

AP STATISTICS
SUMMER FUNCS
2005



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 (Q₃) and the 25th percentile (Q₁). This is Q₃ - Q₁. Q₁ is the median of the lower half of the data and Q₃ 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.

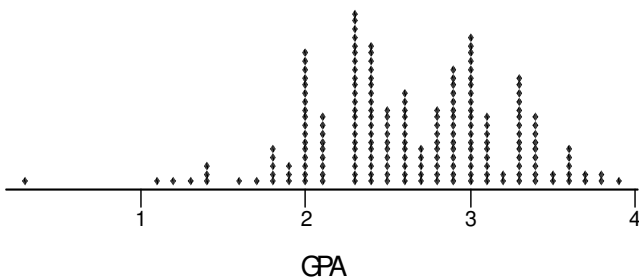
Dad _____

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.

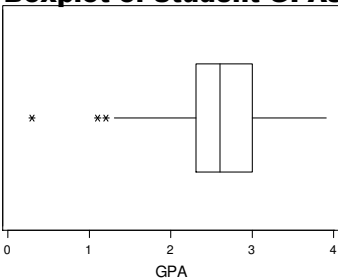
Stemplot of Student GPAs

1		23
1		444
1		67
1		88888999
2		0000000000000000000011111111
2		3333333333333333333333333333
2		4444444444444444444444445555555555
2		666666666666666677777
2		8888888888999999999999999999
3		000000000000000000000000000011111111
3		223333333333333333333333
3		444444444455
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.

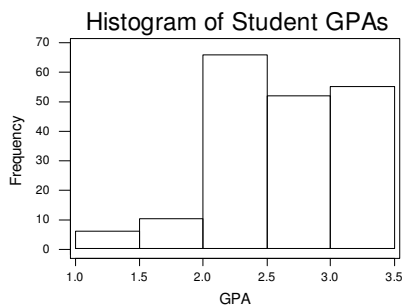
Boxplot of Student GPAs



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.



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.

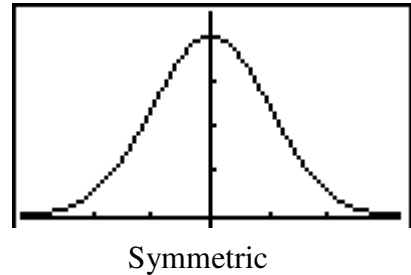
Categorical Data: Bar Graph
Circle Graph

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

Assessing the *Shape* of a Graph

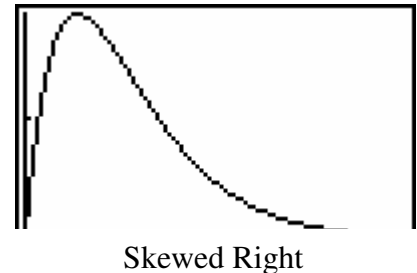
There are two basic shapes that we will examine: *Symmetric* and *Skewed*.

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 gaps, 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

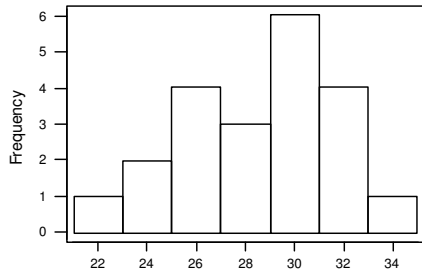
- What is the shape of this graph? _____
 - Using your stemplot, find the median of this data. _____
 - Which data display is better - a boxplot or a stemplot? _____
Why? (More detail?)
3. For the following graphs, find the shape, center (**just do the median**), and spread (find only the **range**). 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.

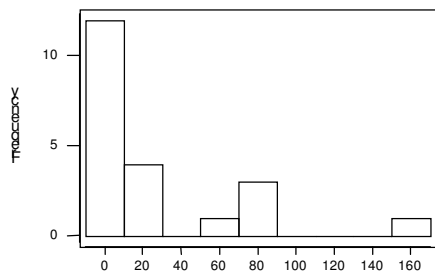
Count how many are in each bar. Add these up and divide by two. This tells you where the median is located. Which bar is this value in? That's the median. For graph A, $n = 21$, so the middle value is 10.5. Starting with the first bar count $1 + 2 + 4 + 3 + 6...$ So the median is in the bar that contains 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



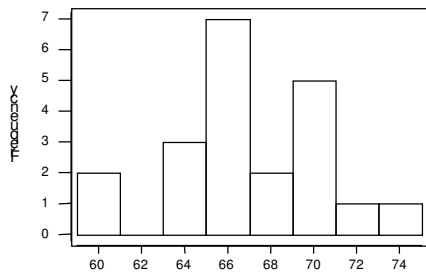
Shape _____
 Center _____
 Spread _____

B



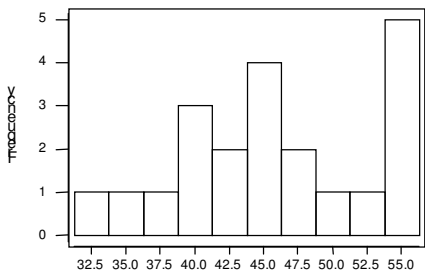
Shape _____
 Center _____
 Spread _____
 Clusters, Gaps? _____ Where?
 Outliers? _____ Where?

C



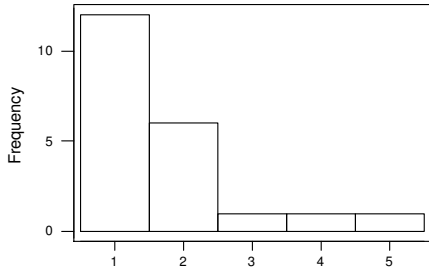
Shape _____
 Center _____
 Spread _____
 Clusters, Gaps? _____ Where?

D



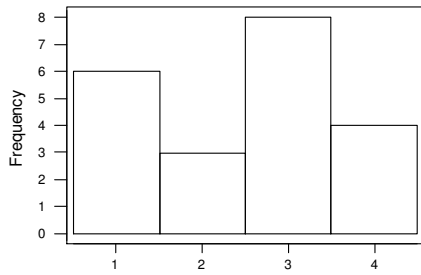
Shape _____
 Center _____
 Spread _____

E



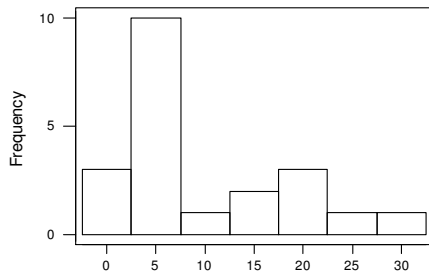
Shape _____
Center _____
Spread _____
Clusters? _____ Where?

F



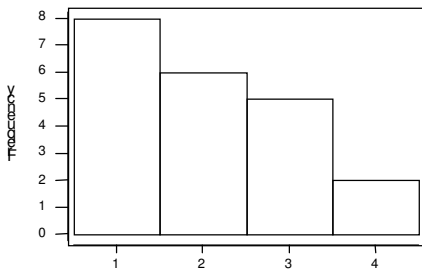
Shape _____
Center _____
Spread _____

G

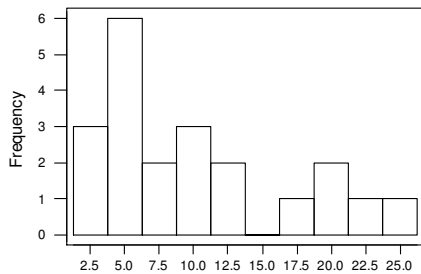


Shape _____
Center _____
Spread _____

H



Shape _____
Center _____
Spread _____



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 _____

Average # of CD's 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 2004 - 05.

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 second day of school, 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 (100 points). The test will count for an additional 100 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:

<http://schoolnotes.com/22015/tfrench.html>

So, you're taking statistics, not just any statistics: AP Statistics. You'll learn about fun things like confidence intervals, hypothesis tests and sampling solutions. I know that you've probably never heard of these and you shouldn't worry about that, we didn't either at your stage in this game.

When I started in this course, I had heard absolutely nothing about it; my original idea was to sign up for AP Calculus. However I'm planning on going on to the social sciences so when my counselor found out that I was taking calc, she advised me to switch to stat because it would give me more experience. This might have been your situation, but most likely you signed up for this class for a different reason: the lessons, the college credit, because your friend who has problems tells you that they'll hate you forever and never talk to you again if you don't take this class (well, I don't know many others that took the class for that reason but this is high school, kids here are over emotional).

Contrary to what I heard, there were several others that took this class because they thought that it was a slack class. Sorry to say this is untrue, the class is tough only because it gives so much information. Other math classes like Trigonometry and Math Analysis involve a lot of review and work that's given to you to grind the information into your brain (some of you call it busy work, I know I certainly did). However, statistics isn't a true math class... take a few minutes to let that soak in... what you don't believe me? I know I didn't believe it either, but think about it; other math classes can't really apply to the real world unless you're an engineer or some sort of scientist; Statistics does. I realized this when I was watching a news report with Katie Curic on teens and sex; for a survey that they did they used 1000 teens. I didn't realize it before, but that sample size is way too small. I mean come on: 1000 teens to represent the approximately 44 million teens, how on earth could one even use data with a sample size that small. Then I saw the margin of error, it was like 5-6%; this was outrageous and I was about to turn this off, then my psychology teacher yelled at me for getting up in front of the TV so I was forced to take it in. The fact is that Statistics is seen in the modern world.

As I said before, this class has a lot of information thrown at you. The need to take notes and learn the notes is a necessity and it will help you survive in this class. Something else (that was a little harder for me) that helped is to get help, whether from the teacher, other students or your family: it helps. I know that when my semester grade was a D+ (don't worry I wasn't very good at this time) I realized that I needed help. I was lucky because my dad has a college degree in Operations Research which involves a lot of statistics. He helped me and eventually I get a B+ on the final exam. Get help: you're fortunate to have an awesome teacher, Mrs. French is amazingly

awesome and you'll eventually be saying "gee, that AP test was easier than her tests" you read this with shock, but trust me, when you're in that gym and you're about to open that AP exam and you'll remember that I said that it would be easy... would I lie to you... the answer is no.

One last thing: don't trust the letters that say it's easy and that you don't have to do any work. These were written by students that were considered for valedictorian and they are what we call "Overachievers." The truth is that you don't need to be an overachiever to pass this class with a fine grade. Just work hard and have and give help along the way.

Good luck and enjoy the m&ms

Brian Comer

2.

Dear AP Statistics Student,

I want to start by saying that AP Stat is a good course to be in because it is fun and challenging at the same time. This summer as you read this letter make sure you get it through your head that this is not an 'easy class.' Be prepared to do your homework every night, and truly learn statistics or else you will not get the results you want. Statistics is not an impossible subject to learn and if you do your homework, pay attention in class, ask questions, and study. If you do all of these things you will get the grade you deserve just because Mrs. French has designed this course in that way. If you enter AP Statistics with this mindset it will only benefit you and no one else.

Mrs. French is an awesome teacher, period. She really knows her stuff and explains stuff really well. One might think that Mrs. French is all work and no play, but that is not entirely true. It is true that she gets into the material quick and goes through it thoroughly but along the way you'll watch relevant videos, play with candy ("data"), work in groups, and do cool statistics projects. Once you ace the AP Statistics exam, the course becomes pretty laid back and not only do you become thankful for Mrs. French because she prepared you so well but you get to see Mrs. French's real side and it is fun to watch. =)

There are several key tips to getting a high grade in this class. Make it clear to yourselves that you WILL get an A if you deserve it, just like any other college-level course. I personally was not a believer much of studying but Mrs. French and AP Statistics changed my mind. I did well in the class not just because I did my homework but also because I began to study and pay attention in class. Most of the topics covered in first quarter are review topics but quickly around the end of first quarter you begin to learn new things, but they aren't hard once you understand the concepts.

Concepts are key. Then at around the end of the first semester you get down and dirty into what Statistics is truly about: inference. This stuff is completely new, never before seen and kind of exciting to learn because it really makes sense and stuff you can really use. Some disbelievers complain about learning things like calculus and algebra because they claim they will never use it ever again in life. Well, you can be sure to use Statistics in the real-world and it will be really advantageous for you to get credit in college whether you are going into medicine, business, finance, engineering, law, economics and many, many other areas of study. Another thing to keep in mind when inference topics roll around is to memorize your paragraphs. I remember reading AP Statistics letters last summer and every single one of them said to memorize the paragraphs, which is true, but I also found it easier to understand what the paragraphs are all about. After doing your homework on inference for a few weeks you will be able to do this very easily and thus you will definitely do well 3rd and 4th quarter.

As you finish reading these letters, again, make sure you remember three keys to doing well. Truly do your homework, pay attention in class, and study effectively. Keep the habits you learn to do well in this class because you will also be successful in college. Mrs. French is awesome because she knows who deserves the grade and who doesn't. For all the seniors taking Statistics, good luck will the college process and as a freshman in college let me tell you that everything will work out in the end and to save yourself, your parents, your teachers, and your counselor from all the stress you might put yourself through. If the college you are applying to wants you, they'll accept you. Good luck and farewell.

Sincerely,
Shakeeb Hakim

3.

Mike Noce

Dear AP Statistics Class of 2006,

Let me first of all welcome each and everyone of you to your newest FAVORITE CLASS. Okay maybe not, but hey, at least you're not in CALCULUS. As you begin this year, you are probably writing a letter to your new teacher Mrs. French, and wondering who this mystery lady is. Let me ease the suspense and your fears, because although sometimes intimidating, Mrs. French is

here for you, and to make sure of one thing: YOU PASS THE AP TEST! (And that you memorize your paragraphs, but I will go into more detail about those later.)

If you are one of those students who has never failed a test, prepare yourself, because it is almost a guarantee you will fail at least one. (Mrs. French will even tell you this herself, but she will also pray for you.) Don't worry though, the quarter projects will help your grade, hopefully. Also, Math League may sound like a nerd convention, but it is a great way to earn some extra points on your grade, as well as get you out of your after school activities for a few minutes.

If you are a senior, make sure you keep your grades up, and start your applications as soon as possible. Trust me; you will feel so much better knowing that you're done with the application process while all your friends are crying at night. Also, save your senioritis for another class, like journalism. With a little hard work you can and will earn college credit and save some money for your parents.

HOMEWORK! Although not always checked, this will make or break the year. Doing your homework will be repetitive, but will solidify the necessary information, and if you do not understand a concept fully, Mrs. French will be more than willing to explain it further in class. Also, take notes, good notes, and preferably in pen so they don't smear. Along with these two, review packets will give you the best chance for success on the tests. Do them and ask questions about them. It will pay off for the current test and all the rest of the tests afterwards. The later tests become cumulative, so learning the material as it comes is much easier than sleeping through class and attempting to learn it all at once. The earlier information is the cornerstone to the entire year, so don't think that just because you're not in Multi-variable Calculus that you can slack off and not work. It is imperative to keep on top of each chapter, and most importantly, remember what you've done.

Now for the paragraphs I alluded to earlier. At first these will seem burdensome, and monotonous, but the truth is you MUST learn them. Tape them to your forehead, or make a catchy phrase. Whatever you do, just make sure that you memorize and understand them. There are really only two that you need to know, and they are only 3 sentences each, so please learn them, I'm begging you. Also, conditions will be another must that you will have to memorize. They are all very similar, so once you get a grasp of them, it will be as easy as a two proportion z-test. (You will learn what that is later.)

Mrs. French is very straightforward, so when she tells you something is important and to write it down, do it. You WILL see it on the next test. Also, be to class on time. She has heard every excuse you will try to make up, so get there on time, or you will get a tardy. If you don't like

M&M's, you might as well get out now. Mrs. French loves to do statistical work with them, and by the end of the year, you will never want to see those candies again.

Finally, I leave you with one piece of advice. **DON'T STRESS!** This class will challenge you, and you will get frustrated, but with some hard work, and paying attention in class, you will get out alive, and you will have some fun along the way.

4.

Dear New AP Statistic Students,

Let me first congratulate you on making the decision to join the fascinating world of Statistics! This year may be long for you seniors, but hey, at least you're not in **CALCULUS**. If you are, well you are just too good to be true. Now don't think that statistics is going to be an easy ride, **IT IS HARD**. If you don't pay attention to these tips well, let's just say your GPA will suffer.

You may be thinking that this AP class is going to be better than taking Calculus or some other math, but it is not. It does take time out of your busy after-school schedule and you might just have to miss a few Wing Night's in order to get ready for tests. **YOU HAVE TO STUDY** if you want to pass this class with a somewhat decent grade. Don't slack off and think "Oh it's ok if I fail one test; the other grades will balance it out". One bad test grade could lead to a devastating report card grade, and before you know it, no more Friday night movies.

First quarter will fly by and it is much easier than the rest of the year but **PAY ATTENTION**. The concepts you learn in the first few months are crucial to the rest of the material you will learn. Never forget to **ALWAYS TAKE NOTES**, and never sleep in class. The notes that you take will help you study for tests and for the final, which is before the AP exam. If you sleep in class, well you won't be learning! Mrs. French doesn't hand you the concepts on a silver platter, but she tries her best to teach you everything you need to know in class.

Even though it's hard to believe you are almost half-way through the school year by the time winter break rolls around, don't think the worst must be over. Use winter break wisely by sleeping, or catching up on your other classes because the second half of statistics is the hardest. You will live, breathe and eat statistics. Remember to stay on task second and third quarter because if you get behind, you won't be able to catch up to the rest of the class.

By the time third quarter rolls around, **DON'T MISS CLASS**. I know you Senioritis will be kicking in after finishing your first semester, but don't let it hurt your statistics grade. I had to get my tonsils taken out in the beginning of third quarter, and was gone for almost two weeks. Missing

two weeks worth of classes is like missing a month of work. If you do end up missing class, STAY AFTER! Mrs. French is there to help you so take advantage of it!

MEMORIZE THE TEMPLATES! I know that you have no idea what I am talking about, but just do it. These templates will be on every future test and quiz. If you don't memorize the templates, you don't get a good grade on the quizzes and then, well you get the picture.

If you start to think that you do nothing but statistics at third quarter, don't get too worried. Mrs. French makes it worth your time. We do have group activities that are fun, and she tends to give out M&M's often. Fourth quarter isn't too bad, so make sure that you focus in the beginning of the year so you can BREATHE your last few months.

I know it seems overwhelming, but it really isn't. As long as you study, take notes, and memorize the paragraphs (templates), you should be fine. This was probably one of the best classes I have ever taken, and it actually relates to real life! So at 2 AM when you are trying to understand your homework, read through the textbook, and pray for candy the next day.

Good Luck!

Emily Healy

5.

Frank Huang

5/9/2005

Dear 2005-2006 AP Statistics student,

I am writing to you for the purpose of making your life in the Statistics classroom next year easier. You might have heard from a reliable source that AP Stat is easy, and that you will pass without even trying. This source was not reliable, because this class will require more effort than most of the mathematics courses you have taken before. This is not the statistics that you may have learned in your 5th grade math class, or your SAT prep course. The statistics done in this class are more involved, and demanding.

The work required for this class is also very demanding. I suggest you do the homework that is assigned every day, as it will be to your advantage. Mrs. French checks homework everyday for two points of credit. This may not seem influential, but you must also remember that there are nine weeks in a quarter. Do the math, and if you do your homework everyday, you have easily gotten full credit for around 1-2 quiz grades per quarter. This can either make or break your grade. Another advantage for doing homework in this class is that you will know what you are doing in the class, which will give you to another 1-2 good quiz grades. The homework is usually around 30 minutes to 1 hour long, except for before tests, for which she will give you review packets that will help you

prepare the entire week for the test. The homework is pretty self explanatory, and if you forget to write down your homework, Mrs. French records every assignment assigned on her schoolnotes.com account. She is the most organized teacher when it comes to updating blackboard and schoolnotes.com everyday, and if you forget anything, she also checks her emails everyday, so there should be no reason for anyone to have less than a perfect homework grade for the class.

Although I was not a senior this year, I can speak from observation when I say it does you good if you actually come to class more than fifty percent of the time. There has been no class period until after the AP exam in which we have done nothing. It is especially beneficial if you come to class the day before a test. Mrs. French will give you tips on how to approach the different kinds of questions for each chapter. This is not the class to slack off in. It is also very easy to be tardy in this class (especially when you are a senior), because if you are late one second after the bell, Mrs. French will still mark you tardy.

This class may seem easy during the first two quarters, but by the third quarter, the pace really picks up, and if you are not ready, you will fail. It is not just because the AP exam comes soon, but that the hardest topics are learned during the third quarter. It is important to be in class during those days, because you must memorize two paragraphs for Mrs. French that will be useful for you on the exam and on tests and quizzes. Everyone eventually get the paragraphs, but the sooner you memorized the paragraph, the better you will perform on the tests and quizzes. Although there seems to require a lot of patience and diligence, this class can also be very fun. Almost every week, Mrs. French utilizes M&M's to teach statistics. You will make graphs, and analyze the population of M&M's many times during class. The candy is always a wonderful treat, and Mrs. French brightens up the class herself, with her always fun personality.

Overall, AP Statistics is a good experience, and everyone will enjoy the class next year. Since most of you are seniors, I encourage you to have fun, and relax, because its almost over, but I also would like to remind you that if you slack off, this class can go from fun to very long and stressful. AP Statistics is a very demanding course, but all you have to do to succeed is to do homework, study, come to class, and eat candy.

6.

Dear Future AP Statistics Students:

So you have decided to take the Statistics route for your (most likely, except you ambitious juniors) last year of math. Congratulations!! This class is actually very simple, if you do the work! One secret about Stat is that the actual math part is really not that hard. The concepts are actually pretty easy. Well, at least they are compared to the dreaded AP Calculus, as I'm sure many of you, just like me, took this class to try to avoid. Trust me, Stat is a much better route. And the good news is that as AP Stat students, Mrs. French will give you all the skittles and M&M's you could ever want.

First of all I'm going to be perfectly honest with you. All the letters I read from former students said the same thing I'm about to say, but unfortunately for me I didn't listen. But listen to me now!!! The first two quarters of this class are really **not that hard**. It's a secret Mrs. French doesn't really want you to know... All you have to do is finish all your homework and do the few simple and easy projects she assigns. And trust me, Mrs. French will never, ever, ever forget to check the homework, so make sure you have it. This is my second year having Mrs. French and I can't stress enough how much the homework will make or break your grade. If you don't do so well on a test (or two... but hopefully not) but have done all the homework, it will be the saving grace of your grade!!! Don't fall into the trap of copying the answers for the odd questions from the back of the book. Yes, I know, it's so tempting and easy when the answers are just sitting right there. And I won't lie that sometimes the homework assignments can be rather lengthy. But if you copy the answers, it WILL catch up with you and you'll be totally lost in class. Make sure you pay attention to the notes that you'll take in class and make sure you save them for the end of the year. They will definitely come in handy for the two BIGGGG Chapter 1-9 and Chapter 11-14 tests that you will have right before your final exam, which is all right before the AP exam. But the key to success in the 1st and 2nd quarter is very easy and straightforward. **Do all your work**. Simple as that.

Now that I've told you just how easy 1st and 2nd quarter are, I have to be honest about how 3rd quarter will ruin your grade if you don't work very hard. Not to scare you, but study as hard as you can first semester to prepare yourself for the dreaded 3rd quarter. Everything that you thought you knew and understand, will all go out the window 3rd quarter. **MEMORIZE THE PARAGRAPHS!!!** I cannot stress this enough. I know right now this means nothing to you, as it did to me at the beginning of the year when I read all of the letters from past students. But the paragraphs will absolutely ruin your grade if they're not memorized perfectly. The key to third quarter is to remember: If you find yourself completely lost, or with an F, or both at some point during 3rd quarter, don't stress. It happened to all the best and brightest of us too. And don't worry, you'll have the chance to pull it up.

The good news about working so hard during 3rd quarter is that you will feel very, and I mean **very** prepared to take the AP Exam. By the day of the exam you will have taken so many practices and tests you will feel perfectly reviewed without ever cracking open your Stat book at home. And trust me, this is a very good feeling as you prepare to make your way through the 3-hour exam.

Congratulations on making it to your senior year (excluding you juniors who deserve congrats just for taking this class a year earlier than most). Your last year of high school will go by so fast and I know you will be anxious to get outa here and go on to the next big thing (college!!!). But take this year and enjoy the time that you have left. Try to avoid a serious case of senioritis and make sure that you do your work, especially in this class. But most importantly don't stress or worry too much about classes, grades, or getting into college. Just take your last year and have fun with it!! It'll be over before you know it.

So I hope I have not scared you too much. This is a great class, it just requires some effort. Yes, I know you probably took it as an easy A compared to calculus, but one thing this class is not is just an easy A!! You have to work, but it's not too horribly painful. You will find yourself having fun in this class, a shocker I know. Fun in school?? Is that possible?? But I think you will be surprised by how fun and easy this class can be and also how hard it can be, all at the same time. Remember to work hard- and most importantly have fun!!!! Good luck!!

Gabby Lomanno

6.

Dear new AP Stat students,

Run for your lives! Now! --- Not really. In honesty, this class was fine. Perhaps not as easy as I had guessed it would be, but it definitely wasn't a struggle. Similar to AP Calculus BC, the best thing you can do for yourself is PAY ATTENTION and TAKE NOTES when Mrs. French says something. I often spent time during third quarter zoning out or drawing. Although I have overall gotten high grades in Stat, there have been a few times where sitting in the back and sleeping has hit me mid-test.

The best piece of advice I can give you in regards to grades, which I know you are all neurotic about, is to turn things in on time. Mrs. French will heartlessly give you half credit on anything turned in late, even when it is a project with the same point value as a test. Stay up those extra painful three hours and finish it the night before it's due, not after. I myself had problems with this, because I am fairly forgetful concerning important things. Stemming from that--- do your homework. She checks it basically everyday, and will notice if you give her the same thing twice. I

ended up developing a habit of scrambling through the work every morning before Stat class- I don't really recommend that tactic. However, I will advise you to look for windows of opportunity to do your work DURING class (the class day it is assigned.) Often Mrs. French will even explicitly give you time for that. In that often occurring case, it will be your own fault if you sit around talking instead.

If you are taking multiple AP classes, I advise you not to brush this one off as an "easy" one. Not that you won't be able to understand the concepts, but merely that Stat will require a bit of effort each day. Even people who are intuitive at math will have problems because Statistics is not very math heavy- sleeping through calculus does not mean you can sleep through Stat. I found this out the hard way. Falling behind, something that happened to almost everybody during 3rd quarter, is not pleasant. Mrs. French does seem to live at school (I suspect she sleeps on the mound of crocheted blankets she has in the classroom), so don't feel hesitant to drop by for help. Like most AP teachers, she seems to never leave. Take advantage of that with your other classes too- all the teachers I've ever had were as pleased as punch to help out any student who wanted to learn.

Mrs. French gives hard tests- harder than the AP exam, definitely. Be thankful for this, because when you finally take a practice exam and realize you have a 3, 4, or 5 you will stop complaining! There are a few extreme things that you will be made to do- I am betting you will read other people's rants on how they had to memorize paragraphs. In actuality, there are only two clumps of multiple sentences you will have to commit to memory. You will write them so much that they will be forever burned onto your brain. You will consider putting them on your tombstone because they will become such a large part of your (AP Stat) life.

As far as senior or junior year goes in general, all I have to say is "SLEEP". Most of my friends that were sleep deprived did not usually start their homework 'til past 9. Dementia CAN be avoided. Make sure to get sleep right before the exam, above all else, even if it is at the sacrifice of more studying. The Stat exam is in the afternoon, and almost everyone, including myself (I took a 15 minute nap before checking answers), got sleepy midway through the multiple choice.

You didn't make a bad class choice. The bell curve will change your life.
Sincerely, Cheryl Foil

To next years AP Statistics students,

Hello, my name is Sergio Navarrete. I am a former AP Statistics student, and now I am a freshman at Christopher Newport University. AP Statistics is a very fun class, with a very fun teacher. It is like lunch, math, and life melded together into not only an interesting and educating class, but also fun and entertaining. I learned a lot about how companies conduct, display, and use this research to better their company. There are many reasons I liked this class; It was very entertaining, especially the teacher, and we got to eat candy and learn at the same time, and lastly many colleges offer either full credit or partial credit for a good AP exam score. (Usually 3 or higher). However you must work hard to achieve this.

Mrs. French. She is a very interesting teacher who cares about you, your grade, and your overall success in her class. She is funny, and easy to talk to, as well as flexible. She will stay after school for help, and help you “one on one” whenever possible. She is a very experienced teacher with a lot to offer, so take advantage of it. She knows a lot about how the AP test is formatted, because she actually grades the tests every year. Trust me it will help your grade. Coming after school for help was one of the best things to do before taking a big test. Mrs. French goes over all the things that are on the test, and answers any questions that you may have. That brings me to my next point.

DO THE HOMEWORK!!. Not doing homework in AP Statistics is probably my biggest regret. I worked a lot after school and AP Statistics is a class that is time demanding, so I fell behind and had to work hard at the end of the year to make up for all the slacking off in the beginning of the year. The first two quarters are easier than 3rd quarter; however you must understand all the information you learn in the beginning of the year to do well at the end. Make sure you memorize the paragraphs she gives you. These are very important, and missing one word could cost you many points. (You will know what I am talking about soon enough) Doing your homework will keep you up to date in the class, and will make tests and quizzes a lot less stressful. Just one more thing, study! Set some time apart so that you can study. Just two hours is more than enough to get good grades. Study groups, and making note cards to help you remember important terms are also good ways to study.

Finally, have fun. Enjoy what you are learning. Try to apply it to real life. Statistics is actually one of the most life relevant classes I have ever taken. I now know, and understand how to read statistical data which is displayed all over the real world. Stock market, economics, statistics on research of different products are all places where you will find that taking this class brings a

new meaning and understanding to these important worldly data. Learn to read graphs, and interpret information.

Good luck, enjoy the M&M's, and have fun.

8.

Dear New AP Statistics Student,

Wow what a year I've had in AP Statistics!

AP Statistics is one those classes where you cannot afford to miss even a couple of days because you'll get so behind. Being present in class is the most important key to success in AP Statistics. It is very difficult to be out for one or even a couple of days when you have a test the end of the week and still plan to understand and be prepared for the test.

Another important key to being successful is to always do the homework! Believe me I've been there when the homework seems too complicated and the temptation is there to copy the answers from the copy of the book. But you must fight the temptation because if you don't then will you have not only not understood the concepts but also will most likely fail the tests. In order to keep up with the weekly testing, which believe me you'll have tests every single week as the year goes on, you must learn the basic concepts! There were many times during the year when I thought I didn't do horrible on the tests and there were just a couple of questions that I didn't know, but when my tests were returned I realized how important it is to know even the smallest thing because everything is connected. Also the thing we can all love Ms. French is for that she'll make sure if the homework isn't enough incentive to learn, then she'll definitely catch you on what you know and don't know by giving the tests and taking huge amounts of points off for sometimes what seems as the smallest things.

Never shy away from asking for help! If you don't understand something and the class seems to be flying by and you feel like you are the only one doesn't understand, then make a point to stay after school. You'll see when you come after school that you aren't alone in being lost and not understanding the concepts. In the end staying after only a couple times of month might save you from failing tests and having your grade plummet. When class seems like it's too much to handle and you just want to drop out because you can't keep up, staying after will help you and give you a lot of hope. There were so many times for me when I just wanted to drop out and not have to take a huge test at the end of every week. But I realized that I had to stick in there and make sure that I succeeded in it and staying after a couple times got me on the right track to do well in the class.

Also I'm sure all the letters you read that this class gets harder and harder, but for me I thought it got easier. For one thing the staying after helped me get on the right track, but I also started getting used to the class and amount of workload. As the year goes the tests and quizzes start to be worth more and occur once and even sometimes twice a week, but even though they are longer and worth more, the individual questions are worth less. So there is more room for not knowing the specifics, but knowing the basic concepts.

Make sure you memorize those two paragraphs. In order to survive the second half of the year, you must know those paragraphs. You will have to write that word from word on almost, if not every single test that you have. Getting in the hang of things really helps if you have it right from the beginning. You will get so used to those paragraphs that you will be saying them in your sleep. That is one thing in this class that you cannot take a shortcut on.

Finally I just wanted to tell all of the AP students for the year 2005-2006, that when you think this class gets to be too much and you just want to give up, believe me you'll think the class is worth it. Not only does this class teach you statistics, but also perseverance. Once you have taken the AP test you'll feel so good about yourself because you would have accomplished something that really is difficult. Once again I want to say good luck and have a fun yet, successful year in AP Statistics.

Sincerely,
Manavi Puri

9.

Dear Future Stat Students:

Ahh, Statistics, all I did was sleep in that class and get A's. Homework, well that is more like a suggestion rather than a requirement, in fact Mrs. French doesn't even check homework. This is probably exactly what you wanted to hear but sorry to say nothing could be further from the truth. First of all sleeping will not get you A's even if you go by not studying and not paying attention in other classes. I can personally guarantee you that you WILL study if you want an A. Just remember the year starts out easy and progressively picks up pace because each following test has previous material on it.

As the material goes everything is cumulative. A solid understanding of the early material will help make everything in the 3rd quarter easier. In 3rd quarter (this topic will be hit by every single letter written) you encounter a plethora of material all that is closely related. When Mrs. French says she wants to see specific words she means it. I can recall the amount of -10s on quizzes and tests for one misplaced word. Mrs. French is very strict on grading these quizzes to be

careful about what you leave off; you'll soon be suffering from your laziness. The homework given is plentiful but always to the subject. Not like some classes, where homework does not hurt your grade or is unimportant all of the statistics homework is relevant and a large chunk of your grade. Although homework is just two points each it quickly adds up and soon your grade will be in the sewer from just a few missed homeworks. Don't count on not doing your homework because of a test, because sure enough as you turn in your test there will be Mrs. French asking to check your homework.

As mentioned before the material is cumulative so it is in your best interest to understand what is learned. Ask Questions. Mrs. French is extremely helpful and will go over just about any question you have until it is crystal clear. To help understand the concepts better Mrs. French will often pass out m&m's and also leaves them for the AP exam.

The most important subject covered in the third quarter is called inference testing. This is where doing everything EXACT is a necessity. There is no doubt that after a couple of tests you will become furious and frustrated with Mrs. French. You may even remember that you get to write a letter and may even become excited that you get to tell everyone about your awful experiences. I was this person, I couldn't wait to voice my opinions about how angry I was but by the end of 3rd and the beginning of 4th quarter you lose all anger and realize that Mrs. French was preparing you for the AP test. Honestly I believe her whole curriculum to be one of if not the best in the school. As for the AP exams, unlike other classes, these topics are no surprise and all the tests have prepared you for them. The year's workload suddenly falls out after the AP exam and a toy box is in place under the paper collection table. You are free to play puzzles and games as long as you complete your project, that this year was 2340 points.

Although the tests were rough at sometimes and the work was plentiful I look back and see what the ultimate goal of AP stat was, to pass the AP exam with a solid understanding of statistics. I believe that statistics has been one of the courses in my life that instead of just getting a grade I received knowledge and, from one year from now remember everything I did.

NOTE: It should be known that this letter was for a grade, which might influence what was said in other papers. (But not mine) This is called a confounding variable, you'll learn about it next year in AP Statistics.

I am 95% confident that the mean number of students reading this paper will be in AP Statistics next year. HAVE FUN,

Matthew Bocknek

10.

Dear 2006 AP Statistics Students,

I am here to give you the key to success. I hold the secrets to help you pass the AP exam and to receive an A from Mrs. French, the meticulous grader she is. AP Statistics is all about memorization and analyzation. All you need is your calculator, no tedious math is required. Beware of the challenge you are about to take.

PAY ATTENTION TO DETAIL. When told to memorize a phrase or a paragraph, memorize it verbatim, and on the tests write it down verbatim or else Mrs. French will be glad to mark cover your paper with red ink. You must include all steps and show all your work if you want full credit. Test grades make up the majority of your quarter grades therefore, you can't afford to get too many bad grades. I suggest getting A's on all of them and you should be okay. Don't take shortcuts and don't cut corners, they will only lead you in the wrong direction.

DO ALL OF YOUR HOMEWORK. I really hate having to tell you this but yes, there is homework every night no matter what. Rain, snow, hurricane, student holiday, etc. you are expected to keep on schedule. The homework will prepare you for the tests because the test questions are similar to the homework questions. It is an easy two points that augment over time. (Hint: odd answers are in the back of the book).

DO NOT FALL BEHIND, I REPEAT DO NOT FALL BEHIND. Keep up with all the work, take all of the notes, and don't skip too many classes. **BEWARE OF SENOIRITIS**, it is a very contagious and catastrophic disease or virus, whatever it may be, just watch out, I warn you in advance. The chapters are all in sequence. If you miss part of one chapter you will be lost in the next and you will just keep getting weighed down trying to catch up.

REVIEW, REVIEW, REVIEW. Before each test you must prepare. A good strategy would be to review all the homework and notes from the chapter and always do the study guides given before the test if given. The test is practically identical to the study guides.

PARTICIPATE. Raise your hand in class and ask questions. Always ask Mrs. French to do an example on the overhead. Ask if the whole class can do problems on the whiteboards. I found that very helpful. During group work, pick a smart partner, they always hold the right answer and if you bother Mrs. French enough she will give you the right answer.

SECRETS (shh). Mrs. French is always on her computer. She sits by it every night and waits for someone to e-mail her a question. Beware of her singing in class, her corny jokes, and her scary hyperness, which all can be painful. Food is not allowed but if she can't see it you should be safe. Candy is located in the blue tin at the front of class. Simply wait till she is distracted to grab a

few pieces. You are only allowed out of class to go to the bathroom for 5 minutes, but the clock is always wrong in class so you can always stretch it a little bit longer. Once again these are secrets and keys to success to survive the battle ahead.

I have warned you, I have given you the secrets, and suggestions. Listen to my advice it is vital. The year is long but ends in May, so work hard and the rest of the year will all be a breeze. Good luck AP Stat students of 2006. I've had quite an interesting ride this year.

2005 Student,
Joey Mizzoni

11.

Dear future AP Statistics students,

In order to succeed in this class you will need to work hard, do your homework, study for tests, and pay attention in class. If you do all of these things, then you will earn a good grade and you will do well on the AP exam.

The most important piece of advice is to pay attention in class and take notes. This will make it easier when you are doing your homework because you will not have to figure it out from reading the book. It will also make it easier to study for tests because you will already understand the material.

During the year I did not stay after school for help or form study groups, but I did pay attention in class and I did all of my homework. I also did not read ahead in the book and I don't think that it is necessary as long as you stay up to date.

This class requires a good amount of time, but not an excessive amount. You can spend anywhere from 1 to 3 hours a week doing homework, projects, and studying. You will usually have homework after every class and most of the time it will be out of the book. You will have a quiz or test every week or two.

If you use your time wisely during class and at home, then it will not take up as much of your free time. You will have more time to use for other classes and you will get more hours of sleep.

The class will get harder as you go along. The first quarter is about average. The second quarter gets a little harder than the first. The third quarter is when the class really intensifies and will need to do your best and work your hardest. The fourth quarter so far has been slower and calmer than the others. You will take the final exam in the beginning of the fourth quarter and you will take the AP exam a week later.

During the year you will have one project in each of the first three quarters and you will have a few projects in the fourth quarter. Your grade will mostly be determined by how well you do on the quizzes and tests, but as long as you study for them then you will do fine on them. The homework grades are not worth very many points, but it is still important for you to do your homework.

The typical statistics included a review of the previous day's homework and an introduction to the new material. The class will ask any questions to the homework and they will be answered and gone over. Then you will learn the new information by taking notes from the overhead and going over the information in the book with the rest of the class. Sometimes you will have real examples of the material which may involve working with and eating candy, usually M&Ms.

If I could take the class all over again, then I would not do anything differently. Pretty much all of my strategies worked for me and they would also work for most other people. Some people spend more or less time on different areas than me. I probably spent more time doing homework than studying for quizzes and tests because if you understand the homework, then you will do fine on the tests.

A good strategy for the class is to find a classmate that you can ask questions about something you don't understand and or something that you want to clarify. This will help you to have a better understanding and stay on top of all the material. If I could try any different strategies then I would probably study more for quizzes and I would periodically review all the material that I had learned during the year so that I would not be as overwhelmed at the end of the class. If you follow these strategies and if you always work hard, then you will do well and learn a lot about statistics.

Sincerely,
Lee Bolyard

12.

Dear New AP Statistics Students,

You have just enrolled in an excellent class where you will learn a great deal. A lot of you may be thinking that this is easier than calculus so this class will be a breeze, but don't be fooled!! Statistics is DIFFERENT than Calculus, not easier, and you will receive just as much homework, learn just as much, and be just as challenged.

The first quarter is not very hard. A good portion of it is review of different things like box plots and histograms, so you might get the false impression that the entire year will be this easy. But it will get gradually harder throughout the year. Third quarter will be the most challenging, and

chances are, you will have a low grade at some point throughout this quarter. You can possibly avoid having a low grade though if you try some of the strategies that I will list below.

Make sure that you memorize everything that Mrs. French tells you to memorize!!! If she tells you that you need to memorize something word for word, she is definitely being serious and it will probably be on the next test you take. Especially memorize the two paragraphs in third quarter for complete responses. You will learn what this means later but they will appear on every test you have third quarter, and you will get no credit usually if any of it is worded incorrectly. So for the sake of your third quarter grade, make sure you memorize these as early on as you can.

Make sure that you pay attention in class!! In some classes all you need to do is read the book and you will know everything that you need to know without ever listening to the teacher. But this is not one of them. The book will give you a good overview of topics, but it doesn't have as thorough of explanations as Mrs. French will give, so you will be lost and have difficulty with your homework and tests if you don't pay attention. Besides, if you are participating in class, there is a good chance that you will be doing something where you get M&Ms.☺

If you don't know how to do something, staying after is always a good option!! Mrs. French is after school almost every day, and if you are about to have a test and need some extra help or review, she's always hear to offer assistance.

Make sure you always do your homework!! In the long run, homework isn't worth that much in this class compared to tests and quizzes. However, if you don't do it you will NOT do well on the tests and quizzes in this class. The homework is definitely necessary for understanding concepts and getting practice in to become more familiar with topics, and this is definitely a class where you can not afford to get behind or to mess up an easy grade like homework.

If you are wondering how well this class will prepare you for the AP exam in the spring, the answer is VERY well!!! Mrs. French's tests are much harder than the AP exam and will make you feel very prepared. Sometimes you may get annoyed that it feels like she grades answers to difficult, but it will make the AP test later on feel like a breeze and you will probably do very well on it.

I hope this informed you well on what you need to know to do well in this class. If you have a lazy attitude and aren't prepared to come in and put any work into this class I suggest that you drop out of it before you get in over your head. But if you are prepared to work, this is a very beneficial class that you will leave feeling like you learned a great deal, possibly even more than students who take this course in college!!

Good luck in the upcoming year,

Kristen Brock

13.

Dear Prospective AP (A is for Awesome) Students,

Let me start out by saying the AP Statistics class is a pretty *awesome* course. It may be a lot of work at times, but it's all worth it because of the candy. Yes, no joke, you really get a lot of candy throughout the year. M&Ms are a staple in the average statistic student's diet. But seriously, the class is the perfect course for those of you who enjoy concepts rather than just numb-minding formulas. Although you will unfortunately use a few formulas, be prepared to write more than plug in numbers. The course is, after all, not a "math" course.

The first quarter will lead you on to believe the course is a breeze. Appreciate the easy work and do not take it for granted. There's a little review of old stuff, but there will be mostly new stuff mixed in. Don't make the mistake of blowing off studying because although it seems easy, the quizzes and tests may come back to bite you.

The second quarter was the hardest for me personally, which is not what students from the previous year warned me about, so now I am warning you. Be prepared for some lousy test scores, because I wasn't and panicked. Don't sweat a couple of low grades, you'll bring it back up. Don't take the special problems and projects lightly because they can really help or hurt your grade, depending on your effort.

Now, I was told third quarter would be a statistic's hell, but in my opinion, it really was not that bad. Memorize the paragraphs! They are not long or complicated, and the sooner you learn them the better off you'll be. They come in handy on the AP exam too. Trust Mrs. French when she suggests how to do things, especially because most of the time they are not just suggestions. She knows her stuff! Make sure you get the complete responses down cold, and you'll be set for the quarter.

Probably the biggest piece of advice I can give is to study, study, study. You don't need to spend 5 hours every night studying, but set aside time to review topics before tests. I never used to study for math courses because my theory was that if I did my homework and listened in class, I would be set. Now, these are also helpful in statistics, but a little extra attention is needed. Remember, this is not a math course. It's just like any other college course or AP class, and studying is inherent.

Enjoy the class, especially you seniors, but don't get so caught up in all the activities of the year that you start ignoring the reason why you are in school. Relax and don't stress over the little

things. Always do your homework, even though it is only two points, because if you do the homework it will really show in your tests and quizzes. Staying after is also a big help, especially towards the end of the year when you will be bombarded by cumulative tests. FORM STUDY GROUPS! They're really helpful, especially if you can convince a smart kid to join. Always, and I mean always, copy down whatever notes or work Mrs. French does on the board or overhead. There are a few reasons why this is a good habit. First of all, most explanations in the text book are much more complicated than how Mrs. French explains concepts. So, when doing your homework, you will have Mrs. French's methods to help you understand. The next reason is that if Mrs. French have a special way of doing work, and if you show your work the same way, you'll get good grades on her tests and quizzes.

Be prepared for a fabulous mixture of fun and learning and M&Ms and some work and complete responses and no work with run on sentences!

Good Luck!

Jillian Boivin

14.

Dear Future AP Stat. Students,

Well... I hope you like m&m's!!! This year you're in for a lot of studying and hard work, but in the end you'll really feel like you've accomplished something. I've got a few tips on how to get through the year. It won't be a walk in the park, but the class is definitely worth your while. Mrs. French does a great job of preparing you for the AP exam that you'll take in May, just make sure you're willing to do the work.

Make you you're in class everyday! If you miss, you're lost for seriously like a month, even doing the make-up work... it's like impossible to teach yourself. Mrs. French is after school sometimes, but definitely take advantage of your class time with her. OH! And if Mrs. French tells you to memorize something... DO IT!!!! Seriously it'll help you out so much throughout the year. When you do, she's not doing it for her own good, you'll use it all the time. During the year make sure you do all of your homework assignments, although they're only worth two points, it does add up in the end and it's a great way to study without actually "studying".

If anyone told you that as senior year goes on classes get easier, they didn't completely lie to you but this class is definitely not one of those classes. As the year goes on and the AP test gets closer and closer, the class gets more intense. If you're one of those people that plan on not doing anything senior year and have a huge case of senioritis then this isn't the class for you. If anything, slack in your other classes and stay focused in this one. During the AP test in May, you'll really

understand why, you'll walk out thinking "hmm...that really wasn't that bad..." You'll be really thankful that you got all of your hard work out of the way in the early and middle parts of the year because after the exam, the class is pretty much over. Mrs. French relaxes a lot and you get to do projects and eat in her class!

Mrs. French is a stickler for the rules. Ladies, make sure you follow the dress code, she'll send you to the principal in a second if you don't cover up... sorry boys. Make sure you pay attention and sit in a place where you're actually going to listen to what she's saying. (Sarah Rothe and I sat in the front, seriously directly in front of her, and still had a hard time sometimes) Make sure you stay organized, keep your warm-ups separated from you're homework because she'll check those a few times a year and won't wait for you to find them all. I recommend two separate notebooks, one for homework/classwork and one for just warm-ups. You use your book for everything. When she asks you to read something, do it because sometimes she'll ask you to write down things that you learned from the reading as your homework check... those can be real tricky.

My last tip to you is to not stress about this class. Although it's a lot of work, and can be intense, have fun with it. It's your senior year for most of you and this class isn't anything to stress out about. Stay focused and don't let senioritis get the best of you and you'll do just fine. Mrs. French is a great teacher and she'll help you out the best that she can. Despite what you may think, she really wants you to do well in her class. This class is a real college atmosphere and gives you a taste of what to expect in those classes. It's a great way to prepare yourself for the years to come. Don't be deceived in the first few weeks of this class. It'll seem really easy, and things will start to build. Make sure you keep up, don't let yourself get into a mess where you can't catch back up. Other than that, have a great year and enjoy all the m&m's you'll get to eat!

Yours Truly,
Ashley Haislip