Elementary Statistics: Math 080

Jordan Hanson

July 3, 2020

Whittier College Department of Physics and Astronomy

Course Introduction

- 1. What is statistical analysis?
- 2. Math 080: Elementary Statistics
- 3. Read the syllabus for a roadmap
- 4. This is an online summer course that meets each day.
- 5. Data science project and presentation
- Textbook: https://openstax.org/details/books/ introductory-statistics
- 7. Download and install Excel, or LibreOffice Calc

Lecture format, with modifications

- Warm-up exercise, and solution (10-15 minutes)
- Lecture via Whiteboard (10-20 minutes)
- Interactive questions or polls (10 minutes)
- Laboratory activity (20 minutes)
 - 1. Breakout rooms
 - 2. Offline
- Asynchronous content
 - 1. Homework clues
 - 2. Example problems
 - 3. Special topics

Unit 0 Outline

- 1. Topics from Chapter 1: 1.1, 1.2, 1.3
 - What is a statistic?
 - Probability examples
 - Data and sampling
- 2. Topics from Chapter 2: 2.1 2.4, 2.5 2.8
 - Data visualization
 - Location of the data in numerical space
- 3. Topics from Chapter 3: 3.1, 3.2, 3.3
 - Two rules of probability

Conclusion

Unit 0 Outline

- 1. Topics from Chapter 1: 1.1, 1.2, 1.3
 - What is a statistic?
 - Probability examples
 - Data and sampling
- 2. Topics from Chapter 2: 2.1 2.4, 2.5 2.8
 - Data visualization
 - Location of the data in numerical space
- 3. Topics from Chapter 3: 3.1, 3.2, 3.3
 - Two rules of probability