

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

**SECTION:** M002 (Class No: 31812)

**Class:** Mon & Wed 2:15PM - 3:35PM in Carnegie 110

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

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

**Office Hours:** TBA and by appointment

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

**Course Description:** Chapters 1-6 of DeGroot and Schervish cover the topics of this course. These include basic probability theory, random variables, expectation, limit theorems, statistical applications, and analysis of large random samples.

**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 homework, quizzes, two tests and the final. The two tests will count 25% each, the homework & quizzes 20% 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: Wed, October 1

Test 2: Wed, November 12

Final: Monday, December 8, 12:45PM - 2:45PM

**The final will only be given at this time, so do not make plans to leave town before 2:45 pm on Monday, December 8.**

**Homework:** The second page of this syllabus has a list of assigned homework problems for the course. You may discuss these problems with other students, but each of you is expected to write up your own solutions independently. The best way to learn this material is to do homework problems. Some of the problems will be asked to be turned in.

**Quiz:** There will be a quiz almost every other lecture. These quizzes will be one or two problems very similar to the homework problems. The specifics will be announced in lecture ahead of time.

**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.

**Fall 2014 - Academic Calendar Dates:**

- Monday, September 15: Financial drop deadline
- Monday, October 20: Academic drop deadline
- Friday, November 21: Last day to withdraw

**HOMEWORK ASSIGNMENTS:**

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

**Students with 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 303 of 804 University Avenue, or call 315-443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible coordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for

disability-related accommodations.

**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>

**Religious observances policy:** SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services > Enrollment > My Religious Observances) from the first day of class until the end of the second week of class.