

ARUNDEL HIGH SCHOOL COURSE SYLLABUS

AP Statistics 1st Semester 2016

Course Description

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 hypotheses*

Students who successfully complete the course and exam may receive credit, advance placement or both for a one- semester introductory college statistics course. College Board

Instructional Philosophy

Data in this course will be taken from real world situations, and is designed to give students the opportunity to actively discover statistical concepts, explore statistical principles, and apply statistical techniques. The use of technology throughout the course will aid students in their understanding and analysis of the data.

Course Content

Unit I: Exploring Data: Describing patterns and departures from patterns.

- Ch. 1 Exploring Data
- Ch. 2 Modeling Distributions of Data
- Ch. 3 Describing Relationships (including Section 12.2)

Unit II: Sampling and Experimentation: Planning and conducting a study.

- Ch. 4 Designing Studies

Unit III: Anticipating Patterns: Exploring random phenomena using probability and simulation.

- Ch. 5 Probability: What Are the Chances?
- Ch. 6 Random Variables
- Ch. 7 Sampling Distributions

Unit IV: Statistical Inference: Estimating population parameters and testing hypotheses

- Ch. 8 Estimating With Confidence
- Ch. 9 Testing a Claim
- Ch. 10 Comparing Two Populations or Groups
- Ch. 11 Inference for Distributions of Categorical Data
- Ch. 12 More about Regression (Section 12.1 only)

Course Goals

Students will be able to perform data analysis techniques and analyze data provided in various formats. Students will be able to comprehend statistical vocabulary terms. Students will be able to identify and select the most appropriate statistical test within various scenarios, along with applying it to analyze the data. Students will be able to interpret graphs and charts. Students will be able to organize his/her approach to the solutions of problems using appropriate problem solving strategies.

Assignments and Assessments

Student achievement will be evaluated on the basis of homework, class work, group activities, drills, quizzes, and tests. Major summative assessments will be given at the end of each unit. In addition, a quarterly assessment will be given at the end of each marking period.

Materials

Students are expected to bring to each class:

◆ TI-83 or TI-84 calculator* ◆ textbooks ◆ class notebook ◆ two pencils/eraser ◆ graph paper

Textbook: Students will be given his/her own textbooks and they must bring them to class all the time. If any handouts are necessary for study, copies will be provided to each student.

Grading

Grades earned at Arundel High School will be a reflection of student's mastery of the relevant national, state and local standards pertaining to the course of the study. All assignments & assessments are aligned to the standards.

A 100%-90%

B 89%-80%

C 79%-70%

D 69%-60%

E 59% or below.

Weighted Categories

Category	Percentage of Overall Grade
Assessments	65%
Classwork	15%
Homework	10%
Quarterly Assessment	10%
<i>Total</i>	<i>100%</i>

High school semester grades are determined by

1st marking period- 50%

2nd marking period- 50%

Teachers shall assign a minimum grade of 50% to assignments or assessments for which the student made a good faith effort, as determined by the teacher, to meet the basic requirements. If a student does no work on an assignment or assessment, the teacher shall assign a grade of zero.

Redos

Students may redo up to three assessments each quarter. Students are expected to participate in teacher assigned remediation. All redo items must be completed within ten days of receiving the original grade and may only be redone one time. Assessment or assignments due in the last week of the quarter are not eligible for redo. Students may not redo classwork, homework, the quarterly assessment or a large project.

To allow potential corrective action, teachers shall communicate with the parents of students who are in danger of failing or who are in danger of dropping the equivalent of 2 more letter grades (20% points or more) at any point during the marking period.

Late Work

Late work turned in after the due date shall be penalized by a maximum of 50%, per AACPS and AHS policy. Late work will not be accepted more than five school days from the original due date.

Additional Help

Students are highly encouraged to seek help during Pride Period or after school based on teacher availability. The National Honor Society provides tutors. Students should contact the NHS supervisor, to request a tutor. Families may also choose to hire a personal tutor through the TAAAC office, located in Annapolis that has a list of available tutors. The phone number of the TAAAC office is 410-224-333