

- **Instructor** Vladimir Pozdnyakov
Office CLAS 336
Email vladimir.pozdnyakov@uconn.edu
Office Hours Mon/Wed 11-noon, CLAS 336
- **Lectures** Mon 12-2pm/Wed 12-1pm, CLAS 313
- **Class Web Page** <http://merlot.stat.uconn.edu/~boba/stat3345/>
- **Text** Introduction to Probability and Its Applications
Richard L. Scheaffer and Linda J. Young
- **Syllabus**
 - Probability. A Review of Set Notation. A Probabilistic Model for an Experiment: The Discrete Case. Calculating the Probability of an Event: The Sample-Point Method. Tools for Counting Sample Points: Permutations and Combinations. Conditional Probability and the Independence of Events. Laws of Probability. Probability Tree. The Law of Total Probability and Bayes's Rule.
 - Discrete Random Variables and Their Probability Distributions. Basic Definition. The Probability Distribution for Discrete Random Variable. The Expected Value of Random Variable or a Function of Random Variable. The Binomial Probability Distribution. The Geometric Probability Distribution. The Hypergeometric Probability Distribution. Tchebysheff's Theorem.
 - Continuous Random Variables and Their Probability Distributions. The Probability Distribution for Continuous Random Variable. The Expected Value for Continuous Random Variable. The Uniform Probability Distribution. The Normal Probability Distribution. The Gamma Probability Distribution. The Beta Probability Distribution. Tchebysheff's Theorem.
 - Multivariate Probability Distributions. Bivariate and Multivariate Probability Distributions. Independent Random Variables. The Expected Value of a Function of Random Variables. The Covariance of Two Random Variables. The Expected Value and Variance of Linear Functions of Random Variables. The Multinomial Probability Distribution. Conditional Expectations.
 - Functions of Random Variables. Introductions. Finding the Probability Distribution of a Function of Random Variables. The Method of Distribution Functions. Order Statistics.
 - Sampling Distributions and the Central Limit Theorem. Sampling Distributions Related to the Normal Distribution. The Central Limit Theorem. The Normal Approximation to the Binomial Distributions.
- **Exams**
 - Midterm exam March 19, 12-1:55pm, CLAS 313
 - Final exam April 30, 1-3pm, CLAS 313

- **Grades**

- both midterm exam and final exam are in-class exams, open book and class notes
- grades are based on the following sum: midterm exam (100 points) + final exam (100 points) + homework/quizzes (100 points)
- final exam covers only the second half of the course
- there will be no make-up exams

- **Academic Integrity**

A fundamental tenet of all educational institutions is academic honesty; academic work depends upon respect for and acknowledgement of the research and ideas of others. Misrepresenting someone else's work as one's own is a serious offense in any academic setting and it will not be condoned.

Academic misconduct includes, but is not limited to, providing or receiving assistance in a manner not authorized by the instructor in the creation of work to be submitted for academic evaluation (e.g. papers, projects, and examinations); any attempt to influence improperly (e.g. bribery, threats) any member of the faculty, staff, or administration of the University in any matter pertaining to academics or research; presenting, as one's own, the ideas or words of another for academic evaluation; doing unauthorized academic work for which another person will receive credit or be evaluated; and presenting the same or substantially the same papers or projects in two or more courses without the explicit permission of the instructors involved.

A student who knowingly assists another student in committing an act of academic misconduct shall be equally accountable for the violation...¹

¹The Student Code, Part VI: Academic Integrity in Undergraduate Education and Research