

AP Statistics (New and Experienced)

Cherry Creek APSI
Denver, CO

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Course Description

This course will help teachers gain a deeper understanding of the AP Statistics Course Framework. We will focus on effective strategies for helping students master the essential concepts and skills of AP Statistics. We'll examine resources and supports for classroom instruction, assessment, and AP exam preparation—including those available on AP Classroom. In addition, we will discuss issues related to planning and organizing the course, such as student selection, sequencing and pacing, the AP Audit, technology, and projects.

Course Objectives

1. Deepen understanding of statistical concepts and methods in data analysis, study design, probability, and statistical inference, as well as the 4 course skills for AP Statistics.
2. Refine course planning to meet students' needs given available resources and supports.
3. Examine effective instructional strategies for AP Statistics.
4. Explore a variety of ways to assess student learning, including formative and summative assessments.
5. Expand your professional network as part of the AP Community.

Preparing for the Course

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

1. Bring a graphing calculator (TI-83/84 preferred) and a laptop/tablet.
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 (StarnesStats@gmail.com) 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
- ❖ Overview of AP Statistics: an opening activity
- ❖ Exploring Data
- ❖ Course planning: The CED

Day 2

- ❖ About the AP Exam
- ❖ Collecting Data
- ❖ Probability and Random Variables
- ❖ Course planning: Sequencing, pacing, and the AP Audit

Day 3

- ❖ Sampling Distributions
- ❖ Inference for Proportions
- ❖ Course planning: AP Classroom

Day 4

- ❖ Inference for Means
- ❖ Inference about Relationships between two variables
- ❖ Course planning: AP exam preparation and projects
- ❖ Random raffle, evaluations, and farewell