2016

BIOL 106--Introductory Biostatistics

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Syllabus: Introductory Biostatistics, Biology 106, Todd Livdahl, Instructor

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Text: Whitlock and Schluter, 2015. *The analysis of biological data, 2nd Ed*. Ro

Week 1	Introduction, course plan
Week 2	Science, Experimental Design
Week 3	Basic quantitative methods: biologically use functions
Week 4	Data in Biology Samples and variables Frequency distributions, graphics
Week 5	Descriptive statistics of location of dispersion parameters and statistics replication and pseudoreplication
Week 6	Estimation and hypothesis testing

Week 7	Tests involving proportions Binomial distribution Poisson distribution
Week 8	Contingency tests
Weeks 9 & 10	Normal distribution Confidence limits for means t-distribution t-tests comparisons of variances One-way analysis of variance
Week 10	Correlation Regression
Week 11	Two and three-way analyses of variance Multiple Regression, Analysis of covariance, Nonlinear fitting
Week 12	Testing assumptions, fixing problems Nonparametric statistics
Week 13	Resampling methods, Bootstrap Project presentations
Week 14	Project presentations