

MAT 521 SPRING 2009

Section 1

Course Description: Topics to be covered include introduction to probability and statistics, algebra of sets, probability in finite sample spaces, binomial and multinomial coefficients, continuous and discrete random variables, distribution functions, expected value and standard deviation, statistical applications.

Prerequisite: 12 credit hours of calculus. (Students must be able to take partial derivatives, set up and evaluate multiple integrals, evaluate integrals, and work with elementary infinite series.)

Note: Mathematics graduate students should consider taking MAT 625 rather than MAT 521.

Textbook: Probability and Statistics, Third Edition, by Morris H. DeGroot and Mark Schervish. The course covers sections 1.1-1.10, 2.1-2.3, 3.1-3.9, 4.1-4.6, 4.8, 5.1-5.4, 5.6, 5.7, with lecture distribution by chapter 5, 3, 9, 3, 3 respectively.

Attendance: You are expected to attend every class, both midterm exams, and the final exam. If you must miss a class, it is your responsibility to obtain a copy of the lecture notes for that class from another student. **You are also responsible for any announcements that were made during that class.**

Examinations: There will be two in-class exams: Feb. 12 (Chaps 1, 2), Mar. 31 (Chap 3). In addition there will be a **Final Exam**, scheduled in accordance with the standard time table: <http://registrar.syr.edu/students/finalexams/index.html>

Make-up exams: There will be **NO MAKE-UP EXAMS**. A missed examination counts as a zero unless you present a valid excuse, for example a physician's note.

Grading: Each of the in-class exams counts for 25%, while the final exam makes up 30%. The remaining 20% will be based on homework and quizzes. Quizzes must be taken in class. There will be no make-up quizzes.

Note: Students who may need special consideration because of any sort of disability should make an appointment to see their instructor during office hours. This should be done early in the semester. No accommodations can be made retroactively. *More details on last page.*

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 their work. Sanctions for violating this policy range from a zero on the relevant work to a grade of F in the course. Violators will be referred to the College for any appropriate further action. *More details on last page.*

Course supervisor: Prof. Jack Ucci, 229B Physics, jjucci@syr.edu, x-1492. Any problems should be brought to the attention of your instructor first.

Section 200 instructor: Prof. Jack Ucci, 229B Physics, jjucci@syr.edu, x-1492. Off. Hrs: M 3:45 - 4:45, Tu 2 - 3, Th 2 - 3.

This is a tentative list of the problems that should be done for each section of the book. Your instructor may make changes to this list.

- I.4: 6, 7.
- 1.5: 1 - 8.
- 1.6: 1 - 6, 8.
- 1.7: 1 - 10.
- 1.8: 1, 4, 9 - 13, 16 - 18.
- 1.9: 1-4, 6-10.
- 1.10: 2 - 4, 6 - 8, 10, 11.
- 2.1: 1-4, 6-9.
- 2.2: 1, 4 - 10, 12 - 18.
- 2.3: 1, 3, 4, 6-9.
- 3.1: 1 - 8.
- 3.2: 1 -4, 7, 8.
- 3.3: 1, 2, 4-8.
- 3.4: 1 -6, 8.
- 3.5: 1 -8, 10, 11.
- 3.6: 1, 2, 4, 6-8.
- 3.7: 1, 5-7.
- 3.8: 1, 2, 4, 6-8.
- 3.9: 1-7.
- 4.1: 1-9.
- 4.2: 2-4, 6, 8, 9.
- 4.3: 1-4, 6, 7.
- 4.4: 1 - 3, 6 - 8, 10 - 12.
- 4.5: 2 - 4, 6, 9, 12.
- 4.6: 1, 3, 5, 10, 12 -14.
- 4.8: 2, 5, 6, 8.
- 5.2: 1, 3 - 7.
- 5.3: 2 - 5.
- 5.4: 2 - 4, 6, 7, 12 - 14.
- 5.6: 2, 3, 5 - 7, 9 - 11, 13, 14.
- 5.7: 1 - 3, 5, 8, 9, 11.

To learn the application of differential and integral calculus to probability and statistics.

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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