

AP Statistics and Probability

Readiness Profile & Course Expectations

Prerequisites: “B” or higher in Algebra II or a “C” or higher in Pre-Calculus.

Below are some guidelines for choosing the best course for an individual student. This is *not* a placement test and it should *not* be used as the only criteria for making placement decisions

Student Background

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

<p><u>Equation Problem:</u> Use the formula below to solve for the standard deviation of the data set 1, 2, 3, 4, 5.</p> $s^2 = \frac{(x_1 - \bar{x})^2 + (x_2 - \bar{x})^2 + \dots + (x_n - \bar{x})^2}{n - 1}$	<p><u>Word Problem:</u> With a standard deck of 52 cards, what is the probability of getting 2 red cards?</p>
<p><u>Graphing Problem:</u> 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.</p>	

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

- 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.

Course Content and Expectations

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.

Textbook: *Practice of Statistics*, W. H. Freeman 1999, Yates.

Students will be expected to spend an average of approximately 2 hours outside of class on homework for each class period. Approximately 1 to 2 sections from the text will be covered per class and one chapter every 2 weeks. Each semester will have approximately 8 tests and 5 quizzes. Grades will be calculated within the following guidelines:

- Tests and Quizzes: 70 – 80%
- Homework: 15 – 25%
- Projects: Approximately 20%

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)

Test Scores

Other indicators of potential success in **AP Statistics and Probability** include test scores near or above the following values:

- California Standards Test (CST) for Algebra II: Proficient
- District Benchmark Test for Algebra II: 70%

Other Comments

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.