

Statistics Syllabus

Chaviva High School

2020/2021

Mrs Burris

Welcome to Statistics! This year, I hope you will find great joy and interest in a field of mathematics that is extremely practical and helpful in answering many of life's pressing questions. Together we will explore how to think about statistical questions, how to responsibly collect data, and how to responsibly analyze and interpret data.

Course Goals:

1. Recognize the importance of data collection, identify limitations in data collection methods, and determine how they affect the scope of inference.
2. Use statistical software to summarize data numerically and visually, and to perform data analysis.
3. Have a conceptual understanding of the unified nature of statistical inference.
4. Apply estimation and testing methods to analyze single variables or the relationship between two variables in order to understand natural phenomena and make data-based decisions.
5. Interpret results correctly, effectively, and in context without relying on statistical jargon.
6. Critique data-based claims and evaluate data-based decisions.
7. Complete research projects that focus on statistical inference and modeling.
8. OPTIONAL: If desired, by the end of this course, with some prep work outside of class, you should be prepared and able to take the AP Statistics Test for college credit.

Course Outline:

- Unit 1: Introduction to Data (Chapters 1-2)
- Unit 2: Probability (Chapter 3)
- Unit 3: Distributions of Random Variables (Chapter 4)
- Unit 4: Inference (Chapters 5-7)
- Unit 5: Linear Regression (Chapter 8)

Textbook and Other Resources:

- Our textbook for this class is available free online at [this link](#). You will also be given a print version.
- We will be using Google Classroom for updates, assignments, etc.
- We will be using myopenmath.com for extra class resources. There will be links to various materials, extra videos, assignments, and more. Reference the "How to Enroll in MyOpenMath" sheet available on Classroom to set up your account.
- A graphing calculator is strongly recommended, particularly if you plan to take the AP test.

Grading Structure:

Student Engagement (See Chaviva Rubric)	10%
Attendance (See Chaviva Policy)	10%
Assessments (Quizzes, Tests, Semester Exams)	40%
Assignments (Homework and Classwork)	20%
Labs and Projects	20%