AP Statistics Syllabus

Course Description

AP Statistics is a two semester high school course that is equivalent to a one semester of introductory, non-calculus based college course in statistics. Students are introduced to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes:

1. **Exploring Data**: Describing patterns and departures from patterns
2. **Sampling and Experimentation**: Planning and conducting a study
3. **Anticipating Patterns**: Exploring random phenomena using probability and simulation
4. **Statistical Inference**: Estimating population parameters and testing

This is a yearlong course consisting of 12 units. Upon successful completion students will receive 1 credit towards high school graduation.

Purpose of the Course

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data and to prepare students to pass the AP Statistics Exam.

Course Overview

Semester 1

- Exploring Data
- Modeling Distributions of Data
- Describing Relationships
- Designing Studies
- Probability
- Random Variables

Semester 2

- Sampling Distributions
- Estimating with Confidence
- Testing a Claim
- Comparing Two Populations or Groups
- Inference for Distributions of Categorical Data
- More about Regression

Required Course Materials

Please access the list of course materials from the OC Online book ordering system and order your materials as soon as possible. Oftentimes, course materials are on back order and you may experience a delay in receiving them, causing students to fall behind in their online coursework. When ordering used or rented materials, be careful that online access codes are also current.

Methods of Instruction

There are 6 Modules per semester. Each Module consists of lessons that correspond with the text book and My Stat Lab assignments, review, AP exam practice, synchronous session and test. Module 13 provides a review for the AP Exam. Students will begin each lesson in Canvas, then proceed to additional reading and independent practice in the text book and finish the section by completing the assignment in My Stat Lab.

- **Textbook Reading:**

After completing the online reading in Canvas, students will read assigned pages in the text book.

- **Independent Practice Assignment**

Students will complete practice problems from the text book by writing each problem, neatly showing all work and checking the answer in the back of the text book. Students will keep all assignments in a notebook and make note of any difficult concepts.

- **TI-Nspire Activity**

Calculator activities for the TI-Nspire will help you learn the functions that correspond to each lesson. Instructions for TI 83/84 calculators can be found in the textbook.

- **My Stat Lab (MSL) Homework Assignment:**

Once reading and independent practice are complete, students will login to MSL and complete a homework assessment on the lesson. The assignments are computer adaptive, which means that if a question is answered incorrectly, the student may use a variety of resources to review the concept and request an additional problem. If the additional problem is answered correctly, the student will receive full credit. Students may redo all missed concepts in order to earn 100% on homework assignments.

- Each Module culminates with a Unit Review, AP Exam Practice, Synchronous Session and Test.

Methods of Evaluation

Students will demonstrate mastery through the following formative and summative assessments:

- 35% Assignments
- 10% Participation (Discussion Posts, Synchronous Sessions)
- 10% Quizzes
- 25% Final Exam
- 20% Unit Tests