(possibly incomplete list of)

Topics Covered from Chapter 1 to Chapter 4

Chapter One: Statistical Thinking

Population
Sample
Representative Sample

their definitions and how they are related, why do we take a sample? why should it be representative? how do these relate to making inferences?

Quantitative vs. Qualitative data
Discrete vs. Continuous data

Chapter Two: Descriptive Statistics

Class, Class Frequency, and Relative Class Frequency

How to construct and read a relative frequency histogram.
The use of size to represent probability, in particular area in histograms.

Why a histogram is not appropriate for seeing if data is approximately normal (bell-curved).

Mean (of a sample)
Median

how to calculate these statistics, and when we would use each one

Range
Variance (of a sample)
Standard Deviation (of a sample)

you will be given the formula for the variance, but will need to know how to use it

Skewed right or skewed left, and how this relates to the mean and median

Empirical Rule (68, 95, 99.7) when it applies
Chebyshev's Theorem, you will be given the formula $1-1/k^2$ what does it mean?

What a Q-Q plot is for and how to use it.

Percentiles (what they mean, not how to calculate)
Interquartile Range
What a box plot says about the shape of a distribution and how it relates to the quartiles.
z-score = (observation-mean)/st.deviation

Using a box-plot or z-scores to find potential outliers
That you can only remove outliers if they are clearly an error. You can do the analysis both with and without the outliers though if they concern you.

Not: Section 2.9 - Graphing Bivariate Relationships

Chapter Three: Probability

Sample Point
Sample Space
Event

$P(A \cup B) = P(A) + P(B) - P(A \cap B)$ how to use these
$P(A \cap B) = P(A)P(B|A)$

Mutually Exclusive — their definitions, and how they affect the multiplicative
Independent — and additive rule
Complement
Conditional Probability

Factorials — what they are, how they are used
Binomial Coefficient — what its uses are and its formula

How division is used to cancel out the orderings we aren't concerned with

Chapter Four: Discrete Random Variables

Random Variable
Discrete Random Variable

Discrete Probability Distribution — if given the formula, how to calculate
Mean (of a discrete random variable) — these, and what they tell us
Expected Value (of a discrete random variable) — about the variable
Variance (of a discrete random variable)
Standard Deviation (of a discrete random variable)

Recognize when something follows a binomial distribution, know what the parameters mean, and how and when we would use them. Recognize the formulas for the mean and variance of a binomial distribution.

Not: Section 4.5 - The Poisson Random Variable or 4.6 - The Hypergeometric Random Variable