

# Curriculum Overview

## Week 1

### Day 1

- R: basics; atomic vectors; simple functions
- Data science: UN infant mortality data & Galton height data; simple linear regression, plotting results, adjusted R-squared
- Work order: `r-basics.pdf`, `r-atomic-vectors.pdf`, `r-intro-functions.pdf`, `linreg-undata.pdf`, `linreg-galton.pdf`

### Day 2

- R: names, lists, data frames; subsetting; miscellaneous exercises
- Data science: Galton height data, States data, MCAS data, etc.; more linear regression, stepwise regression, `corrplot`
- Work order: `r-names-lists.pdf`, `r-subsetting.pdf`, `r-misc-problems.pdf`

### Day 3

- R: attributes, factors, matrices
- Data science: simulated data about regressions
- Work order: `simulated-data-regressions.pdf`, `r-attributes-factors-matrices.pdf`

### Day 4

- R: functional programming
- Data science: problems from Gelman and Hill
- Work order: `r-functional.pdf`, `r-functional-2.pdf`

### Day 5

- R:
- Data science:

## **Week 2**

**Day 1**

**Day 2**

**Day 3**

**Day 4**

**Day 5**

## **Week 3**

**Day 1**

**Day 2**

**Day 3**

**Day 4**

**Day 5**

## **Week 4**

**Day 1**

**Day 2**

**Day 3**

**Day 4**

**Day 5**

## **Week 5**

**Day 1**

**Day 2**

**Day 3**

**Day 4**

**Day 5**

## **Week 6**

**Day 1**

**Day 2**

- dplyr
- ggplot2
- memoise
- pryr?
- evaluate?
- GGally
- profvis
- knitr