

AP Statistics (New and Experienced)
Cherry Creek APSI
Denver, CO

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Course Description

This course will focus on effective strategies for helping students master the essential concepts and methods of AP Statistics. We'll examine resources for classroom instruction, assessment, technology, projects, and AP exam preparation. In addition, we will discuss issues related to planning and administering the course, such as student selection, pacing, and the AP Audit.

Course Objectives

1. Examine effective instructional strategies for teaching AP Statistics.
2. Deepen understanding of statistical concepts and methods in data analysis, study design, probability, and statistical inference.
3. Utilize technology to promote statistical thinking. Develop facility with using graphing calculators and computer software to analyze data and to perform simulations.
4. Explore a variety of ways to assess student learning.

Preparing for the Course

To get the most out of our time together, please:

1. Bring the graphing calculator you plan to use for the course and a laptop/tablet if possible.
2. Find out as much as you can about:
 - (a) The students who will be taking your course
 - (b) Materials that have already been selected for your course: textbook, calculators, software.**Please contact me via email (dstarnes@lawrenceville.org) for information on choosing a textbook, software, and other resources for teaching AP Statistics any time prior to the institute!*
3. If you have taught the course before, bring a handout or digital file to share with your colleagues. I will create a class Google Drive folder for our shared files.

Daily Agenda

Day 1

- ❖ Introductions, Welcome, Goals for the Week, Tour de stuff
- ❖ Overview of AP Statistics: an opening activity
- ❖ Exploring Data
- ❖ Course planning: The AP Audit

Day 2

- ❖ Collecting Data
- ❖ About the AP Exam
- ❖ Probability and Random Variables

Day 3

- ❖ Sampling Distributions
- ❖ Confidence Intervals
- ❖ Using technology effectively: calculators, applets, and software
- ❖ Significance Tests

Day 4

- ❖ Inference about relationships between two variables
- ❖ AP exam preparation
- ❖ Random raffle, evaluations, and farewell