

MAT 521 – Introduction to Probability – Fall 2012
Section 1

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.

Prerequisites: MAT 397 (calculus including infinite series, partial derivatives, and multiple integrals).

Instructor: JT Cox, jtcox@syr.edu, 443-1488

Class Time and Location: MW 12:45–2:05, Carnegie 300

Office Hours: held in Carnegie 213B

- Tuesday 10am-12pm
- Friday 1-3pm
- At other times by appointment

Texts: (1) A calculus book, (2) *Probability and Statistics 4th Ed.*, by Morris DeGroot and Mark J. Schervish

Homework: Problems will be assigned regularly, possibly including calculus review problems. Also, we may make use of the online system *WeBWork*. It is impossible to stress how important it is to work, and understand(!), all assigned problems.

Exams: There will be two midterms and a comprehensive final exam. No make-up exams will be given. Only complete solutions, and not merely answers must be presented to receive credit. Calculator and all other electronic devices are **prohibited** during exams, they must be **turned off** during exams.

Exam Dates: The **tentative** exam dates, **subject to change**, are Oct 10 and Nov 14. The final exam is scheduled for Dec 14, 10:15-12:15. You must be present for this exam.

Grading: The following **approximate** grading scheme will be used. Each midterm exams will count 30%, the final exam will count 40%. This may be changed to include credit for quizzes and/or homework.

Class Attendance and Participation: You are expected to attend and participate in class, arriving on time. Missing class is the most common reason for poor performance in the course. If you miss a class, you are responsible for obtaining notes for that class from a student who attended. It is also your responsibility to find out about any announcements made in class. If class attendance becomes a problem, unannounced quizzes will be given and counted for course grades.

Learning Goals: Students will be expected to

- use and understand basic mathematical notation
- select and apply an appropriate mathematical model for certain elementary probabilistic problems
- use calculus-based techniques to solve problems in probability

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 309 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 for 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.**

Academic Integrity . Syracuse University sets high standards for academic integrity. Those standards are supported and enforced by students, including those who serve as academic integrity hearing panel members and hearing officers. The presumptive sanction for a first offense is course failure, accompanied by the transcript notation "Violation of the Academic Integrity Policy". The standard sanction for a first offense by graduate students is suspension or expulsion. Students should review the Office of Academic Integrity online resource "Twenty Questions and Answers About the Syracuse University Academic Integrity Policy" and confer with instructors about course-specific citation methods, permitted collaboration (if any), and rules for examinations. The Policy also governs the veracity of signatures on attendance sheets and other verification of participation in class activities. Additional guidance for students can be found in the Office of Academic Integrity resource: "What does academic integrity mean?" Related links are:

1. The Academic Integrity Policy: <http://academicintegrity.syr.edu/academic-integrity-policy/>
2. Twenty Questions and Answers about the Academic Integrity Policy: <http://academicintegrity.syr.edu/faculty-resources/>
3. What does academic integrity mean?: <http://academicintegrity.syr.edu/what-does-academic-integrity-mean/>

Religious Observances Policy: Syracuse University's religious observances policy, found at http://supolicies.syr.edu/emp_ben/religious_observance.htm, recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days 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.