Course Description: AP Statistics

AP Statistics is an algebra-based, college-level introduction to statistics. In this course, students explore the collection and analysis of data, sampling methods and experimental design, random variables and probability distributions, sampling distributions, confidence intervals, hypothesis testing, statistical inference for distributions and relationships, analysis of variance and regression analysis.

Students develop four core skills throughout the course, which include:

1. Selecting **statistical methods** for collecting and analyzing data;
2. **Data analysis** by description of patterns, trends, associations and relationships;
3. Using **probability and simulation** to explore random phenomena;
4. Developing **statistical arguments** and drawing conclusions through use of definitions, evidence from data, and statistical inference.

Unit list:

Unit 1: Exploring One-Variable Data
Unit 2: Exploring Two-Variable Data
Unit 3: Collecting Data
Unit 4: Probability, Random Variables, and Probability Distributions
Unit 5: Sampling Distributions
Unit 6: Inference for Categorical Data: Proportions
Unit 7: Inference for Quantitative Data: Means
Unit 8: Inference for Categorical Data: Chi-Square
Unit 9: Inference for Quantitative Data: Slopes

Textbook:

Daren Starnes & Josh Tabor, *The UPDATED Practice of Statistics, Sixth Edition*, Bed, Freeman & Worth, 2020.

Prerequisite:

Integrated Math 3 (or Algebra 2) with a grade of B or higher.

High Bluff Academy is accredited by the Western Association of Schools and Colleges (WASC). The above course is approved by the University of California system (A-G) and the National Collegiate Athletic Association (NCAA).