

# Introduction to data entry, visualization, and statistics

for first year biology

*Amy Hurford*

*2019-12-11*



# Contents

|          |  |           |
|----------|--|-----------|
| <b>1</b> | <b>Introduction</b>                                    | <b>5</b>  |
| <b>2</b> | <b>Entering data</b>                                   | <b>7</b>  |
| <b>3</b> | <b>Submitting your data to a repository</b>            | <b>9</b>  |
| <b>4</b> | <b>How to install R and R Studio</b>                   | <b>11</b> |
| 4.1      | R . . . . .  | 11        |
| 4.2      | RStudio . . . . .                                      | 11        |
| <b>5</b> | <b>Finding your way around RStudio</b>                 | <b>13</b> |
| <b>6</b> | <b>Installing a package</b>                            | <b>15</b> |
| <b>7</b> | <b>A simple approach for loading data into RStudio</b> | <b>17</b> |
| <b>8</b> | <b>Making a graph with ggplot in RStudio</b>           | <b>19</b> |
| <b>9</b> | <b>Data submission</b>                                 | <b>21</b> |



# Chapter 1

## Introduction

- Why is this important
- Why have we made the choices we did (R, pedagogy citations)



## Chapter 2

# Entering data

In a text editor or excel.





## Chapter 3

# Submitting your data to a repository



## Chapter 4

# How to install R and R Studio

### 4.1 R

Each section will contain instructions describing how to install these software.

### 4.2 RStudio



## Chapter 5

# Finding your way around RStudio



## Chapter 6

# Installing a package





## Chapter 7

# A simple approach for loading data into RStudio



## Chapter 8

# Making a graph with ggplot in RStudio



## Chapter 9

# Data submission

- via upload file into github
- direct edit of github