

AP STATISTICS
SUMMER FUNCS
2009



Types of Data

Quantitative (or measurement) Data

These are data that take on numerical values that actually represent a measurement such as size, weight, how many, how long, score on a test, etc. For these data, it makes sense to find things like "average" or "range" (largest value - smallest value). For instance, it doesn't make sense to find the mean shirt color because shirt color is not an example of a quantitative variable. Some quantitative variables take on **discrete** values, such as shoe size (6, 6 $\frac{1}{2}$, 7, ...) or the number of soup cans collected by a school. Other quantitative variables take on **continuous** values, such as your height (60 inches, 72.99999923 inches, 64.039 inches, etc.) or how much water it takes to fill up your bathtub (73.296 gallons or 185.4 gallons or 99 gallons, etc.)

Categorical (or qualitative) Data

These are data that take on values that describe some characteristic of something, such as the color of shirts. These values are "categories" of a population, such as M or F for gender of people, Don't Drive or Drive for the method of transportation used by students to get to school. These are examples of **binary** variables. These variables only have two possible values. Some categorical variables have more than two values, such as hair color, brand of jeans, and so on.

Two types of variables:



Exercises: Answer the following questions and then decide if the data is quantitative or categorical. (Q or C)

	ANSWER	TYPE
1. In what grade did you take Algebra 1?	_____	_____
2. How many CDs do you own?	_____	_____
3. How old was your father when you were born?	_____	_____
4. How old was your mother when you were born?	_____	_____
5. Choose a random integer from 1 to 20.	_____	_____
6. How many siblings do you have? (all, whether you live with them or not)	_____	_____
7. How many cousins do you have?	_____	_____
8. How tall are you (in inches)?	_____	_____
9. How many AP classes will you be taking THIS year?	_____	_____
10. What gender are you?	_____	_____
11. Where did eat your last meal? (1 = home, 2 = restaurant, 3 = other)	_____	_____
12. How long have you lived in this area?	_____	_____
13. How far away from school do you live?	_____	_____

Numerical Descriptions of Quantitative Data

Measures of Center

Mean: The sum of all the data values divided by the number (n) of data values.

Example

$$\text{Data: } 4, 36, 10, 22, 9 \quad \text{Mean} = \bar{x} = \sum \frac{x_i}{n} = \frac{4+36+10+22+9}{5} = \frac{81}{5} = 16.2$$

Median: The middle element of an ordered set of data.

Examples

Data: 4, 36, 10, 22, 9 = 4 9 10 22 36 → Median = 10

Data: 4, 36, 10, 22, 9, 43 = 4 9 10 | 22 36 43 → Median = $\frac{10+22}{2} = 16$

Measures of Spread:

Range: Maximum value - Minimum value

Example

Data: 4, 36, 10, 22, 9 = 4 9 10 22 36

$$\text{Range} = \text{Max.} - \text{Min.} = 36 - 4 = 32$$

Interquartile Range (IQR): The difference between the 75th percentile (Q_3) and the 25th percentile (Q_1). This is $Q_3 - Q_1$. Q_1 is the median of the lower half of the data and Q_3 is the median of the upper half. In neither case is the median of the data included in these calculations.

The IQR contains 50% of the data. Each quartile contains 25% of the data.

To find the median, sort the data in the lists: **STAT** → **2** → **L₁** The median is exactly in the middle between the 13th and the 14th value.

Mean _____ Median _____

Are they the same? _____

If not, which is larger? _____

2. Find the mean and the median for the mom data.

Mean _____ Median _____

Are they the same? _____

If not, which is larger? _____

3. Now compare the two means you calculated. Which is larger? _____ Is this result what you expected? _____ Why/why not?

4. Calculate the range for each set of data. Dad _____ Mom _____

5. Are these ranges about the same? _____ If no, what are some reasons that might cause this difference?

6. Find Q_1 and Q_3 for the Dad data. Q_1 _____ Q_3 _____

7. Find Q_1 and Q_3 for the Mom data. Q_1 _____ Q_3 _____

8. You have now calculated the "Five-Number Summary." This can also be used as a way to determine the spread of a set of data. The five-number summary consists of:

Minimum Q₁ Median Q₃ Maximum

Write the five number summary for the Dad data: _____

Write the five number summary for the Mom data: _____

9. Now calculate the IQR for each of the two sets of data.

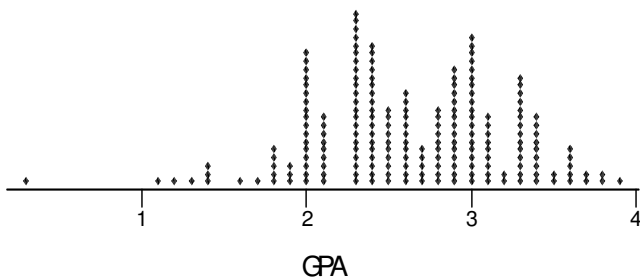
Dad _____

Mom _____

Graphical Displays of Univariate (one variable) Data

- Quantitative Data:**
- Dotplot
 - Boxplot (Box and Whiskers)
 - Stemplot (Stem and Leaf)
 - Histogram

Dotplot of Student GPAs



To make a Dotplot:

1. Draw and label a number line so that all the values in your dataset will fit.
2. Graph each of the data values with a dot.
Be sure to line the dots up vertically as well as horizontally so that you can really see the shape of the graph.

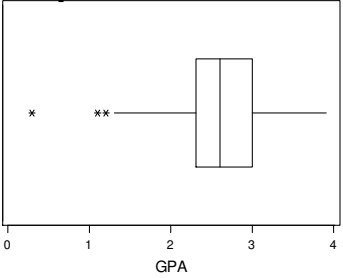
Stemplot of Student GPAs

1		23
1		444
1		67
1		88888999
2		00000000000000000011111111
2		333333333333333333333333
2		444444444444444444444455555555
2		6666666666666677777
2		888888888899999999999999
3		0000000000000000000011111111
3		223333333333333333
3		4444444445
3		6666677
3		889

To make a Stemplot:

1. Put the data in ascending order.
2. Use only the last digit of the number as a leaf (see the numbers to the right of the line - each digit is the last digit of a larger number).
3. Use one, two, or more digits as the stem. (Sometimes, you can truncate data when there are too many digits in each data value - i.e. the number 20,578 would become 20 | 5, where the "20" is in thousands. Note that this is **different** from rounding.)
4. Place the "stem" digit(s) to the left of the line and the leaf digit to the right of the line. Do this for each data value. You should then arrange the "leaves" in ascending order.
5. Sometimes, there are many numbers with the same "stem." In this situation it might be useful to break the numbers with the same stem into either two distinct groups (each on a separate line; say, "leaves" from 0 - 4 on the first line and 5 - 9 on the second.) or into five distinct groups as is shown in the graph to the right. Here, the first line for each stem contains all the 0 - 1 leaves, the next line contains the 2 - 3 leaves and so on. This technique is called "splitting the stems." It is useful in some cases in order to show the shape of the data more clearly.

Boxplot of Student GPAs

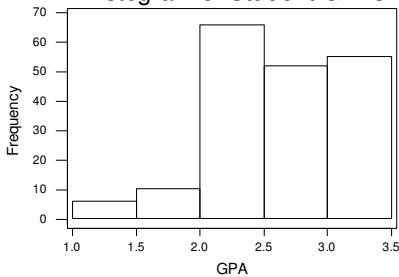


To make a Boxplot:

1. **Draw and label a number line** that includes the minimum and the maximum values for the set of data.
2. Calculate the five-number summary and make a dot for each of these summary numbers above the number line.
3. Draw a line between the 1st and 2nd dot, showing the “lower quartile”; and then draw a line from the 4th to the 5th dot to show the “upper quartile.” These are commonly called the “whiskers.”
4. Draw a rectangular box from the 2nd to the 4th dot and draw a line through the box on the middle dot – the median.

NOTE: In AP Statistics, a “modified boxplot” is used. This shows any “outliers.” An outlier is a data point that does not fit the pattern of the rest of the data. When your calculator or computer software graphs a modified boxplot, an algorithm is used to determine what it takes to “not fit the pattern of the rest of the data.” This algorithm is: $1.5 (IQR)$ away from the “box” part of the graph. (above and below the box). These outliers are shown with dots or stars, or any other small symbol.

Histogram of Student GPAs



To make a histogram:

1. Put the data into ascending order.
2. Decide upon evenly spaced intervals into which to divide the set of data (such as 0, 10, 20, 30, etc.) and then count the number of values that fall within each interval. This number is called the “frequency.” If you divide each of these frequencies by the size of the data set, n , making percents, then you have what are called “relative frequencies.”
3. Draw and **label** a 1st quadrant graph using scales appropriate for the data. Be sure to include a title for the x- and for the y-axes.
4. Graph the frequencies that you calculated in step 2.

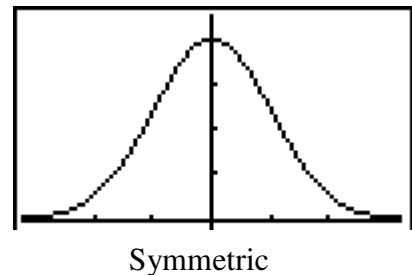
Categorical Data: Bar Graph
Circle Graph

I'm assuming that you already know how to make these two types of graphs.

Assessing the *Shape* of a Graph

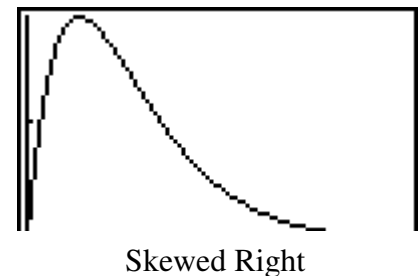
There are two basic shapes that we will examine: *Symmetric* and *Skewed*.

Symmetric: One can tell if a graph is symmetric if a vertical line in the "center" divides the graph into two fairly congruent shapes. (A graph does *not* have to be "bell-shaped" to be considered symmetric.)



Mean ~ Median in a symmetric distribution

Skewed: One can tell that a graph is skewed if the graph has a big clump of data on either the left (skewed right) or on the right (skewed left) with a tendency to get flatter and flatter as the values of the data increase (skewed right) or decrease (skewed left). A common misconception is that the "skewness" occurs at the big clump.



Relationship between Mean and Median in a skewed distribution:

Skewed *Left*, the mean is *Less*.

Skewed *Right*, the mean is *More*.

Gathering Information from a Graphical Display

The first thing that should be done after gathering data is to examine it graphically and numerically to find out as much information about the various features of the data as possible. These will be important when choosing what kind of procedures will be appropriate to use to find out an answer to a question that is being investigated.

The features that are the most important are Shape, Center, Spread, Clusters and Otliers: **SCSCO**. Most of these can only be seen in a graph. However, sometimes the shape is indistinct - difficult to discern. So, in this instance (usually because of a very small set of data), it's appropriate to label the shape "indistinct."

Exercises

1. Construct a boxplot for each the following sets of data taken from consumer ratings of different brands of peanut butter in the September, 1990 issue of *Consumer Reports*. **Use the same number line for both graphs.** (You could do it this way: Draw a number line. Above this line construct the "Crunchy" boxplot. Then, above the "Crunchy" boxplot, construct the "creamy" boxplot.)

Crunchy: 62 53 75 42 47 40 34 62 52 50
 34 42 36 75 80 47 56 62

Creamy: 56 44 62 36 39 50 53 45 65 40
 56 68 41 30 40 50 56 30 22

- a. Find the range for : Creamy _____ Crunchy _____
- b. Find the median for: Creamy _____ Crunchy _____
- c. Looking at your boxplots and comparing the medians what type of peanut butter do consumers tend to prefer?
2. The following data is taken from the *Statistical Abstract of the United States* (112th Edition). These are the ages of drivers arrested for DUI from a

random sample of size 50. Make a stemplot to show the distribution of this age data.

45	16	41	26	22	33	30	22	36	34
63	24	26	18	27	24	31	38	26	55
31	47	27	43	35	22	64	40	58	20
49	37	53	25	29	32	23	49	39	40
24	56	30	51	21	45	27	34	47	35

- What is the shape of this graph? _____
 - Using your stemplot, find the median of this data. _____
 - Which data display is better - a boxplot or a stemplot? _____
Why? (More detail?)
3. For the following graphs, find the shape, center (**just do the median**), and spread (find only the **range**). If there any other notable features evident in the graph (clusters, gaps, or outliers), then say where they are. Otherwise do not comment on clusters, gaps or outliers.

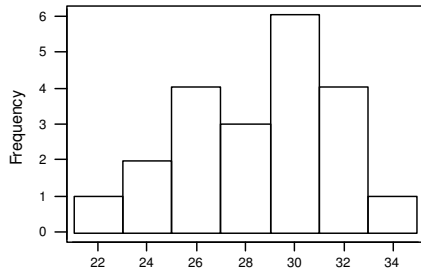
(Note:

To find the center of these graphs, use the frequencies found on the y-axis.

Count how many are in each bar. Add these up and divide by two. This tells you where the median is located. Which bar is this value in? That's the median. For graph A, $n = 21$, so the middle value is 10.5. Starting with the first bar count $1 + 2 + 4 + 3 + 6 \dots$ So the median is in the bar that contains the 10.5 value (bigger than 10 anyway). That's 30. So, the median is 30. To find a **VERY** rough estimate of the mean, take the frequency for each bar and multiply it by the value along the x-axis for

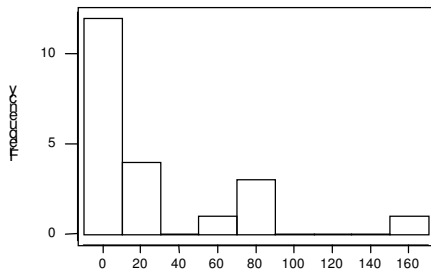
that bar. Add these up for all the bars and then divide by 21. You get the mean = 28.571.)

A



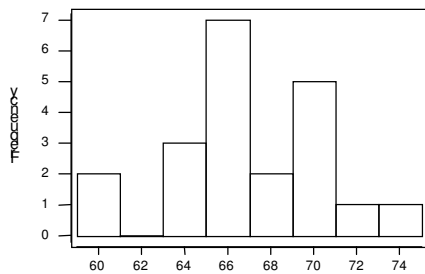
Shape _____
 Center _____
 Spread _____

B



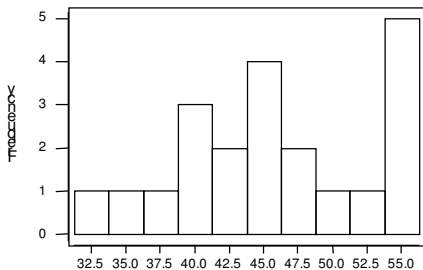
Shape _____
 Center _____
 Spread _____
 Clusters, Gaps? _____ Where?
 Outliers? _____ Where?

C



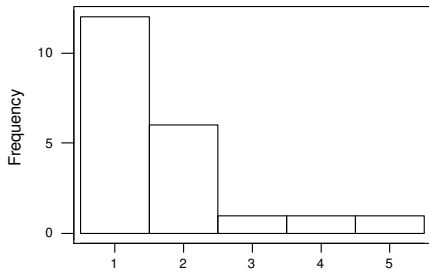
Shape _____
 Center _____
 Spread _____
 Clusters, Gaps? _____ Where?

D



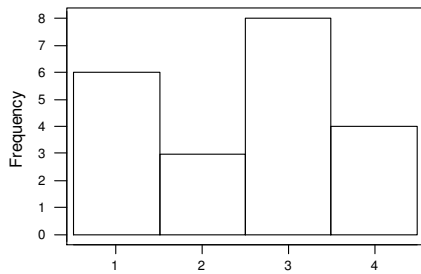
Shape _____
 Center _____
 Spread _____

E



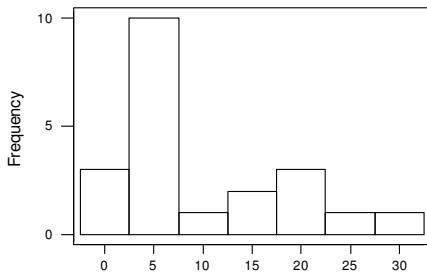
Shape _____
Center _____
Spread _____
Clusters? ____ Where?

F



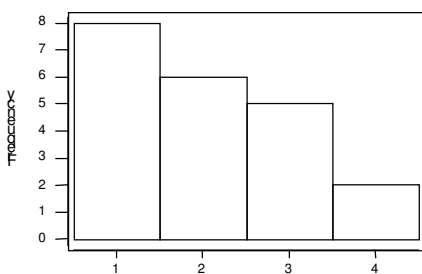
Shape _____
Center _____
Spread _____

G



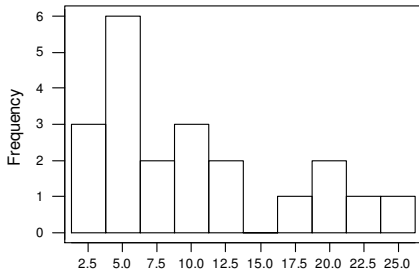
Shape _____
Center _____
Spread _____

H



Shape _____
Center _____
Spread _____

I



Shape _____
Center _____
Spread _____
Clusters, Gaps? _____ Where?

4. Use the following list of variables to identify which of the graphs in Question 4 *could* be a graphical display of the answers for a typical class of students. (Look at things like scale, range, min, max. Write the letter of the correct graph in the blank provided. There are more variables than there are graphs, so don't worry if you have extras.

Variables

Grade when a student takes Algebra 1 _____

of pairs of shoes you own _____

Age of your father when you were born _____

Age of your mother when you were born _____

Age of your stat teacher this next year _____ (guess, even if you don't know me!!)

of siblings you have _____

of cousins you have _____

Your height (in inches) _____

of AP classes you will be taking this next year _____

How long you have lived in this area _____

How far away from school you live (in miles) _____

Amount of change in your pocket on the first day of school _____

6. **Reading Assignment:** Read the following letters written to you by some of the AP Stat students in the year 2008 - 09.
7. **Writing assignment:** Write your own letter about what you are going to do to ensure success this next year in this and all of your AP classes.

On the first Monday after school starts, you will be given a "summer packet" test. Not only will you be tested on all material in this packet, but the packet must also be turned in and complete (50 points). The test will count for an additional 50 points. This is material that is covered in the first chapter of the textbook and is very important.

Questions???? Email me here: tcfrench@cox.net or go to the following website for a link to my email and for any extra instructions that I might want to give you over the summer. I will also include a supply list when school is about to start:

tcfrench@fcps.edu

1. Dear future AP statistics student,

Coming into your senior year, you most likely can't wait for the year to end before it's even begun. You are going to want to leave Lake Braddock behind as soon as possible to move onto the more independent life style of college. While by all accounts, college is great, you only get to have one senior year. My first advice is to do as many things here in high school as possible, since it's your last year of enjoying things with people you've known from elementary school. Go to as many football games, basketball, football, and other sporting event. If you never went to a homecoming, go. Do as much as you can, so that when you look back you can say there wasn't a part of high school that you missed out on.

With need of enjoyment for your senior year, one must find a way to balance the class work as well. If your taking AP statistics, your most likely planning on taking at least one other AP class, meaning you are bound to have a decent work load. Be sure to keep up with your work. AP statistics isn't too demanding. All that Ms. French asks is that you put a good honest effort into your homework, and try in class. If you do that, it's up to you to learn the concepts to do well on the tests and quizzes, but if you are in need of help Ms. French is very willing to help you if you stop by before, during, or after school. Don't be afraid to ask questions, because if you don't grasp a concept the first time around, it makes learning future concepts even harder.

You might be thinking that AP statistics, is going to be an easy A AP class, but that's not a safe assumption to make. If you hope to get an A you have to be willing to put forth a good solid effort, meaning that you're willing to really do the homework, and really dedicated to studying hard for each test and quiz. If you think you're going to be able to get an A by doing minimal work your

wrong. A's may be difficult to get but valiant efforts and attempts at the work can easily get you a B or B+.

Now being in your senior year, you have most likely had a variety of teachers. Ms. French is one that you will truly enjoy. She is light hearted and overall a great teacher, that you'll be lucky to have. She's willing to give you help when ever you need it, and she sets you up beautifully for the AP exam. She gives, and teaches you everything that you need to know, so that once you take the AP exam, you're confident that you'll get at least a 3, with a high chance of getting a 4 or 5. One perfect example of the stuff Ms. French gives you is a sheet of all the conditions to the statistical tests that you'll learn over the course of the year. She will also give you another sheet with the two paragraphs that you'll need to know to for the AP exam. With these two sheets, you can learn 70% of the material. And if you choose to learn while in class, instead of learning from the sheets that you get, you learn through eating skittles and M&M's. What AP class learns through eating skittles and M&M's? There is some what of a catch however to all the goodness that is Ms. French, she is very strict about getting your work turned in on time. Excuses will not fly, or hold up, for Ms. French isn't about having pity parties for anyone.

All, in all, AP statistics is a very worthy AP math class to take in your final year of high school. You will have a great time, and when you look back on your senior year, you will always cherish the time you spent in Ms. French's AP statistics class. It is truly that amazing.

Best of Luck,

Mark Grant

Mark Grant

2. Dear Future AP Statistics Students,

Welcome to AP Stat with Mrs. French. You can pretty much forget all of the Precalc and Algebra 2 you learned before this year, because the only math you are going to really going to need this year is logical reasoning and common sense. You can do everything else on your calculator. Knowing that, you would think that this class would be easy; and you would be wrong. While AP Stat might not be a traditional math class, it provides complex problems that make you think critically rather than just crunching numbers. It's a challenging course, but one that is definitely doable if you put in some effort.

Let me start off by saying that I'm going to give you some tips for what to do and not do, based on everything I did wrong this year. I probably made every mistake possible in approaching this class, but I still managed to pass and even managed to be (somewhat) successful in this class by the end of the year.

First, the don'ts. Don't be late to class, because you will have to sign in and your tardies will add up quickly, especially if you have this class in the morning. Don't lose your bathroom pass, because you can trade it in for extra credit points at the end of the quarter. Don't be mean to the people around you, especially first quarter, because you do a lot of activities with your table. Don't sleep in class, because Mrs. French really doesn't like that. Especially don't cheat, because even if you don't get caught, you need to know the material because you're going to get tested on it again. Don't talk when Mrs. French gives you time to do homework, because you'll be mad at yourself when you have to do it later. Don't make fun of someone when they say something wrong, because Mrs. French gets really upset and asks you to apologize in front of the class. Don't wait to the last night to do all your homework for the chapter, because every time you think you're going to stick it out and get it all done, and every time you're going to give up halfway through. Don't be absent the day you pick partners for the partner test, because you're going to have to take it by yourself. In fact, don't miss a lot of class, even on quiz days, because we take a lot of quizzes and when you

miss one you get behind and they build on each other. And don't eat skittles or M&M's off the ground because that's pretty gross.

Now for some things to do. Do your homework when it's assigned because it will help you greatly to understand the material and you'll have it all done for the end of the chapter. Do pay attention in class, because a lot of times when it seems that Mrs. French has no idea what she's talking about and you're doing something crazy, she's actually demonstrating something that will help you comprehend the lesson. Do ask questions, even if you think their dumb, because according to Mrs. French, everyone else has the same question but they're just too afraid to ask. Do stay after school or for Bruin block if you need help, because Mrs. French is always able to explain stuff. Do at least study a little (but preferably a lot) before your quizzes, because in this class, you'd be amazed what a difference ten minutes studying makes compared to nothing. I guess you should read ahead, but honestly, I have no idea if that's going to help or not. And that's pretty much all you have to do to be successful in this class, if you have good study habits and common sense you'll do fine. Oh, also, do be nice to Mrs. French, because she is always there to help you.

Be warned that this class is time consuming if you're going to do it right. I took 3 AP's and Spanish 4 this year, worked 3 days a week, played sports (volleyball!), was in SGA and class treasurer, and that was maybe, academically, a mistake. Make sure you have time for this course, but you have to make the decision of how much time you're going to spend on Stat for yourself. I didn't do that well in Stat this year but I still enjoyed the class so I probably would do it the same all over again.

Finally, Mrs. French might seem crazy at first; she might even be a little frustrating when she makes you find answers for yourself; but she is one of the best teachers I've had throughout high school. She is incredibly nice and if she can put up with me, she can put up with anyone.

So, if you're ready for a year of crazy lessons, skittles, complete responses, and Mrs. French, take AP Stat. And if that's not for you, think of it this way: it's better than AP Calculus!

Jimmy Harper

P.S. Specifically, the biggest thing that helped me this year was copying the complete response worksheets over and over again until I got it. You have no idea how much this will help you second semester.

P.P.S. All you do after the AP Exam is eat food, listen to music, play Jenga, and write letters. It is definitely worth it.

3. Dear AP Statistics Student:

By reading this letter you have probably already chosen AP Statistics as one of your courses for the coming school year. If you came into this class thinking that you will receive a free A without having to do any work, then you will probably get wrecked two weeks into the class. AP Statistics despite what you might have heard is actually a very helpful class and has many applications to the outside world. However, in order to actually succeed you must, **MUST** do your homework. The homework may or may not help supplement the material that you learn in class, but putting forth the effort and getting credit for homework is a very vital part of your grade in the class. There have been times where questions on quizzes or tests are so similar to your homework that you will be proud of yourself for taking the time to actually do the homework and understand the material.

If you plan on taking five APs like I did and also tackling this class, to be honest it is not that bad. The only reason that having AP Statistics as a course was difficult was because I neglected to do my homework until the very last second. Time management and spreading out the workload is

very crucial, especially when you are basically assigned homework every night. Although the homework for the most part is not difficult, it requires a lot of time to complete. However, if you have a severe case of procrastination, then you may want to consider potentially dropping a few of your APs in lieu of taking this course.

Although I never bothered to get into study groups for the class, it actually is something you may want to try, especially towards the end of the year. There have been many occasions where there were questions on homework that I could not figure out, and when I ended up asking someone in school how to do it the answer turned out to be something very simple so do not hesitate to ask your peers for help.

Towards the second half of the course, most of the material that needs to be done are complete responses. That means you will basically be given a blank sheet of paper, and have to fill the entire sheet up with one of approximately ten processes that you have to memorize and identify which one to use. Although it seems tough, doing complete responses becomes an automatic process after practice. Because the tests and quizzes can become a very lengthy process, I definitely suggest having plenty of sleep before testing days.

Since I took this course as a junior, I am probably still in school when you read this letter. Chances are you probably know who I am and are in a class with me the coming year. Next year as a senior your workload should not be too excruciating. If you do need help, do not hesitate to ask although I do recommend asking Mrs. French because you will probably end up getting a better answer from her. All the other letters probably are telling you how good senior year is and how taking this class during senior year was this and that. Well, it was pretty good taking this class as a junior too so if you are doing what I did and taking AP Statistics in your junior year then good for you. It actually might be tough for you because most of the people that take AP Statistics are seniors and you will be singled out, but it gets a lot better. Mrs. French does a lot of fun team building activities in the beginning of the year, so don't worry about it.

Do not be discouraged into taking this course, because many of the other classes that you may or may not take have applications of statistics in them that will actually help you in those classes. I've heard statistics terms being thrown out in Psychology, English, and even Calculus. Many teachers also do agree that statistics is definitely a subject that has multiple practical applications in all fields of work. The class really will be dependent on how much effort you put into it. Studying is not necessarily a must for a lot of the material, but constant practice and doing homework for supplementing the information is. Just try your best, and you should be fine. Mrs. French will always be there to help you if you do not understand the material. For the most part, you will probably not understand why you are doing many of the things in the class but it will slowly start to make sense and connect. Do not give up just because you do not understand at first. Just keep trying! And against my better judgment of not sounding corny, I leave you with a quote. "The beginning of knowledge is the discovery of something we do not understand."

Andy Hsu

4. Dear You Future AP Statistic Kids,

For those of you who took AP Statistics and thought it would be a breeze and way better than taking AP Calculus, it might, but don't get your hopes up.

Where shall we begin? Loads of homework? Or ridiculously hard tests? Not trying to scare you or anything just telling all of you all the plain old truth. It's a great class....most of the time. I'm just kidding you it's a pretty interesting class if you enjoy learning about statistics. Oh and did I forget to mention my home girl Mrs. French, she's pretty awesome if you get on her good side,

which shouldn't be too hard if you do your work and listen, or maybe be like me and just be plain hilarious, but it's tough to follow in my footsteps.

So the most important thing to make sure you do in this class is the homework, make sure you follow the homework schedule and do what is assigned that class before the next class, because I'll tell you falling behind is probably your worst nightmare. Believe me if you don't do your homework on a day to day basis you won't, WON'T get a good grade on this test. It is not one of those classes you can study ten minutes beforehand and pull off a B or something; you could probably pull off an F though.

Oh yes let's talk about those wonderful tests. They're hard. YOU BETTER NOT BE ABSENT TEST DAY. Or you'll have to take a make-up test which is probably about 21392184830 times harder. So yeah don't be absent test day, unless you can't walk (actually you could always have someone carry you to class, so there are actually no excuses). Studying would help too, lots of it would be nice if you wanted to get a good grade.

Are you good at memorizing things? Like lots of things, by things I mean words and tons of them. There are these things called complete responses that come around 3rd quarter, and they consist of many, many words you must engrave and pound into your mind. Yes it is pretty bad at first but it becomes second nature after awhile and you'll know everything by heart. But one great thing is you don't have to memorize ridiculous formulas because they are always given to you on test day.

Make sure you pay attention in class because if you space out for 10 minutes your pretty much lost for the rest of class, because most of the chapters build on each other. But if you do come into this situation where you daydream, don't be afraid to ask one of your classmates, because at least one of them will know what's going on and if not you could always ask Mrs. French.

So there is actually one great thing about this class, you get CANDY, yummy. It would suck if she suddenly stopped giving you candy for your class for some reason, because it's awesome. Usually this candy is incorporated in a lesson or an educational way but that does not really matter since you're getting candy!! You'll need that sugar boost if you have the class at the end of the day like I did.

Most important of all, study your gluteus maximus up for the AP exams because you really need to. Hopefully you won't have to do too much studying for it though because Mrs. French prepares you well for everything that you can expect. Everything is pummeled into your head by that time so it should come natural to you by then.

My word of advice is just don't slack off you will hate yourself for it if you do, especially if you're a senior because it is much harder to even think about school anymore.

Your Buddy,
Santana Hem

5. Hi, Mrs. French's future AP students! I'm Mrs. French's AP Statistics student in the year 2008-2009. Let me give you some advice to be successful in the AP Statistics class.

First of all, DO YOUR HOMEWORK EACH NIGHT! Homework really helps you do a better job on the quizzes or tests. For my class, Mrs. French usually collected homework on the test day by doing two random selections of the homework of that unit. However, after couple of weeks, my class ended up turning in ALL of the homework of that unit. The reason for that is, people never did their homework each night and ended up doing badly on the tests. Homework really helps you to learn and review the materials you learned in class. Mrs. French usually posts up the answers to the homework on blackboard, so do the homework each night and check the answers. It'll really boost your grade up. If you don't fully understand a problem to the homework, put a star next to that problem and ask Mrs. French for help the next class.

Usually, Mrs. French's quizzes and tests are really straight-forward and clear. I did badly on some of the tests, and I did well on some of the tests. The reason why I did badly on some of the tests was because of the time management. I did not have enough time to finish the test completely. Whenever I got stuck on one problem, I stayed on that problem for minutes to solve it. NEVER DO THIS! If you get stuck on one problem, go on to the next problem and come back to it later. It will definitely save time on your test. Mrs. French's tests are usually very long, about 4-6 pages. Really manage your time on your tests and do well on it.

The review sheets Mrs. French gives to you the day before the test is really important. The review questions are really similar to the questions on the test. Don't just memorize the answers on the review sheet, but try to understand and interpret the concept of that chapter. On the night before the test, you should do the review sheets, gather up all your homework for that chapter, and the most important, get a plenty of sleep.

For my senior year, I only took two AP classes. I took AP Calculus BC and AP Statistics. Because I only took two AP classes, I was able to manage my time really well. But some of you will take like four or five AP classes in one year, and that will really stress you out. Don't get stressed, and you should manage your time really well. Both of my Calculus class and Statistics class were on even days. Whenever I had tests for each class, I was really stressed out the day before the tests because I did not know which test to spend my time on studying. If I spend my time to study for the Calculus test, I'll bomb on the Stat test, and if I spend my time to study for the Stat test, I'll bomb on the Calc test. If I divide my time and study for both tests, I won't have enough time to review the materials I need. Both subjects were really important to me. My solution was this. On the night before the tests, I mainly studied for the Calc test because it was my 1st class on even days. If I had time left at night, I studied for the Stat test. On lunchtime or any other free time I had during school hours before Stat class, I spent that time to study for the Stat test. It did not do anything bad to hurt my Stat test scores. You should really manage your time of spending time on studying.

Finally, what I really want to say is that, statistics is really fun, so enjoy it. For example, whenever we do a lab in class, it always involved using M&Ms or Skittles. After the lab, you get to eat them. The M&Ms and Skittle you eat in Statistics class is the most delicious candy ever.

You should always do your homework, do the review sheets, manage your time well, study for the tests, and listen to Mrs. French. This way, you'll get a good grade in the AP Statistics class. Good luck, future AP Statistics students.

Sincerely, Ye Ji Kim

6.

Dear AP Statistics Students!

I am so glad that you have decided to take this course! Statistics is a very practical math that you will use the rest of your life. This class gives you a good head start in preparing for life and for when you need to take it for college. It is very challenging but also very fun! There are a few essential things you need to know in order to make your year as an AP Statistics student successful.

In my opinion, one of the most important things in this course is the homework. Not only will it boost your grade, but it will also help you learn the material that you are going to be tested on. Mrs. French doesn't usually collect homework until test day, but make sure you keep up with it. Most of the time, you will be given time in class to work on your homework and ask questions about parts you don't understand. If there isn't time to work on homework in class, ask questions the next time you have class. Also, the answers to the homework are posted on blackboard so you can check your work.

Another critical part of Statistics is the tests. Due to the subject matter, they aren't easy, so make sure you get a good night sleep the night before. Fortunately, the tests consist of two parts, the

multiple choice portion, and the free response section. This is good because if you are not as strong on one testing style, you can still do well on the other. A helpful hint is to never miss test day. If you do, not only will you be farther behind, but you will also be given a harder version of the original test. So, unless you are dying, I highly recommend taking the test on time.

Warm ups will also be collected on test day. Warm ups are given at the beginning of each class and are usually a couple problems on the subject we are about to learn. Keeping up with these warm ups is crucial. They introduce you to the new material and are a good way to boost your grade. If you miss a warm up, make sure you stay after class to make it up.

If you are having trouble in AP Statistics, make sure you stay after and get help immediately. Each lesson builds on the previous one, so if you don't understand one thing, it's only going to get harder. Mrs. French stays after school most days to help students and is always there during bruin block to give extra help. Classmates are also a good resource when needing help in Stat, as no tutors are available. If you ever just want to practice some problems, the APEX learning website is a great tool. You can take online quizzes and see your results so you can see exactly what mistakes you made. Mrs. French is also really good about giving back tests in a timely manner and regularly hands out grade reports so you always know where you stand in the class and have time to improve your grade if it isn't where you want it to be. Reviewing a little bit each night on the material you learned in class as well as doing the homework will ensure a fun and successful year in Stat.

AP Statistics is an educational course that will help you in the future. It will be an exciting year and you will learn a lot. Mrs. French has an interactive teaching style, which really helps you learn the material. Instead of just taking notes on the board, we are either covering the walls in post-it notes or doing simulations with M&M's and Skittles (which we get to eat later)! Everyone will get a lot out of this class and have a huge advantage over the other students. Also by taking AP Statistics you will get the one point bump which will help your GPA. AP Statistics is a challenging and exciting class. With my tips, you will have a wonderful and triumphant year in this course. Sincerely, Emily Peachey

7. Dear Future AP Stats Student,

First piece of advice read these letters and actually listen to them! I was in your shoes last year and I wish I had! Second, if you think this class is a joke you are wrong. It's not incredibly difficult but Mrs. French definitely keeps you busy. She's crazy but lovable and you'll have tons of fun.

AP Stats is not a math class. You can be horrible at math but be amazing at stats. Unlike math, it's all about concepts. There is math involved but everything is with a calculator. So, learn how to use your calculator and get good at it! Also write down in your notes how to do it on the calculator so when you're studying for your final you'll be able to do it again. Mrs. French will also give you a formula sheet at the beginning of the year—the same one that's on the AP exam—so learn what each symbol and formula means! You will get this and a calculator (she provides both) for every test and quiz.

In the first two quarters you will learn a lot and have lots of homework. Don't wait until the last minute to do your homework! There is a lot of it and it is all due on test days. She does post the answers online but the homework questions are a lot like her quizzes and tests so do them! Plus you have to show work so it requires you to at least do the process. The quizzes and tests aren't exceedingly hard but I recommend study groups for the tests. We had tons of fun in ours and they actually helped.

Third quarter is a little different. You will learn a complete response at the end of second quarter and then the majority of third quarter is spent learning another fifteen or so. They basically

are a really long way to answer a probability question with proof and a paragraph. It's not as bad as it sounds because they are all the same format just little differences. Mrs. French will give you about three paragraphs to memorize. MEMORIZE them! You will use them over and over again. Two of them will be the final answers on complete responses. Once you learn everything in the course you will begin to review before spring break even starts. It seems early but it comes fast and you'll be thankful!

Fourth quarter is the best! You have two huge 400 point tests right after spring break ends that cover everything learned this year. I won't lie; they are pretty difficult. So do the packets and study! Then about three weeks in, you'll have your final exam. It seems really early but it's just the week before your AP Stats exam. You will be prepared. It's not as bad as the two 400 point tests and you will have been already reviewing for the past month. Plus you will be so thankful that you got it out of the way. Then the next week is the AP exam and you'll be finished with Stats—for forever hopefully! The exam is long but not that difficult. You will be well-prepared. Once the exam is over, it is all fun. You have a huge fourth quarter project but it has nothing to do with statistics. You get to bake, cook and eat! There's service hours and letters involved, but it's all right because it helps your grade. Mrs. French is really relaxed after the exams. Yesterday we played JENGA and listened to 5E ('09 LB rappers) and oldies. (I also played Shopping Cart Hero but don't tell Mrs. French! ;))

AP Stats is actually a really good class and you'll be glad you're taking it! Mrs. French is crazy but you will love it! She teaches us by letting us experiment and having us try to discover it for ourselves. She does a lot of hands on teaching and we ALWAYS have food! We learn probability with candy and cereal and she almost always has something you can snack on! You randomly get seats but by the end of the year, you'll be friends with everyone. The class is almost all seniors so if you're a junior it's pretty chill and there will be a lot of new people you'll become friends with. She's pretty relaxed about most things like having class with the lights off and just having a good time. Just don't ever do other work or cheat/copy! Mrs. French doesn't tolerate it! She also is very helpful so if you don't understand something or need help don't be afraid to ask. Come afterschool or during Bruin Block and she'll gladly help.

So to sum things up, AP Stats is a really fun class that you'll definitely have a good time in. Just do the homework when it's assigned, study for the tests and don't be afraid to ask questions. You're going to be well prepared for the AP exam and hopefully get some college credit! Good luck next year!

Nikki Samec

8. Dear Future AP Students,

I took this class because I did not want to take Calculus my senior year but my counselor wouldn't let me take regular Statistics. AP Statistics is a challenging course but I'm glad I ended up in this class instead of a super hard Calculus class or a boring Statistics class because for the first time ever I understood how this math class could be used later in life. AP Statistics has the most real life situations that I have ever encountered in a math class, all of the problems that we solve could be applied to real life and the questions often give interesting facts about the world we live in.

There are two easy but very important grades every quarter in Mrs. French's class, warm-up journals and homework. From the first day of school make sure you have one of those speckled composition books to write your warm-ups in because she will not accept anything in a spiral notebook! You don't even have to do a warm-up every morning but when you are assigned one make sure you do it because the notebook will be collected for a completion grade at the end of the chapter. If you've done all of your warm-ups you'll get

an easy A and sometimes you even get to eat candy as part of the warm-up lesson! Homework is even more important than warm-ups, like the journals, Mrs. French collects the homework as a completion grade, also making it an easy A. As this is an AP course sometimes you have to fill in the gaps for yourself so by doing your homework you learn things you may have not picked up on in class. Homework assignments are given in chunks and it's best to do them day by day instead of waiting until the night before the test because procrastinating will only get you a tedious 8 hour night of homework. If you do the homework the day it is assigned it should only take about 30 minutes to an hour to do.

You'll need to study for every test that you take because none of them are easy. When you start taking the complete response quizzes memorize the tests that you do in class and you'll ace all the quizzes because they are word for word for the tests that you do in class. The final exam was pretty hard so make sure you actually study for it too. Mrs. French is a pretty hard test grader so make sure all of the details that she asks for in a free response are accounted for or else you'll get points taken off.

The AP exam was horrible but that's because I have no attention span and can't sit still for four hours. If you do your work in class and get fairly good grades you will be prepared, especially for the complete response part because Mrs. French drills the procedure into your brains. After the AP exam, fourth quarter is a breeze because we take the final before the AP exam so it's a good way to end your senior year.

This class is pretty hard but if you keep up with your homework you'll do fine. Doing my homework helped me the most in this class so make sure you do everything she assigns! Don't be afraid to come in early and ask questions or take advantage of your Bruin Block time to come to this class. The one on one help really makes a difference and ultimately will help improve your grade, especially if you come in the morning before the test so it's all fresh in your brain.

Have a great senior year and good luck in all of your classes!

Sincerely,
Sarah Collie

9. To. Future AP students!

Hello, this is one of AP statistics students of 08-09. I will give you some suggestions on how to succeed on your school year for AP statistics, and some interesting information about this class.

First, do not be late to class. The teacher will not accept any excuses for your tardy. Think of being late to class as you being late to an important interview or meeting. Secondly, please attend all the classes unless you are really sick. Some seniors usually skip school and do not attend every class that they are supposed to, but this is not the kind I strongly recommend. If you omit the class, then you have to make up the lecture. Omitting lecture, you will not be able to do your homework and understand next section. Third, do all the homework. This is one of the ways to raise your grade. If you do not do your homework; you cannot do well on your test. Fourth, please memorize the one that you have to, because you will have a quiz on it. Fifth, do not sleep in class. Any teacher would expect students to not fall a sleep during class. These five strategies I recommend to you which will bring you closer to succeeding in your AP statistics class.

You will always see the smiling face of Ms. French, who is the only statistics teacher, and you feel good by looking at her smiling. You will have fun in class with m&m and skittles. You will do fun exercises and eat those candies after that. You will learn new materials every lecture, so you will not be bored. You can get help from Ms. French or by making a study group. If you get help from Ms. French, then use the time you have before school starts or after school. If you make a

study group, then you will have another set of fun in statistics. Also, you will get enough review packets, and do many practices for the test. It will feel like you have a lot of things to do, but those reviews will absolutely help you in getting a good grade. I am telling you guys all the things I have experienced in her class. I hope your statistics class will be a fun and interesting year for you.

Sincerely,
Chelsea Koo

10. Dear future AP student,

I hope you will enjoy this class as much as I have this year. It is a class with one of the happiest teachers I have ever known. I'm sure her joyfulness will spread onto you as it has onto me. Once you begin to get full steam into the curriculum, don't forget that AP Statistics is not like your average math class. You will have to memorize some stuff and learn new variables that will be essential to your success in AP Statistics. One piece of advice is to always do homework and always make sure it is turned in on time. There is no such thing as late homework in this class but doing the homework will definitely, one hundred percent increase your test scores. Another tip would be to not be lazy and remember that although the first quarter may be easy; you shouldn't underestimate the workload of the class. The year will get harder as you progress throughout the year. I thought AP Statistics was going to be an easy class in the beginning of the year but I have learned that this is false. It is as tough as or sometimes tougher than other AP classes.

Mrs. French is a very encouraging teacher. Don't be afraid to ask questions in class or to ask her for extra help. It is always heart warming to see Mrs. French dedicated to her students, by standing outside her classroom every morning and saying good morning to us. One of the best aspects of the class is that you will also receive food during some of the experiments in class. This is the only class that I have received so much food while doing experiments and such. With this method I'm sure you will learn exactly what the Mrs. French was trying to teach you. One of the biggest skills you will need to succeed in this class is time management. Without time management skills you will probably procrastinate a lot and this will lead to your downfall. When you successfully manage your time and get your homework done in an orderly fashion the class will be easy and the workload will not be an overburden. One advice to seniors would be to not skip the class. Each day is very important and if you miss a critical part in the class it will be hard to catch up. Don't skip test days either because you will have a retake or you will probably receive the score you would have received if you had not skipped. Besides why would you want to skip such a fantastic class as AP Statistics with such an amazing teacher as Mrs. French? This class will be very enjoyable if you do your work and finish it on time and if you manage your time wisely.

When studying for the AP exam remember to buy an AP book and remember to constantly refer back to it throughout the year. It is a very helpful resource and it will definitely increase your chances of getting a passing grade or even a four or a five on the AP exam. Also remember to learn the complete responses Mrs. French gives to you because they are essential in her tests as well as on the AP exams. They are worth big points and the free response proportions are largely based on them. It may seem that there are an overwhelming number of complete responses you must know don't fret. Most of them are closely related and it is not hard to derive the basics of them. Mrs. French's approach to have you learning them is very effective. Make sure you aren't lazy and you don't concentrate on the complete responses. Learn them as soon as you get them and you will be fine. The effort you put into this class will definitely be worth it and also if you're thinking about majoring in anything that has to do with statistics, this class will definitely give you an edge once you reach college. I have heard countless stories about how people who have taken this class have easily aced their college course on statistics. Mrs. French is a very good teacher in statistics and she

is also very educated in statistics as well. One warning is that you should never be lazy and never procrastinate. These two things will hurt your grade as well as your chances of getting a good score on the AP exam.

David Roh

11. Dear Future AP Students,

First, I'd like to tell you all to make sure you are ready for this class. When signing up for classes last year I heard from some people to take AP Statistics because it was "one of the easiest APs!" So not true. This year has been crazy, being a senior is amazing, but don't think you can walk into class with "senioritis" any day. But, in this letter I hope to share with you a few hints to help you succeed and get the most out of this class.

One of the main aspects of this class is the homework. Every Statistics class you WILL be assigned a lot of homework, and it's in your best interest to actually do it. In the beginning of the year you'll probably be all fueled up and energized for the year and you'll actually do it, but it gets hard to keep completing all the assignments once you get to the harder stuff. Personally, I slacked off a little towards the end of the year on homework, but doing homework really helps in feeling prepared and knowledgeable in class. It isn't busy work, this homework will actually help you learn for the tests and class work. Don't think you're alone doing homework either, because there are lots of materials you can use for help.

You should know now, that your graphing calculator will be one of your best friends in this class. If you don't know the basics, learn them now, because everything you learn in class will be made easier with the calculator. In other classes I know teachers have stressed the importance of calculators when really they're used like five times, but in Statistics I assure you getting to know your calculator will help you in EVERY class. Mrs. French moves pretty quickly through the material, so another thing that will help immensely is taking thorough notes in the class. I've found that many times I didn't quite understand the lesson in class completely, but being able to slowly work through it at home was easy with my notes. Oh, and this isn't one of the classes that you just throw away all your notes to clear out your binder when you're done with the chapter. Somehow, I've been able to save all my notes and work from the year in my folder and it's so nice to look back all the way to the first chapter and refresh my memory for the final and AP exam. Remember, this class is cumulative, so you will frequently flip back to prior notes and chapters to understand the material.

Then comes the rock, the base, the foundation, of your year of statistics, Mrs. French. You know the woman always smiling, saying good morning to everyone in the hallway? Yep, that's her. She's going to be your teacher this year, and you better believe she knows her statistics down pat. As I said before, this class is not easy, this class is not a joke, and she doesn't treat it like one. She's going to expect a lot from you, from the homework to the tests, you might even fail a couple before you realize the work you must do. But, don't let that scare you too much, because another thing is that Mrs. French truly just wants you to learn and succeed, ultimately for the AP exam in May. So, never be afraid to raise your hand, or come in early for help (everyone does it at some point), because she will always go over things with you until you understand.

Something everyone dreads, I know I do, are tests. Mrs. French does have tests every couple weeks or so on the material. I know tests sound horrible, but having one so often will force you to study and actually learn the material as the course progresses, instead of cramming at the end. Paying attention in class will also help immensely because most of the time Mrs. French will actually tell you what's on the test! As I said before, she really just wants you to succeed and learn.

The AP Statistics in May is a scary thought, believe me, I know and everyone who ever took Stat knows too. But, there are things you can do to relieve that stress.

In the beginning of the year you buy “5 Steps to a 5,” and is a perfect review book before the AP Exam or even the final. I only used it to review a couple weeks before the exam, and it still helped, but if you use “5 Steps to a 5” throughout the year, you’ll probably be even more prepared than I was.

Basically, this class is a lot of hard work and will force you to work your brain, but I promise that when it’s all done, when you’ve finished learning all the formulas and seemingly endless complete responses (don’t worry you shouldn’t know what those are yet), you will be proud of what you accomplished. Honestly, sometimes I wanted to burn my statistics book and throw it out the window, but now I’m glad I didn’t because this course could waive a chunk of math requirements in college! Just always remember that you have a great support system with Mrs. French and your classmates, and it will be worth it. Good luck and hope you have a great year!
Sincerely,
Rachel Toner

12. Dear Future AP Students,

When I signed up for Statistics the only basis of my choice was that it wasn’t Calculus. However, when beginning the class I realized that statistics does not deal with numbers but rather concepts and some common sense. This course will help you in the real world and can be applied to everyday activities. I can truthfully say this was the only math class I felt I could use in “real life”.

There is no time wasted jumping into the wonderful world of statistics in the first quarter. The summer packet is the basis of what you will be learning for the entire first quarter. The first quarter was difficult because it is right after the long relaxing summer, but if you can adjust then, you will be set for the rest of the year. The second quarter was harder because the content became more in depth, and more detailed. If you can create an effective routine of homework and studying you will do fine. After the first semester I was eager to become a “second semester senior”, however, statistics never slowed down. If you push yourself and take advantage of every opportunity Mrs. French gives you to succeed you will. And after the AP test, and after the final, you get to bake!

Mrs. French taught us using methods such as putting post-it notes on the walls to make graphs, finding the probability you’ll get a green M&M, and the distribution of skittles in a bag. These were fun ways to learn about statistics and I found them both practical and tasty. I tend to get distracted and bored in school, as I’m sure many of you do, and using food definitely kept my attention.

To really succeed in AP Stat you have to pay attention in class. If you fall asleep during class, or you just don’t care, you will miss out on an important lesson that will probably be on a quiz the next day. We were quizzed consistently each week and I believe that helped us to retain the information we learned without disregarding it till the next test. You not only have to pay attention in class, you have to be able to study for each quiz and test. I may have once or twice decided to wing a test or quiz and I faced the consequences. I would find myself sitting there while taking the test staring off into space attempting to remember that one sentence, that one equation, that thing we learned on Tuesday, and would end up getting it wrong because I did not study before hand. My grade reflected my effort and I could see that if I wanted to succeed I would have to study.

Complete Responses. Study them. You will have to know every single word, every single equation, every single condition, and you will have to be able to replicate it WORD for WORD. Do not take the complete responses lightly because you will be beating yourself up later for getting a

point off for forgetting the word “or”. While taking the AP test I realized that the one thing I knew the most were complete responses.

Mrs. French prepares you very well for the AP test through homework assignments, tests, quizzes, and complete responses. However difficult the AP test may be, you will have all the information you need from this class.

Statistics is a class worth while to take because it applies to everyday situations and problems. You will have the opportunity to learn through different teaching methods, and you will gain an advantage for the AP test as well as for college. So good luck to all of you guys! I hope you enjoy Stat and make sure to work hard, but most of all enjoy your senior year!!!

Sincerely,
Alissa Hamby

13. Dear Future AP Stat Students,

You have absolutely no idea what you’ve gotten yourself into. I’m writing this letter to you to send a positive message about this class, but also to give you some tips and pointers to help make your life just a little bit easier.

First things first, make sure to study. I know it’s a cliché and you hear that over and over again from your teachers and parents, but it’s something you absolutely must do. I’m not the type to actually go out of my way completely and study for something unless I know I need to, but in this class studying is a must. You’ll realize that not studying for even one quiz will have a significant impact on your grade for that quarter. I completely understand that it’s senior year and all you want to do is graduate and enjoy the last couple months with your friends before you head off to college for the next four years. Take it from me; you will need to study.

Statistics is a little weird at first. You’re told that this is just another “math class,” but it’s really much more than that. When you first start learning from the lovely Mrs. French, you’re going to start panicking once you realize that there’s no algebra or specific math formula that will generate the only correct answer. In statistics there is usually more than just one right answer, and your going to really like the idea of having many interpretations to a math problem.

If you love eating, then this class is for you. Mrs. French always teaches her lessons using either Skittles or M&M’s, and I must say, it really helps to keep you awake. Not that statistics is boring, but like any class, things can tend to drag on after awhile.

Let me tell you a little info about your teacher for next year, Mrs. French. Although at the beginning of the year you might think that she is absolutely bizarre because she makes you give your table “high-fives” and do “freeze-please!” every five minutes, but she’s really not. I’ve honestly grown to love her as a teacher and as a friend and a mentor, and you will too. You’ll see her everywhere you go around school because she’s constantly running around doing something, (usually in the best interest of her students.) She’s the woman that posts up outside of her classroom just innocently by-standing the senior hallway and watching the many students walk up and down the crowded halls day in and day out. She’s the woman who will always go the extra mile to help you learn, whether being there at 6:30am or until 4 in the afternoon, she’s there for you. She’s the woman who you will learn to love and appreciate as the year goes on.

Scenario; let’s say that it was 11 o’clock at night, all 14 homework assignments are due tomorrow morning for stat, and you haven’t even started. You could either copy all of the answers off of blackboard and hope you get by on a homework check for maybe 1/30th of the credit, or stay up for a couple hours and actually try and learn the material. Tough decision, I would know because I’ve done both. But I must say, **DO THE HOMEWORK THE RIGHT WAY**. What’s the point in taking all the time and effort to copy the answers (that show zero work by the way,) when you

aren't even going to get credit for them? Exactly, there isn't. I cannot stress enough to you future AP reader, do the homework the right way.

Enjoy senior year, you'll love it, it's a ball. But just make sure that you study, do your homework the right way, and live everyday with a 100% confidence interval, because after all, statistics is just another way to measure the certainty of life.

Sincerely,

Louis Magnotti

14. Dear Future AP statistics student,

This class that you have signed up for is not going to be a walk in the park. This class is going to take a lot of effort on your part to pass. You may think that it is hard in the beginning of the school year, but just wait till the very end of the school year when it gets really busy a couple weeks before the AP exam. This may all seem horrible and you may be thinking about dropping the AP class, but all of the work that you will do that year will prepare you for the AP exam.

In order to be successful in this class, you will need to be in tip top shape. No goofing off, well at least not too much, in this class. The best thing to do is the homework that is assigned. Complete the homework the night it is assigned or else you are just setting yourself up to fail before the test when it is all due. And actually do the homework yourself. Don't have someone else do it and then you copy them. The best way to study what you learn in this class is to actually do the work for yourself.

This is not a class that you are going to want to sleep in. this class you are going to need to pay attention in. Even if you only sleep through one class, you are far behind the next day in class. Again, believe me when I say you need to study and pay attention in this class.

I personally started out this class not trying at all. That was the worst choice I made all year. I didn't start trying until I realized that I was going to fail the class unless I changed my attitude towards it. Once I started trying to understand statistics, it got a little easier. I still had a lot to catch up on because I decided to sit out the first quarter, but after I started working in the class, I finally started to understand most of the stuff we were talking about. Everyone will have some question about something in this class. There is no way anyone can comprehend all of it in one day.

There are some things you will have to do starting around the end of winter. These things that you will have to start doing are called complete responses. You will learn about 15 different responses. She will teach you word for word how to write the response. In order to get full credit, you will have to remember word for word what she taught you. This is not that hard. The only hard part is being able to distinguish which complete response is which. But this is actually pretty easy and it gets you some easy points that you may need to balance out a previous grade just like I did. She gives you a lot of handouts to that also help. And the quizzes that she gives you on the complete responses, she gives you the exact problem the day before, and also the answers to that problem. So again, all you have to do is memorize.

You take the final exam before the AP exam as a sort of review for the tests. After all the tests are completed at around the beginning of may she gives you a project for the last month in class that is pretty simple also. It may seem like a lot but none of it has to do with statistics. It is only related to statistics because you are given the project in statistics class. I'm not sure if I can tell you much about it but its not too hard.

I wish you all the best of luck for the year to come. If you're a junior, work hard to get an A. If you're a senior, you still need to work hard. This will not be the toughest class but its not an easy class wither. Good luck and god speed.

Sincerely, *Patrick Read*

15. Dear Future AP Students,

If you for any reason heard that this course is easy, you were definitely misled. One, it is not a math class, and two, we do not sit around and play games on the computers. (We don't even use computers.) This course is very difficult, but you can make it easier by doing all of your homework and paying attention during class and during warm-ups.

The majority of the lessons come from warm-ups. Don't waste time goofing off and waiting for the class to give you the answers. Do it yourself so you learn the concepts. Make sure you also keep up with the warm-ups if you are sick. Mrs. French collects warm-up books every test day.

Along with doing warm-ups, make sure you do all of your homework. At the beginning, homework is checked every day which makes you do your homework. But after the 1st quarter, Mrs. French collects homework on either test or quiz days. So usually after Mrs. French stops checking homework every day, people start slacking off and don't do the homework 'til the day before the test or quiz. But by doing that, you are just worried about having the homework complete and not really understanding the material. Doing the homework and reading the chapters is the best and most effective way to pass this class with a good grade.

Mrs. French doesn't teach with a boring bunch of notes. We do labs and experiments in class so we get a better and more hands on of the concept we are learning about. And most of the times we are given skittles or M&Ms.

You will be doing a lot of complete responses in this course. They are very repetitive and confusing, but when it comes time to the AP exam, you'll be very thankful for Mrs. French making us do them over and over again. You will also be given paragraphs to memorize for certain complete responses; make sure you do!

Junior and senior year are both critical years and a lot of students pile on the AP courses. My advice, place this AP at the top of your AP list of priorities. Get together with a study group and work on the different concepts. Trust me, there are a lot. Also, Mrs. French is at school early every morning and usually stays after school on late bus days. Don't be scared to ask her questions. She's the best source to go to for something you don't understand.

So, here is the sum up. Do your homework, read the chapters, do the warm-ups, memorize complete responses, and ask questions. Oh, I forgot, the most important thing you need to know about this class...don't miss quiz or test days! Mrs. French makes the hardest make-ups known to man. If your philosophy is, "I'm not ready for the test, I'm going to skip and study more," get a new philosophy. One, you are most likely not going to study, and two, there would be no point because the tests are a zillion times harder.

If you do everything I say and don't stress too much over this course, you will do fine. Just know it's a lot of hard work. But like all things that are difficult and seem impossible at the time, it will be worth it at the end when you get college credit for it.

Best of Luck, Tina Bui

16. Dear Future AP Stat Students,

As I was one of the few (and proud) juniors that took this class, let me open this letter with a warning: THIS IS NOT A JOKE CLASS!!!! I took this class instead of Pre-Calc, thinking that it would be easier, and I would get additional credit while I slacked off and slept through most of the lessons. Let me just say I am happy I passed. Every day you learn something new, and you HAVE to keep on top of the homework, or else you'll struggle to the bitter end like I did. Now, if you are looking for a healthy alternative to Calculus, this class is a great choice. The classes are generally straight to the point, either giving you notes or allowing you to practice and apply what you (should have) learned. Sometimes, you'll walk into class to be greeted with a bowl of M&Ms or Skittles,

and other days you'll walk in to meet a mess of papers, tests, and quizzes. This class is just as serious as any other reputable class; don't take it lightly.

If you have bothered to read further into this letter, allow me to present to you some of the things I did, as well as things I should have done. My biggest mistake was never doing my homework. As a lazy slacker, my book gathered dust at home while I goofed off with my friends and the whatnot. Sadly, I would have to say that not completing my homework resulted in my rather poor grade. My biggest tip? DO YOUR HOMEWORK! It will literally save your grade. The second most important thing that I should have done was pay attention in class. Everything you learn builds upon itself, and while the class starts out rather easily, it quickly builds up to the point where you are literally memorizing paragraphs. After completely sleeping through the second quarter, I was only able to start up when we moved onto a new subject, and the knowledge I missed constantly sapped away my grade. Also beware, as Mrs. French is a watchdog for cheating. While I hold myself to a strict "I fail by myself" policy, I know some people don't. Just remember, at least you'll know what you should have studied. And my last big piece of advice? Get a friend, and get to work. Things are a lot easier to do in groups, where you can help each other, and probably have a good time, instead of sitting around scratching your head while trying to remember the lesson you slept through. Things work better with other people by your side.

Let me throw in a few details about your future teacher, Mrs. French. She is at school essentially whenever you need to see her, she's always willing to help you if you want it, she grades your work quickly, and generally has a happy smile and a cheerful persona. Now, after saying that, let me put in this little warning; she is a brutally strict teacher. Your homework not in? That's a zero. Misunderstood an assignment and did it wrong? That's a zero. When its business time, its business time. If you are going to joke around, know when to stop. If you're going to sleep, look like you're awake. While she can be ruthlessly strict, if you do what you're supposed to, you'll do well in the class.

If I had to choose one thing that is the best part of the class, it would be after the AP Exam. Why, you ask? Well, it's exactly what the rest of the year for an AP class should be. We play games, we have a food festival, and no serious work to do. In fact, writing this letter gives me 200 points! Then again, it makes up for bombing the two 400 point tests earlier in the quarter...>< Regardless, the class builds up to the AP Exam, and after that, the stress falls to the ground. You even take the final before the exam (which I can proudly say I passed...and even got a decent grade on it!). If you keep up with the workload, everything works out.

So, as you read this letter in your AP STAT summer packet, enjoy the good times. Relax, hang with your friends, go to the beach, and don't fret too much about your senior year. Just take everything that comes at you one step at a time, and everything will work out. Odds say some of you know me anyway, so if you read this, remind me. Then I can laugh about how I made it through (somehow). And no, I can't give you the homework I never did =).

Good Luck,
Jake Lieber XD

17. Dear Future AP Statistics Student,

I am writing this letter to try and help you make it though your senior/ junior year with as much ease as possible. If you take my advice, hopefully your time in this class will be somewhat easier and much more enjoyable. First things first, for all you seniors, try your best to not fall into the typical senior patterns of skipping class and "forgetting" to do your homework. It is necessary that you work hard for at least the first semester, because colleges are looking at your senior grades, and they really can be that deciding factor that gets you in or keeps you from your top choice

school. Secondly, this class gets progressively more difficult throughout the year, so make sure that if you do have that sudden urge to simply skip out on school on that lovely Friday afternoon, make sure you're not missing Statistics. In this letter I am basically just going to give you a rundown of each quarter and what you should try and do to make your life easier.

Okay, so first quarter is just relearning things you've probably learned before. We go through the summer packet, which is actually really helpful, so make sure that you do it. Mrs. French also really tries to ease you into the school year by starting off the year with a light workload. You can expect to have homework every night, and it really is important that you do it. The questions on Mrs. French's tests are really similar to the problems that she assigns for homework. So, basically if you do the homework, you're getting a sneak peek at the test. Mrs. French also makes a great effort to make the class fun. During the first quarter you'll get to do a couple of lessons that include skittles, cheerios, and/or m&ms (which, of course, you get to eat). Overall, the your first quarter in this class should not be too bad.

Second quarter is a bit more challenging, and this is when you will really get into the meat of statistics. Everything from here on out is new material, at least if was for me. The workload will definitely begin to increase this quarter, so just be sure to keep up with the homework. It is also necessary to make sure that you are actually studying for tests. If Mrs. French gives you a test review, do it. It will pay off. Also, this quarter there may be a couple of key phrases or bullet points that Mrs. French will tell you to memorize. It really is essential that you memorize these things. Not only can I assure you that they will be on her tests, but you will need them for the next two quarters as well.

All right, so by now it's the second semester, and you seniors are probably fed up with school and just about ready to throw in the towel. However, if you give up this quarter, your grade will plummet. Third quarter is comprised of many more tests, quizzes, homework assignments, and lastly memorizing. This quarter is basically all memorizing. You will probably feel bombarded with work this quarter, but the only advice I have for you is, do the work, and memorize the complete responses. It is essential for you to know how to do a complete response by heart, and Mrs. French does a good job of making sure that you know how to do them by heart. You will have a complete response quiz almost every week this quarter, and they will also be on every test from this point on. The one thing that I wished I had done is memorized how to do each complete response when I received them, instead of cramming the night before a test or quiz. Again, just to reiterate, make sure that this quarter you memorize the complete responses, keep up with homework, and seniors, don't slack off.

Fourth quarter is half bad and half good. The first half of fourth quarter will be absolutely miserable. You will finish up the final chapters in the textbook, and immediately begin reviewing for the AP Exam. You are going to receive ten packets or so, and each of them is quite lengthy. Mrs. French will post a schedule of what you will be doing each week up to the AP Exam. This schedule will include about three or four 400 point tests, and your final exam, which is the week before the AP Exam. Although you will probably hate this class by this point, it really does help to do the work. However, once you've taken the exam, and made it through the previous last few weeks of hard work, the class is all down hill from here. You will get to end your year eating delicious food made by your peers, and helping your community. In the end, all that hard work will have paid off, and you can end your year having fun.

I hope this letter was helpful. I just want you to know that you've signed up for a difficult, but good class. It will take some hard work on your end, but you will definitely be prepared for the AP Exam at the end of the year. For you seniors, I hope you have a great last year, and enjoy your final days at Lake Braddock. I guess all there is left to say is good luck and have fun.

Sincerely,
Nadeen Khoury