

SYRACUSE UNIVERSITY MAT 521, INTRODUCTION TO PROBABILITY AND STATISTICS SSI, 2014 SYLLABUS

Instructor: Professor Declan Quinn, 229D Physics Building.

Telephone: 443-1480 **email:** dpquinn@syr.edu

Office Hours: Tuesday & Thursday 1:10pm – 2:00pm
Wednesday 3.30pm – 4:30pm (In 229D Physics.)
(In addition, after most classes I will stay to answer questions.)

Course Description: Algebra of sets. Probability in finite sample spaces. Binomial and multinomial coefficients. Random variables. Expected value and standard deviation. Density functions. Statistical applications.

Text: *Probability and Statistics*, Fourth Edition, by Morris H. DeGroot and Mark J. Schervish.

Mathematics Prerequisites: MAT 397, or graduate standing in mathematical sciences.

Grading Grades for the course will be based on the total number of points accumulated on quizzes, two midterm tests and the final exam. The two tests, final and quizzes each count 25% toward your grade. The tests will be given on the second and fourth Thursday of the session and the final exam on the last Thursday of the session. There will be absolutely no make-ups exams. If you miss a test for a valid reason, the corresponding portion of the final will be used to make up the missing score. To allow for emergencies, you may miss one quiz. If you take all the quizzes, your lowest quiz score will be dropped.

Homework: In order to learn this material it is vital that you do problems. Time will be allotted at the beginning of each class period to answering questions about the homework assignments. In addition the quizzes and exams will have a very large overlap with homework, although it is also important to have studied the material covered in class.

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.

Learning Goals and Expectations: Students are expected to master the basic notions of probability and to acquire the skills necessary for the application of these notions to the further study of probability and/or statistics.

Disabilities: 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 contact the Office of Disability Services.

Office of Disability Services: Office of Disability Services, 804 University Avenue Room 309, Syracuse, New York 13244-2330 (315) 443-4498 TDD: (315) 443-1371

e-mail: odssched@syr.edu

Approximate day-by-day schedule. (Attempt the relevant homework as soon as section is covered in class. Some additional problems will be assigned in class on occasions.)

Mon	5/19	1.4 1.5	1, 6, 7 1, 2, 3, 4, 5, 6, 7, 8, 10
Tues	5/20	1.6 1.7	1, 2, 3, 4, 5, 6, 8 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Wed	5/21	1.8 1.9	1, 4, 9, 10, 11, 12, 13, 16, 17, 18 1, 2, 3, 4, 6, 7, 8, 9, 10
Thurs	5/22	1.10 2.1	2, 3, 4, 6, 7, 8, 10, 11 1, 2, 3, 4, 6, 7, 8, 9
Tues	5/27	2.2 2.3	1, 4, 9, 10, 11, 12, 13, 16, 17, 18 1, 3, 4, 6, 7, 8, 9
Wed	5/28	3.1 3.2	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 7, 8
Thurs	5/29		Review/Exam 1 (55 Minutes)
Mon	6/2	3.3	1, 2, 4, 5, 6, 7, 8
Tues	6/3	3.4 3.5	1, 2, 3, 4, 5, 6, 8 1, 2, 3, 4, 5, 6, 7, 8, 10, 11
Wed	6/4	3.6	1, 2, 4, 6, 7, 8
Thurs	6/5	3.7 3.8	1, 5, 6, 7 1, 2, 4, 6, 7, 8
Mon	6/9	3.9	1, 2, 3, 4, 5, 6, 7
Tues	6/10	4.1 4.2	1, 2, 3, 4, 5, 6, 7, 8, 9 2, 3, 4, 6, 8, 9
Wed	6/11	4.3 4.4	1, 2, 3, 4, 6, 7 1, 2, 3, 6, 7, 8, 10, 11, 12
Thurs	6/12		Review/Exam 2 (55 Minutes)
Mon	6/16	4.5 4.6	2, 3, 4, 6, 9, 12 1, 3, 5, 10, 12, 13, 14
Tues	6/17	5.2 5.3	1, 3, 4, 5, 6, 7 2, 3, 4, 5, 7
Wed	6/18	5.4	2, 3, 4, 6, 7, 12, 13, 14
Thurs	6/19	5.6	2, 3, 5, 6, 7, 9
Mon	6/23	6.2	1, 5, 6, 8
Tues	6/24	6.3	1, 2, 3, 4, 7, 9
Wed	6/25		Review/Catchup
Thurs	6/26		Final Exam (105 Minutes)