

AP Statistics

This course utilizes newspapers, software, calculator programs and relevant internet resources as well as other selected resources to provide students with data and uses of statistics that are both real and relevant.

1. Exploratory Analysis (20%-30% of exam): This content area requires students to examine data distributions, detect important characteristics of those distributions such as shape, outliers, center and variability, and make conjectures about variable relationships based on carefully examining patterns in data. At the same time, students will learn the importance of analyzing relationships between variables and the difference between association and causation.
2. Sampling and Experimentation (10%-15% of exam): This content area requires students to develop careful plans to obtain data about a variable of interest. Here, data collection methods are examined and also the nature of the conclusions that may be drawn from the data is examined. Students must understand that both sampling and experimentation require reasonable data collection methods to ensure that results are as accurate as possible.
3. Probability (20%-30% of Exam): This content area requires students to learn the difference between a random phenomenon and a haphazard one. Also, probability distributions are used to describe data to aid in statistical inference. Students need to master the basic rules of probability and understand the idea that random phenomena display and order that only emerges in the long run and this order may be described using distributions.
4. Statistical Inference (30%-40% of Exam): This content area requires students to utilize statistical models to draw conclusions from data and see that the data may falsify or criticize the model itself. Students should be able to choose appropriate models to draw these conclusions while at the same time use probability language to show how confident they can statistically be about the selection.