction to the structure and use of a simulation environment. The third and last phase is devoted to further topics in stochastic modelling, and may include statistical aspects of simulation modelling, Brownian motion, signal processing, and Kalman filtering.

Exams every 5-6 weeks apart.

Grading There will be two exams, scheduled approximately every five to six weeks. Also, there will be a comprehensive final exam. Homework will be assigned and graded. The course grade will be based on the weighted average of the homework (5%), the average of the two exams (60%), and the final exam (35%). In cases when a student's calculated percentage is borderline, the instructor may raise the grade based on class participation and attendance, or any other evidence of a strong effort to do the course work.

Grade Scale A: 90-100 B: 80-89 C: 70-79 D: 60-69 F: 0-59

Attendance Class attendance is required. Please arrive on time. If you happen to miss a class, it is your responsibility to obtain from your classmates any missed lecture notes and assignments. However, see the instructor concerning class handouts.

Class Participation In addition to attending class, you are expected to actively participate in your own learning. In particular, you should come to class prepared, having studied the assigned readings and problems, and be ready to ask questions and participate in the class discussion.

Homework Homework due dates will be specified well in advance. Late papers will not be accepted.

Exam Make-up Policy No make-up exams will be given, unless you have a medical emergency or death in the family. These emergencies require valid documentation, and the instructor must be notified within 24 hours of the exam. The grade for a missed exam is zero.

Academic Dishonesty Academic dishonesty is obtaining or attempting to obtain credit for work by the use of any dishonest, deceptive, fraudulent, or unauthorized means. Academic dishonesty also includes helping someone commit an act of academic dishonesty. Examples of academic dishonesty include, but are not limited to:

1. Unacceptable examination behavior - communicating with fellow students, copying material from another student's exam or allowing another student to copy from an exam, possessing or using unauthorized materials, or any behavior that defeats the intent of an exam.
2. Plagiarism - taking the work of another and offering it as one's own without giving credit to that source, whether that material is paraphrased or copied in verbatim or near-verbatim form.
3. Unauthorized collaboration on a project, homework or other assignment where an instructor expressly forbids such collaboration.
4. Documentary falsification including forgery, altering of campus documents or records, tampering with grading procedures, fabricating lab assignments, or altering medical excuses.

Students who violate university standards of academic honesty are subject to disciplinary sanctions, including failure in the course, and suspension from the university. Since dishonesty in any form harms the individual, other students, and the university, policies on academic dishonesty are strictly enforced.

Emergency Information In the event of an emergency such as an earthquake or fire:

1. Take all your personal belongings and leave the classroom (or lab). Use the stairways located at the east, west, or center of the building.
2. Do not use the elevator. They may not be working once the alarm sounds.

3. Go to the lawn area towards Nutwood Avenue. Stay with class members for further instruction.
4. For additional information on exits, fire alarms and telephones, Building Evacuation Maps are located near each elevator.
5. Anyone who may have difficulty evacuating the building, please see the instructor.

Comments

1. Retain this course description and refer to it as needed during the semester.
2. All personal electronic devices, in particular cell phones, must be turned off during class.
3. Keep in mind that grades are not given, they are earned.
4. You are responsible for managing your outside responsibilities (work, family, and social) in order to allow sufficient time to meet the course requirements.