

A.P. Statistics Course Syllabus

2011-2012

Instructor(s) Information:

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Planning hour: 4th
Classroom Location: Room #222
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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 phenomena. 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, simulations), 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.

Textbook

The Practice of Statistics (3rd edition), by Yates, Moore, and Starnes, W. H. Freeman & Co., 2008.
(referred to below as TPS) ISBN: 0-7167-7309-0

The instructor will have a classroom set of ten textbooks; however, these books are not checked out to students for overnight use. ***You are NOT required to purchase your own textbook this year.*** If you would like to purchase one, however, you can find them new or used at amazon.com. Please keep in mind that it is likely you will be able to re-sale your book to a student taking the course the following year.

Course Grades

Your final semester grade is a weighted average of your semester grade (80%) and your semester final exam (20%). The final exam for 2nd semester of the course is the A.P. Statistics Mock Exam, which **everyone** will take, combined with an end of the year project (rubric to be given at a later date).

Course Grades

Your semester grade is a weighted average of:
Tests, quizzes, and projects = 80%
Homework, HW Quizzes = 20%

Grading Scale

90.00 - 100%	= <u>A</u>
80.00 - 89.99%	= <u>B</u>
70.00 - 79.99%	= <u>C</u>
60.00 - 69.99%	= <u>D</u>
Less than 60%	= <u>F</u>

Homework and Homework Quizzes

Homework is assigned regularly. Homework is important because it correlates to and prepares you for the tests. If you treat each assignment as a test and do your best to get each problem correct the first time or go back and try to figure out each incorrect solution immediately, you should do well on the tests. Homework is to be completed in pencil. Data displays should be displayed neatly and/or electronically. Include your name, period, and assignment details at the top right of first page. Homework is to be completed before the next class. We will go over questions during the next class. Homework will be collected weekly. The week's worth of assignments will usually be collected on Tuesday of the following week. Please check the calendar on www.phsmath.org to see when the week's assignments will be collected.

Each week, the homework will be worth 10 points, broken down as follows:

<i>Neatness</i>	<i>: 4 points</i>	(Work is done neatly and easy to follow. Graphs are neat.)
<i>Completeness</i>	<i>: 4 points</i>	(All necessary work is shown. All parts of the problem addressed.)
<i>Correctness</i>	<i>: 2</i>	(Randomly selected problems will be checked.)

Total = ***10 points***

***** Neatness can not exceed Completeness***

To claim the full points on an assignment, you must have attempted every problem, showing appropriate work (in the teacher's opinion) that supports your answer. When necessary, graphs should be done neatly and full sentences should be used. Learning proper techniques for solving problems is an important part of the course. After answers are checked, it is up to you, and in your best interest, to correct any problems you have worked incorrectly. If you have not fully attempted every problem as described, you will receive a lower score on the assignment. A few problems not attempted would result in a deduction of your score. Unexcused absences result in no credit for assignments due or tests scheduled for that day.

Late homework is not accepted, unless in the event of an excused absence! Then, it is due the day the student returns or through arrangements made with the teacher.

Each student should concentrate on doing assigned homework and studying for tests on a continuing basis throughout the course. There is no extra credit work available.

Tests, Quizzes, and Projects

Test and quiz schedules are posted in the classroom and/or on www.phsmath.org and are given frequently. Quizzes are usually out of 15 to 20 points. Occasionally, there may also be “Partner Quizzes”.

Each test is cumulative and will consist of two parts: the multiple choice section (12 questions) and the free response section (3 questions). Each section will be weighted equally, as it is on the AP Statistics exam. On the multiple choice section of the test, you will be given +1 point for a correct response. You do not get penalized for guessing. Also, each free response question is graded on a 4 point scale. Thus, each section is essentially out of 12 points.

The raw scores for the test scores are then normed. Any outliers (upper or lower) will be removed from the data first. The average for all AP Statistics sections on the test will generally be the cut-off for a grade of 75%. The standard deviation will determine the cut-off points for all other grade levels in 10% increments (i.e. average + 1 stand. dev. = 85%, average – 1 standard deviation = 65%). ***These cut-off values can be adjusted if the teacher feels the class is not working to their potential prior to the exam.*** After this adjustment, the test will be taken out of 100 points. If the student’s raw score percent is better than their curved percent, they will be given the higher grade.

For each unit test, students will have the opportunity to complete a Case Closed exercises for the material being presented. These exercises are provided in each chapter of the text book. They are not mandatory, but they are highly recommended. On the day of a test, you can turn in the Case Closed(s) for 5% bonus towards your test grade (also using the “Neatness, Completeness, Correctness” criteria). There is no late work available for this opportunity. They must be turned in the day of the test. It is highly recommended that you keep all Case Closeds, note guides, and quizzes as an ongoing list of terms and examples to study for the AP Statistics Exam.

Make-up tests and quizzes will be administered the first day back after an excused absence unless exceptional circumstances exist. ***Be prepared to take any missed test on the first day you return!***

AFTER THE AP EXAM: Students complete a final project, alone or in teams, on a topic of their choosing. Both a written analysis and a brief oral presentation are required for this project.

Calculators

A graphing calculator is highly recommended for this course. For a current approved list of calculators that are appropriate for this and for subsequent AP Mathematics courses, see the www.collegeboard.org web site. Popular models include the TI-83, TI-84, TI-89, and TI-nspire (CAS). The most recommended calculators for the course are the TI-83/84.

Attendance and Tardies

Regular attendance is important. If you miss a class due to an excused absence, it is your responsibility to find out what was missed and to make up any work. Tardies will be handled in accordance with the school’s tardy policy. You are tardy to this class if you are not in the room and quietly headed to your seat when the bell rings. If you are tardy, it not only reduces the time you have to learn in class, it disturbs others who were on time and ready to start at the bell. Be on time, every day. School rules on Tardy Policies and consequences will be followed. Ask to leave the room for emergencies only. ***Students will not be allowed out of class on a pass during the first ten and last ten minutes of class.***

Cheating Policy

If there is evidence of cheating, a zero will be recorded for all work involved and disciplinary action, including parental contact, will be initiated.

Class Rules

Class rules are designed to make the classroom a place where learning can take place efficiently and effectively. The rules are:

- 1. No cell phones or electronic devices! All devices used without permission will be taken until the end of the school day.***
2. Be in the room and headed quietly to your seat when the bell rings.
3. Stay in your seat unless permission to move is given.
4. Come to class prepared with proper math supplies, including textbook and calculator.
5. Be prepared to work from bell to bell. The ending bell is my signal to dismiss the class.
6. Use the restroom between classes whenever possible.
7. Speak only when you have permission.
8. Respect your teacher, your classmates, and yourself.
9. The school tardy and dress code will be enforced!
10. NO FOOD OR DRINK (Water is OK) IN THE CLASSROOM! **THIS ISN'T LUNCH TIME!**

We will treat each other and ourselves with dignity and respect. We must recognize and respect the right of the teacher to teach and the right of the students who want to learn, to be able to learn. Conduct that interferes with the educational process is unacceptable and will result in immediate consequences. Be aware of and follow all school rules and classroom rules. Consequences: 1st misconduct = teacher/student conference, 2nd misconduct = referral and/or call to parents, 3rd and subsequent misconducts = detention.

Helpful Websites

www.phsmath.org – Use this website to check answers to homework, assignment and test/quiz schedules, and course policies.

www.apcentral.collegeboard.com – Use this website to clarify any questions you have about the AP Statistics exam. There are even released exam questions from the free response portions of the test.

<http://bcs.whfreeman.com/tps3e/default.asp?s=&n=&i=&v=&o=&ns=0&uid=0&rau=0> – This website is used in conjunction with the text book. There is great practice for multiple choice questions, as well as computer applets that can assist in doing some of the homework problems.

–I have read and understand the class policies.

–I am aware that the Parent Portal (IC) is available for me to view my student's attendance and academic progress.

–My student has shown me the resources that are available for this class on www.phsmath.org.

Student name (please print) _____ Student Signature _____

Parent name (please print) _____ Parent Signature _____

Parent Contact Number _____ Parent E-mail _____