

AP Statistics Summer Work Instructions

Welcome to AP Statistics! This may well be the most important course you take at BHS in developing your view of the world that surrounds you. Not a day passes that you do not hear someone discussing a survey or the results of a recent poll. Perhaps you hear about a controversial conclusion drawn from a recent scientific study or economic forecast. By the conclusion of this course, you will understand the language and nuances of the statistics used throughout daily life.

Our summer work will focus on sharpening what you have already learned about statistics in your previous math classes. We will review material and master how to explore, evaluate and present data. You will recognize many of the concepts: mean, median, boxplots, stemplots, etc.

The summer work for this course is out of our textbook, The Practice of Statistics, Edition 4 (TPS4e), by Starnes, Yates, and Moore. As electronic copies are not available, you will be provided a file of the reading (AP Summer Work 2019 Reading). The summer work package requires not only a significant amount of reading, but also an opportunity to summarize and organize the key points from your reading (on the attached AP Reading Blueprint worksheet). Application of the concepts you are reviewing will be reinforced through mini projects on data that you discover.

These projects include:

- 1) Find univariate, categorical data and create an appropriate graphical display. Describe the data that you selected, why this topic was interesting to you, and analyze your display in context of your problem.
- 2) Find univariate, quantitative data and create an appropriate graphical display. Describe the data that you selected, why this topic was interesting to you, and analyze your display in context of your problem. (HINT: SOCS).
- 3) Find univariate, quantitative data and calculate all single variable statistics (mean, median, Q_1 , Q_3 , standard deviation, minimum, maximum). Create a boxplot of the data, clearly identifying any outliers using the 1.5IQR rule. Analyze your boxplot in context of your problem. (HINT: SOCS).

Be sure to include the data you use for each of these mini-projects and to source it correctly.