AP Statistics and Probabilty

Open to any grade level after the successful completion of Integrated Math 3 College Prep or Honors (10 Credits)

- *Meets high school graduation requirement for math credits*
- *Meets the UC/CSU subject area "C-Mathematics" requirement*

General Information

Description

In **AP Statistics and Probability** students will learn concepts such as

- Developing and using probability models.
- Analyzing and interpreting given data sets and graphs.
- Carrying out significance tests and interpreting results.

Expectations and Goals

Students should have

- A "B" or better in Integrated Math 3 College Prep
- Or a "C" or better in Integrated Math 3 Honors

Students entering AP Statistics and Probability should already have a good understanding of the following concepts:

- Setting up and solving word problems using equations.
- Identifying slope from graphs, equations, and word problems.
- Students should also have strong reading skills to be able to understand and interpret a variety of word problems and explanations of concepts.
- Using graphing calculators.

Students entering AP Statistics and Probability should also be able to solve problems such as

Equation Problem: Use the formula below to solve for the standard deviation of the data set 1, 2, 3, 4, 5. $$s^2 = \frac{(x_1 - \bar{x})^2 + (x_2 - \bar{x})^2 + \cdots (x_n - \bar{x})^2}{n-1}$$	Word Problem: With a standard deck of 52 cards, what is the probability of getting 2 red cards?
Graphing Problem: Given a graph, identify characteristics such as range, center of data, and maximum and minimum values. Also, TI-83's will be used to graph data sets.	

Students entering AP Statistics and Probability are expected to do the following:

- Have a strong desire to succeed this course.
- Be able to use and develop analysis skills.
- Attend and participate in class every day.
- Thoroughly complete homework and reading assignments.

Estimated Homework

Students will be expected to spend an average of 2 hours outside of class on homework for each class period. (This is a general guideline for planning and scheduling purposes. A student's individual ability level and competency may affect the actual preparation times needed.)

Examples of projects may include

- Friday Projects (analyze statistics related to current events)
- Developed Project (collect and analyze data)
- Semester Project (display data, carry out experiments, and interpret the data you collect)

This Class Is Best For...

This course is about the mathematics of statistics and probability. Students will be expected to analyze situations and sets of data. Tests of significance and inference testing are also developed. Students will participate in a variety of activities and will find that there is more reading than in previous math courses.

Course Materials

Required Materials

Text book: *The Practice of Statistics*, 5th edition, W. H. Freeman 2008, Yates, et al.