

SYRACUSE UNIVERSITY
MAT 521, INTRODUCTION TO PROBABILITY AND STATISTICS
SUMMER 2015 SYLLABUS

SECTION: M002 (Class No: 70701)

Class: MoTuWeTh 2:00PM - 3:45PM in Hall of Languages 114

Instructor: Thomas John, Ph.D.

Contact Info: Office: Carnegie 219A, Phone: 443-1587, email: thjohn@syr.edu

Office Hours: MoTuWeTh 12:30-1:45 PM in **Hall of Languages 114**, or by appointment

Note: Due to construction in Carnegie, note that the office hours will be held in Hall of Languages 114, in the same classroom as the lecture, right before class meeting.

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*, 4th Ed, by DeGroot and Schervish, ISBN-13: 9780321500465. The material covered in this course appears in Chapters 1 thru 6.

Mathematics Prerequisite: MAT 397.

Grading: Grades for the course will be based on the total number of points accumulated on quizzes, three tests and the final. The three tests will count 20% each, the quizzes 10% and the cumulative final exam 30% toward your grade. There will be absolutely no make-ups for any reason. If you miss a quiz/test for a valid reason (which must be verified by a note from a physician or your dean's office), performance from the corresponding part of a test/final will be used as replacement.

Exams: The dates for the exams are:

Test 1: Thu, May 28

Test 2: Tue, June 9

Test 3: Wed, June 17

Cumulative Final: Thursday, June 25

The final will only be given at this time, so do not make plans to leave town before 3:45 pm on Thursday, June 25.

Homework: At the end of this syllabus is a list of homework problems for the course. Additional problems will be handed out in lectures. You may discuss these problems among yourselves, but each of you is expected to know how to write up your own solutions independently. The best way to learn this material is to do homework problems. Some of the problems may be asked to be turned in.

Quiz: There will be a quiz almost every lecture except on the days of the exams. The topics covered in the quiz will be announced in the previous lecture.

Attendance: You are expected to attend every class, every hour exam, and the final exam. If you 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 about changes to the course schedule, the exam schedule, or the course requirements that were made during that class.

Cell Phones: Cell phones should be turned off and put away during class. **This policy will be strictly enforced in class.** Calculators on cell phones may not be used on tests.

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.

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 academic integrity. Serious sanctions can result from academic dishonesty of any sort. For the complete policy, see <http://academicintegrity.syr.edu>.

Disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations.

HOMEWORK PROBLEMS:

SECTION	PROBLEMS
1.4	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

SECTION	PROBLEMS
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
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
6.2	1, 5, 6, 8
6.3	1–4, 7, 9