AP Statistics 2014/2015

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, and Minitab 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**

**Advanced Placement Information:**

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

AP Statistics Exam– Wednesday, May 13, 2015 (afternoon session)

**Primary Text**

Brase, Charles Henry, and Brace, Corrinne Pellillo. *Understandable Statistics: Concepts and Methods,* Seventh edition. Boston, MA: Houghton Mifflin Co., 2003.

**Technology**

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

**Assignments**

Assignments will consist of individual and group assignments. Work will generally be assigned every class period and will usually be due the following class meeting. Assignments will customarily be worth 5 points. Longer assignments may be worth more. Late work will be graded for ½ credit. 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.
2. Be on time and ready for class with their text book and materials.
3. Have all their work completed on time and ready for grading.
4. Be a meaningful participant in discussions and activities.
5. FRAPPY (free-response AP practice YAY!)
6. Believe in your ability to grow and learn as a student of statistics.