Graded Work

There will be seven homework assignments, two projects and a final examination. Assignments involve using various datasets and being able to use the software program to find and interpret the concepts presented in the class. Student's course grade will be based on the final course average, in computing which the graded work will be weighted as follows:

Assignments	30%
Quizzes and Attendance	10%
Projects	30%
Final Examination	30%

Syllabus:

Wk	Topic	Reference
1	Review: Looking at Data. Random Variables. Sampling distributions. Estimating Population Mean and Population Proportion. Introduction to R.	Ch.1, Ch.2 (2.1, 2.2), Ch.5
2	Review: Confidence intervals and Testing Hypotheses on Population Means and Proportions	Ch.6, 7.1, 8.1
3	Two Population test of Means and Proportions	7.2, 8.2
4	Tests of Population Variance and Two Populations Variances	7.3
5-6	Simple Linear Regression. Least Squares Fitting; Analysis and Testing Model Utility. Prediction of future values	Ch.10, 2.3-2.5
6-7	Multiple Regression. Data, model estimation of the regression parameters. Confidence intervals, ANOVA table, multiple R^2, residuals. Selection of variables. Part one of the project due (Read Ch. 3 to help you with data gathering)	Ch. 11
8	Categorical Data Analysis. One and Two Way Tables. Goodness of Fit	Ch. 9
9	One-Way Analysis of Variance	Ch. 12
10-11	Two-Way Analysis of Variance	Ch. 13
12	Analysis of Covariance and Logistic regression	Ch.16 and notes
13	Bootstrap Method and Permutation tests	Ch. 14
14	Second Part of the project due. Review.	

The accompanying lectures posted on the website follow in general the weekly schedule.