

# Advanced Labs

These labs focus on more advanced topics. They are presented in the order that we follow them in our workshop, but most should be fairly independent of each other.

**NOTE:** All these links take you to HTML versions of the labs. But if you change the link extension to “.pdf”, you will get a more print-friendly version.

**Data Manipulation Lab**<sup>1</sup> Discusses various issues with loading a data set, cleaning up the data and preparing it for further analysis.

**Advanced Graphing Lab**<sup>2</sup> Details the ggplot2 package and the ecosystem built around it, to produce powerful visualizations.

**Advanced Modeling Lab**<sup>3</sup> Introduction to the various modeling tools in R with an emphasis towards linear regression and ANOVA.