

SYRACUSE UNIVERSITY
MAT 526 SYLLABUS, SPRING, 2010

Instructor Professor Philip Griffin
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Office Hours M 9:00-10:30, W 10:30-12:30.

Course Description This is a first course in the theory of stochastic processes. Topics to be covered include random walks, branching processes, Markov chains, the Poisson process and queuing theory.

Text An Introduction to Stochastic Modeling, 3rd edition, by Taylor and Karlin

Mathematics Requirements MAT 521.

Learning Goals Students will be expected to

- 1) Use and understand basic mathematical notation;
- 2) Select and apply an appropriate mathematical model for certain elementary probabilistic problems;
- 3) Do basic hand calculations with accuracy.

Calculator No calculator is needed for this course.

Homework Below you will find a list of homework problems. These may be supplemented on occasion with additional problems assigned during class. It is your responsibility to be aware at all times of which homework problems are assigned. Time will be set aside in class to discuss the homework assignments.

Tests The dates for the tests will be announced at least one week in advance in class. If you miss any exam for a valid reason, an appropriate adjustment will be made to your point total at the end of the semester. There will be no make-ups.

Final Exam The final exam is scheduled for **Tuesday, May 11, 12:45-2:45**. Every student must take the exam at this time – no exceptions.

Grading There will be three tests and a final. The tests and the final will each count 25% toward your grade. The dates for the tests will be announced in class at least 1 week ahead. Grades for the course will be determined solely by the total number of points accumulated. There will be **no extra credit** assignments given.

Attendance You are expected to attend every class. If you are absent, it is your responsibility to find out what you missed, including any announcements. Frequent unexcused absences may be taken into account in determining your course grade.

Homework Assignments

| | Exercises | Problems |
|-----------|------------------------------------------------------------------------|---------------------------------------------------|
| Chapter 1 | 2.3, 2.4, 2.9 3.2, 3.5, 3.6 4.1, 4.6 | 2.1, 2.3 |
| Chapter 2 | 1.1, 1.6 3.1 | |
| Chapter 3 | 1.2, 1.5 2.1, 2.4, 2.6 3.2, 3.5 4.1, 4.2, 4.4, 4.5 6.1 | 1.1 3.1 4.1, 4.2, 4.4, 4.8, 4.11 5.1 |
| Chapter 4 | 1.1, 1.4, 1.8 3.1, 3.2, 3.4 4.1, 4.3 5.2 | 1.1, 1.2 3.2, 3.3 4.4 5.1 |
| Chapter 5 | 1.4, 1.7 1.9 2.4 3.1, 3.2, 3.3, 3.4, 3.6 4.2, 4.3, | 2.4 4.5 |
| Chapter 6 | 1.1, 1.2 2.2 3.1 4.2, 4.6 | 1.3, 1.4 2.2, 2.4, 2.6 3.1 |
| Chapter 3 | 9.1, 9.3 | 8.2, 8.3 9.1 |

Academic Integrity The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see <http://academicintegrity.syr.edu>

Disability Students who may need academic accommodations due to a disability are encouraged to discuss their needs with the instructor at the beginning of the semester. In order to obtain authorized accommodations, students should be registered with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498 and have an updated accommodation letter for the instructor. Accommodations and related support services such as exam administration are not provided retroactively and must be requested in advance." For more information about services and policy, see Office of Disability Services

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