

# AP Statistics Course Expectations

**Instructor:** Ms. Zebrack-Smith

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**Room:** 108

**Office Hours:** Wed. 6:30 – 7:30am; M, T, Th, F: 2:20 – 3:20pm; BY APPT.

**Text:** *The Practice of Statistics*, 4<sup>th</sup> edition, by Starnes, Yates, and Moore, W.H. Freeman and Company, 2012

**Required materials:** Graphing calculator (TI-83/84/89 or TI-Nspire with an 84 faceplate); Notebook/journal for note taking, writing utensils, netbook.

**Course description:** Statistics is the art and science of collecting, organizing, analyzing, and drawing conclusions from data. Done properly, statistics can help us get clear answers to complex questions from the world around us. In AP Statistics, we will organize our study of statistics around four major themes: exploring data, planning and conducting a study, anticipating patterns (probability models), and statistical inference. We will use statistical software, interactive Web tools, and graphing calculator simulations to investigate important probability and statistics concepts. This course will prepare you for the AP exam in May. A full topic outline can be found at <http://www.collegboard.com/student/testing/ap/statistics/topic.html?stats>

**What is Statistics about?** Statistics is the discipline and science of *making sense out of variation*. Anything that can be measured will vary from case to case. A good statistician is searching for answers to the following questions:

- What exactly do we want to measure?
- What is the best way to measure it? How do we get good information?
- How do our measurements vary and by how much?
- What can we conclude based on what we know?

**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.

## **Style:**

Students will be expected to independently develop a grasp of the concepts presented in the explorations. While the activities of this course tend to suggest that the ideas are simple, just the opposite is true. It is easy to be lulled into feeling comfortable about material because you have completed an assignment. In fact, only deep conceptual thinking will pull together the essential ideas. The calculations involved in this course are very basic. Technology will be used to eliminate most of the drudgery of computation. However, numbers without context are meaningless. Homework, tests, and projects will depend on well-written, concise prose written with a sense of the audience. Students should make sure that they request help with whenever they feel they need it.

**Homework:** Homework is assigned daily and is to be kept separate from your notes. Before beginning your homework, READ the textbook and your notes thoroughly. You should work all of the examples shown in class and in the book until you understand them. Homework will not be collected most of the time. I will let you know in advance if I plan to collect it. However, this is a difficult class. I HIGHLY suggest you attempt at least some of the problems if not all on a daily basis.

**Projects, Special Problems, and Free Response AP Problems:** This course lends itself to some interesting and fun, real world projects. Students will collect and interpret data using the tools/skills learned in this course. Projects must be typed, professional and include graphs/tables/charts as applicable. We will work on FRAPPY's (Free Response AP Practice Yeah!) to help students learn how to evaluate and grade AP responses, AP style.

**Assessments:**

- **Quizzes:** Given often, at least weekly.
- **Tests:** There will be at least one major test for each chapter/unit. They will be in AP Exam-type format with multiple choice and free response type items. We will review before every test. You will also be allowed to retake one test of your choice at the end of quarter. However, in order to retake a test, you will need to do all of the homework from that chapter and turn it in the day of the retake.

If you are absent the day of a test or quiz, be prepared to take it when you return during class. Failure to take a quiz or test will result in a zero. If you are absent the day before a test, you still must take the test on the assigned date. An unexcused absence on a day of a test or a quiz will result in a zero.

**POLICIES:**

- Rules:**
- 1. Attend Class** Be seated and ready to go by the scheduled class start time. If you are absent you will miss something, and you are responsible for all notes and assignments. Therefore, make sure you are aware of assignments and get notes and activities from a reliable classmate who is in the same period class as you (occasionally each period may be different). Handouts and assignments will be posted on Haiku. to earn full credit for homework.
  - 2. Be Respectful of Others** Raise your hand for permission to speak. Disruptive side-talking, whispering, and rudeness are inappropriate in class. Please be courteous to your classmates and teacher. Keep hands, feet, objects, and negative comments to yourself.
  - 3. Personal listening devices\* and cell phones must be turned off and placed out of sight.** I will confiscate phones and other electronics until the end of the day. You may take them out after a lesson.
  - 5. Demonstrate academic honesty on every task you do.** Violations of academic honesty include but are not limited to cheating, plagiarism, copying answers and passing it as your own work, *storing notes on your calculator*, and receiving or giving help on an assessment. Discipline for any student found engaging in "dishonest behavior" will range from a "0" on the work in question to loss of credit for the semester. **DO NOT CHEAT OR PLAGERIZE!**

**Grading Scale:**

90 -	A	77 - 79.9	C+
87 - 89.9	B+	73 - 76.9	C
83 - 86.9	B	70 - 72.9	C-
80 - 82.9	B-	- 69.9	NC

Grades are updated often. Please check. If you find an error, you have two weeks per the student handbook to see me to fix it. Otherwise grades are locked.

