AP Statistics 2017/2018

Mrs. LoPriore room E1

Website: <http://KLomath.weebly.com/>

**Course Description:**

AP Statistics is the high school equivalent of a one semester, introductory college statistics course. In this course, students develop strategies for collecting, organizing, analyzing, and drawing conclusions from data. Students design, administer, and tabulate results from surveys and experiments. Probability and simulations aid students in constructing models for chance behavior. Sampling distributions provide the logical structure for confidence intervals and hypothesis tests. Students use a TI-83/84 graphing calculator, Fathom, statistical software, and Web-based java applets to investigate statistical concepts. To develop effective statistical communication skills, students are required to prepare frequent written and oral analyses of real data.

**Course Goals:**

In AP Statistics, students are expected to learn:

*Skills*

* To produce convincing oral and written statistical arguments, using appropriate terminology, in a variety of applied settings.
* When and how to use technology to aid them in solving statistical problems

*Knowledge*

* Essential techniques for producing data (surveys, experiments, observational studies), analyzing data (graphical & numerical summaries), modeling data (probability, random variables, sampling distributions), and drawing conclusions from data (inference procedures – confidence intervals and significance tests)

*Habits of mind*

* To become critical consumers of published statistical results by heightening their awareness of ways in which statistics can be improperly used to mislead, confuse, or distort the truth.

 “In colleges and universities, the number of students who take a statistics course is almost as large as the number of students who take a calculus course. A July 2002 article in the *Chronicle of Higher Education* reports that the enrollment in statistics courses from 1990 to 2000 increased by 45 percent — one testament to the growth of statistics in those institutions. An introductory statistics course, similar to the AP Statistics course, is typically required for majors such as social sciences, health sciences and business. Every semester about 236,000 college and university students enroll in an introductory statistics course offered by a mathematics or statistics department. In addition, a large number of students enroll in an introductory statistics course offered by other departments. Science, engineering and mathematics majors usually take an upper-level calculus-based course in statistics, for which the AP Statistics course is effective preparation.”

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
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

**Grading Scale: Grade:**

90% -100% **A** 70% Assessments/Projects

80% - 89% **B** 20% Final Exam

70% - 79% **C** 10% Assignments

60% - 69% **D**

Below 60% **F**

**Assessment cannot be retaken.** All tests are scored on a curve. To be eligible for the curve, students must take the test on or before the test day. If not, the student forfeits the curve and is graded as a percent out of total possible points. More information on assessments and grading will be provided prior to the first test.

**Advanced Placement Information:**

Please visit apcentral.collegeboard.com to learn more about advanced placement exams.

 AP Statistics Exam– Thursday, May 17, 2018 (afternoon session)

**Primary Text**

Starnes, Daren S., Daniel S. Yates, David S. Moore, and Daniel S. Yates. *The Practice of Statistics*. 5e ed. New York: W.H. Freeman, 2012. Print.

**Technology**

Students have access to a classroom set of TI-84 graphing calculators (free emulator available online from WabbitStudio for Windows, MAC OS X and Android).

**Assignments**

 Assignments will generally be assigned every class period and will usually be due the following class meeting. Only fully complete assignments are accepted and will customarily be worth 10 points.

Fully complete late work will be graded for 7/10 and will be accepted only until the next chapter assessment. Students with unexcused absences will not be allowed to make up missed work.

**Participation**

 To be the most prepared for the AP exam, student participation is essential.

1. Be in class, on time, and ready.
2. Have all work completed on time and ready for discussion and questions.
3. Be a meaningful participant in discussions and activities.
4. Engage in meaningful FRAPPY (free-response AP practice YAY!) even when it is an academic risk!
5. Believe in your ability to grow and learn as a student of statistics.