

SYNOPSIS

TITLE: AP STATISTICS
COURSE NUMBER:
GRADE LEVEL: 10-12
LENGTH OF COURSE: 36 WEEKS

QUARTER 1

Students will be introduced to the study of statistics. They will cover graphing univariate and bivariate data in this quarter. They will also focus their studies on relationships between bivariate data and designing and/or implementing surveys and experiments.

- **Exploring Data**
- **Modeling Distributions of Data**
- **Describing Relationships**
- **Designing Studies**

QUARTER 2

Students will study the effects of chance and probabilities in this quarter. They will be introduced to the concept of a random variable. Students will also look at sampling distributions and the ideas of a statistical values and parameters of a population.

- **Probability**
- **Random Variables**
- **Sampling Distributions**

QUARTER 3

Students will study the importance of significance tests. They will also look at the importance of confidence intervals. They will start their statistical analysis by comparing two population proportions or means by doing significance tests or finding confidence intervals. Students will also look to chi-square testing for analyzing categorical data.

- **Significance Testing**
- **Comparing two populations or groups**
- **Inference for Categorical distributions of data (CHI-Square tests)**

QUARTER 4

During the last quarter students will cover the last major concept in statistics that focuses on inference for linear regression, and transformation of bivariate data. Students will also start a rigorous study plan in preparation for the AP exam in May.

- **Inference for linear regression**
- **Transforming data to achieve linearity**