At the end of the hour you have code for and should be able to:

- (Open RStudio; Open Project; Put datasets in the Project folder
  - Re-arrange the 4 Panes for working together
  - Appreciate the saving of several objects together
  - Bring in a saved dataset for subsequent work
  - Make a variable into a factor
  - Check recoding)
- Revise Statistical Pillars
  - (7 essential reasons why statistics is very rigorous)
  - Understand the need for a reproducible research workflow
- Statistical Assumptions
- Code for the three types of t test
  - Single sample t test
  - Two sampled t test (equal or unequal n)
  - Paired t test t test
- Revise Power and Sample size calculations
- Code for ANOVA factorial
  - Design and randomise for a Randomised Complete Block Design
  - Blocking, Factorial structure
  - Analysis, mean separation
- Code for Simple Linear Regression
  - Specify a linear model
  - State three commands useful in linear modelling
  - Write a model statement with appropriate options
  - Understand the polynomial tests (briefly)
  - Understand a residual plot
  - Run analysis and interpret output
  - Be aware of 3 diagnostics for the model assessment
  - Be able to compare models
  - Be able to choose and justify a particular model

- Useful Resources.
  - Books and packages
  - Help
  - Online Sources
  - Consult a Statistician when in doubt
  - Never too early to consult a statistician

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