Stat 1350
Elementary Statistics
3 semester hours

Prerequisites: Qtrs: Math 050, or Mathematics Placement Level S; Sem: Math 1050, or Mathematics Placement Level S; or permission of instructor

Class Distribution: Three classes each week will include one lecture hall presentation of content and some examples, one day in lecture hall with problem solving and more examples, and one day in computer lab with activities (with credit for pre-labs to make class time more efficient). Buffet model at Columbus campus will give choices on type of lab activities and in-class versus on-line versions of large group component(s).

Statistics 1350 is a Data Analysis course in the Quantitative and Logical Skills category of the GEC.

Tentative topics plan
Week 1 sample surveys & interpretation of confidence intervals
Week 2 sample survey caveats & observational studies
Week 3 Experiments & interpretation of significance tests

Week 4 Graphical displays of data
Week 5 Summary statistics and Normal curve
Week 6 Measurement issues (reliability/bias/validity and accuracy of averages)
Week 7 Tables and Correlation
Week 8 Regression

Week 9 Probability and LLN
Week 10 Probability models and simulation
Week 11 Sampling Distributions
Week 12 Confidence Intervals
Week 13 Significance Tests
Week 14 Significance test caveats

Conversion note:
Conversion from a 5 credit-hour quarter course Stat 135. Topics are integrated more completely. For example, discussions of design are more informed by the type and interpretation of statistical analyses and discussions of interpreting statistical analyses involve aspects of the study design to a greater degree. As a second example, when measurement issues are discussed early in the term we will delve deeper into the reliability of averages to enforce the sampling theory coming later.

added: more sophisticated graphical displays
added: simulation

removed: simple graphs, means, medians

updated 5th Jan 2011