

**SYRACUSE UNIVERSITY**  
**MAT 521, INTRODUCTION TO PROBABILITY AND STATISTICS**  
**SUMMER 2016 SYLLABUS**

**SECTION:** M001 (Class No: 70266)

**Class:** MoTuWeTh 4:00PM - 5:45PM in Hall of Languages 214

**Instructor:** Thomas John, Ph.D.

**Contact Info:** Office: Carnegie 313A, Phone: 443-1587, email: thjohn@syr.edu

**Office Hours:** Tue & Thu 2:45 PM - 3:45 PM, or by appointment

**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.

Final grades will be assigned according to the following scale:

A (93-100)	A- (90-92)	B+ (87-89)	B (83-86)	B- (80-82)
C+ (77-79)	C (73-76)	C- (70-72)	D (60-70)	F (0-59)

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, June 2

Test 2: Tue, June 14

Test 3: Wed, June 22

**Cumulative Final: Thursday, June 30**

**The final will only be given at this time, so do not make plans to leave town before 5:45PM on Thursday, June 30.**

**Homework:** At the end of this syllabus is a list of homework problems from the textbook. Additional problems will be assigned 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. 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 regular semester 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 cannot be used on quizzes or 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>.

The key academic integrity aspect for this course comes from the quizzes and the exams the student completes during the course. All quizzes and exams will be closed books and closed notes. Except for the calculator, accessing any other material (electronic or hard copy or from another student) during quizzes and exams will be considered as academic dishonesty. In particular, sharing a calculator with another student or using the calculator on the cell phone or simply accessing the cell phone during quizzes and exams will be considered as academic dishonesty.

**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:**

SEC.	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

SEC.	PROBLEMS
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

SEC.	PROBLEMS
4.2	2-4, 6, 8, 9
4.3	1-4, 6, 7
4.4	1-3, 6-12
4.6	1, 3, 5, 10-14
4.7	1-10
5.2	1, 3-7
5.4	2-7, 12-14
5.6	2-7, 9-14
6.2	1,5, 6, 8
6.3	1-4, 7, 9