

009/21	<p>The Conditional Mean function The Conditional Variance function Conditional Distributions</p> <p>Linear Regression as a Predictive System Fitted (Predicted) Values Residuals OLS Estimates of betas, and Their Properties Constructing Confidence Intervals Estimating σ^2 The Analysis of Variance and <i>F</i>-test Standard Error of Prediction Sources of Predication Error The Coefficient of Determination R^2</p>	Do Homework Assignment 2
<i>Week 5</i>		
09/26-28	<p>Review of the Algebra of Expected Values, Variances, Covariances, Linear Combinations Matrix Expected Value Algebra Multiple Regression Adding a Predictor to a Simple Linear Regression Added Variable Plots Polynomials, Interactions, and Factors The Multiple Regression Surface Matrix Algebra of Multiple Regression The Geometry of Multiple Regression The Analysis of Variance in Multiple Regression</p>	<p>Read ALR, Chapter 3</p> <p>Do Homework Assignment 3</p>

<i>Week 6</i>		
10/03-05	<p>Drawing Conclusions from a Regression Analysis</p> <ul style="list-style-type: none"> Understanding Parameter Estimates Rate of Change, Signs of Estimates Interpretational Dependencies between Coefficients Rank Deficient and Over-Parameterized Mean Functions Tests Dropping Terms Logarithms Experimentation Versus Observation <p>Sampling from a Normal Population</p> <p>More on R^2</p> <p>Simple Linear Regression and R^2</p> <p>Multiple Linear Regression</p> <p>Regression through the Origin</p> <p>Missing Data</p> <ul style="list-style-type: none"> Missing at Random Alternatives <p>Computationally Intensive Methods</p> <ul style="list-style-type: none"> Regression Inference without Normality Nonlinear Functions of Parameters Predictors Measured with Error 	<p>Read ALR, Chapter 4</p> <p>Do Homework Assignment 4</p>
<i>Week 7</i>		
10/10-12	<p>Weighted Least Squares Regression</p> <p>Testing for Lack of Fit, Variance Known</p> <p>Testing for Lack of Fit, Variance Unknown</p> <p>General F Testing, 105</p> <p>Non-Null Distributions and Power</p> <p>Joint Confidence Regions</p>	<p>Read ALR, Chapter 5</p> <p>Do Homework Assignment 5</p>