

- **Instructor** Vladimir Pozdnyakov
Office CLAS 336
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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/stat3445/>
- **Text** Mathematical Statistics with Applications
D.D. Wackerly, W. Mendenhall III, and R.L. Scheaffer
- **Syllabus**
 - *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.
 - *Estimation*: the bias and mean square error of point estimators, some common unbiased point estimators, confidence intervals, large-sample confidence intervals, selecting sample size, small-sample confidence intervals for μ and $\mu_1 - \mu_2$, confidence intervals for σ^2 .
 - *Properties of Point Estimators and Methods of Estimation*: relative efficiency, consistency, sufficiency, Rao-Blackwell theorem and Minimum-Variance Unbiased Estimators, the method of moments, the method of maximum likelihood.
 - *Hypothesis Testing*: elements of a statistical tests, common large-sample tests, calculating type II error probabilities for z -tests, p -value, small-sample hypothesis testing for μ and $\mu_1 - \mu_2$, power of test and Neyman-Pearson Lemma.
- **Exams**
 - Midterm exam March 1, 12-2pm, CLAS 344
 - Final exam May 3, 1-3pm, CLAS 344
- **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