

Syllabus for Biostatistics I (M21-560)

Coursemaster: Ken Schechtman, PhD. kschechtman@wustl.edu, 362-2271

Co-coursemasters

Biostat 1: Mike Wallendorf, PhD, mwallendorf@wustl.edu, 362-3284

Course text: The course is based entirely on instructor notes and no text is required. The book *Fundamentals of Biostatistics* by Bernard Rosner is a recommended reference.

40% of the grade will be based on the final exam, 30% on quizzes, and 30% on homework.

Syllabus for Biostatistics I: All classes meet from 8:00 to 11:30 on Monday and Wednesday.

Date	Topics	Presenter
8/28/17	Hypothesis test logic, measures of central tendency, standard deviation and standard error, confidence intervals, t-tests, Wilcoxon's test	Schechtman
8/30/17	Lab: hypothesis tests about means	Schechtman
9/4/17	Labor day: no class	
9/6/17	Chi square tests, McNemar's test, goodness-of-fit tests, Mantel Haenszel procedures, measures of agreement, Kendall's tau, kappa statistics	Wallendorf
9/11/17	Lab: Hypothesis tests about proportions	Wallendorf
9/13/17	Simple and multiple linear regression, polynomial regression, correlation	Schechtman
9/18/17	Lab: Regression analysis	Schechtman
9/20/17	Analysis of Variance	Schechtman
9/25/17	Lab: Analysis of variance	Schechtman
9/27/17	Multi factorial analysis of variance	Wallendorf
10/2/17	Lab: Multi factorial analysis of variance	Wallendorf
10/4/17	Odds ratio, risk ratio, sensitivity and specificity, attributable risk, logistic regression, interpreting interactions in logistic regression, ROC curves	Schechtman
10/9/17	Lab: logistic regression	Schechtman
10/11/17	Final exam	