

AP Statistics (New)
Cherry Creek AP Summer Institute
Greenwood Village, CO
July 23 – 26, 2018

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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 will 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:

Participants will:

1. Examine effective instructional strategies for teaching AP Statistics to a diverse group of students.
2. Deepen their 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:

In order to get the most out of our time together, please do the following in preparation for the first class session:

1. Bring the graphing calculator you plan to use in your course and a laptop/tablet if possible.
2. Find out as much as you can about:
 - The students who will be taking your course
 - Materials that have already been selected for your course: textbook, calculators, software.
**Please contact me via email for information on choosing a textbook, software, and other resources for teaching AP Statistics any time prior to the institute!*
3. Go to the AP Central website: **apcentral.collegeboard.com** and download two documents:
 - The AP Statistics Course Description
 - The AP Statistics Teachers Guide
4. If you have taught the course before, bring a handout or digital file to share with your colleagues. I will create a class DropBox 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
- ❖ AP Audit
- ❖ Sampling and Experimentation
- ❖ Exploring Data: analyzing one categorical or quantitative variable

Day 2

- ❖ About the AP Exam
- ❖ Exploring Data: analyzing relationships between two categorical or quantitative variables
- ❖ Course planning and implementation
- ❖ Probability and random variables

Day 3

- ❖ Sampling distributions
- ❖ Confidence intervals
- ❖ Using technology effectively: calculators, applets, and software
- ❖ Significance tests and decision-making

Day 4

- ❖ Comparing two groups or populations
- ❖ AP exam preparation
- ❖ Inference about relationships between two categorical or two quantitative variables
- ❖ Random raffle, evaluations, and farewell