

## Overview

### **Statistics of Well-Behaved Data (44 slides)**

Probability Concepts  
Measures of Location and Spread  
Functions of Random Variables  
Confidence Intervals  
Hypothesis Testing

### **Statistics of Real Data (24 slides)**

Identifying Outliers and Non-Gaussian Data  
Effect of Outlier on Location  
Effect of Outliers on Spread  
Confidence Interval for the Trimmed Mean

### **Regression with Well-Behaved Data (44 slides)**

Introduction to Curve Fitting  
Least-Squares Fit to a Straight Line  
Generalized Least-Squares  
Non-Linear Least-Squares  
Confidence and Correlation

### **Regression with Real Data (18 slides)**

Problems and Warnings  
Diagnostics and Remedial Measures  
Robust Regression