## Course Goals

- 1. To read graphs critically.
  - Is a graph drawn well?
  - How can a graph be improved?
  - What information does a plot communicate?
  - What information should it communicate?
- 2. To become familiar with many different plots and graphical tools. For example
  - Scatterplots

and plots for

- Univariate Data
- Regression Analysis
- Multivariate Data
- Longitudinal Data
- 3. To learn how to design and produce good graphics.
- 4. To gain a basic understanding of regression.
  - Linearity
  - Residuals
  - Coefficients
  - Smoothers
  - Dependence
- 5. To gain practice in exploratory data analysis.
- 6. To learn R and R graphics.

## Learning Objectives

- 1. To be able to critically evaluate tables and graphics.
- 2. To become familiar with many different plots and graphical tools.
- 3. To learn how to design and produce good graphics.
- 4. To learn about and practice exploratory data analysis.
- 5. To learn R and R graphics.