MAT 521 – Introduction to Probability & Statistics – Fall 2009

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: 12 credits of calculus (calculus through infinite series, partial derivatives, and multiple integrals).

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

Class Time and Location: TTh 12:30–1:50, Carnegie 208

Office Hours: held in **Carnegie 213B**

- Mon 9-10:30
- Wed 9-10:30
- At other times by appointment

Texts: (1) A calculus book, (2) *Probability and Statistics 3rd Ed*., by Morris DeGroot and Mark J. Schervish. We will cover (roughly) Chapters 1-5.

Class webpage: TBA

Homework: Problems will be assigned regularly, both calculus review problems and probability problems. You are encouraged to discuss assigned problems with your classmates and work together.

WeBWorK: We will use the web-based system *WeBWorK* for both calculus review homework and most probability homework sets. The website is:
http://webwork.syr.edu/webwork2

Exams: There will be two midterms and a comprehensive final exam. No make-up exams will be given. The *tentative* midterm exam dates are Oct 13 and Nov 19. The final exam is scheduled for Dec 18, 10:15-12:15.

Calculators: Calculators may not be used during exams.

Grading: The following *approximate* grading scheme will be used. Homework 30%, midterm exams 40%, final exam 30%.

Attendance and Participation: You are expected to attend and participate in class. 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.

Learning Goals: Students will be expected to

- understand the nature and role of deductive reasoning in mathematics

- ability to apprehend and enunciate the limitations of conclusions drawn from mathematical models
- ability to do hand calculations accurately and appropriately
- select and apply an appropriate mathematical model for certain elementary probabilistic problems
- use calculus-based techniques to solve problems in probability

Disability-Related Accommodations. 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. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations.

Academic Integrity Statement. 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