

# AP STATISTICS

## A little history:

Back around 2005, FHS decided to try a new class called Statistics. It would be a one semester course that seniors could pair up with College Writing or Speech or Computer Literacy. Mr. Keller had taught a stats course at a previous school, so he volunteered to teach this one. That first class had about a dozen students, most of which really enjoyed the course. One of those first students, after they had been in college for two years, sent an email to Mr. Keller saying how well prepared she was for statistics in college and how she even helped the other students in her college course who were struggling!

In 2008, FHS decided to bring back Statistics, but as a full year class. It was not referred to as AP Statistics. The idea was to offer students an alternative to pre-calc/trig or as an additional math class for those who had finished the rest. The school district felt this class would be very valuable to a wide variety of students, due to the fact that so many different college degrees have a statistics requirement to fulfill. The class, which consisted of ten students, immediately decided (well, Mr. Keller may have used a little persuasion) that upon completion of the class they would all take the AP exam. To make a long story short, the class worked hard, prepared well for the test, and when the scores came back, all seven of the students who stuck with the class received passing scores of 3 or 4 on their exams and each earned college credit at their respective universities! This past year, the AP Stats class has grown to 17 hard-working students; who knows where it will go from here...

## Why should you take AP Statistics?

Are you going into business, engineering, biology, medicine, or education? These and many other college programs will require you to take at least one statistics course. Why not take it now, try to get college credit, and maybe save a few bucks? If that's not enough to convince you, AP statistics will also help you develop some much-needed critical thinking skills as you analyze statistical results to make valid conclusions regarding a wide-range of real life applications.

## How is this course similar to other AP courses you've taken?

Whether you've taken AP U.S. History, AP Psychology, or any other AP course, you are probably well aware how important writing and thinking skills are in being a successful AP student. That is no different in this course. Many people have the misperception that the mathematics is really difficult in this class. While the math is tough, your graphing calculator will help you with much of it. The difficulty for some students lies in the analysis of your mathematics. What exactly is the calculator telling me? How do you take the results and make the proper conclusion – that's the challenge of AP Statistics.

## How is this course different to other AP courses?

The biggest difference between this and many AP courses is the amount of required reading. We do some reading, mostly article reviews and things like that. But, it's a math class – we do math!

### How will you earn your grade?

- Lots of quizzes – after every section, every exam review session, etc...
- Unit Tests – one or two per marking period
- Projects – about one per marking period

### Typical timeline of the course:

#### 1<sup>st</sup> Marking Period:

- Distribution of data: mean, median, mode. All that stuff you probably already know about statistics. We'll be done reviewing all of those "old" ideas a lot quicker than you'd like.
- Comparisons among data: correlation, regression, lines of best fit. You may have studied these ideas a little in Algebra II. We'll go a lot further with them.

#### 2<sup>nd</sup> Marking Period:

- Wrap up of the regression ideas that were started in the previous marking period
- Experimentation – setting up an experiment that is statistically sound

#### 3<sup>rd</sup> Marking Period:

- Probability and Random Happenings – a very close look at why things happen when they do and the ability to accurately predict when they might happen again

#### 4<sup>th</sup> Marking Period:

- Confidence Intervals & Tests of Significance – now we're getting into the "tough" stuff. These concepts are the basis for all of those opinion polls you see on TV during election years and for determining if a result would happen by chance or not.

#### 5<sup>th</sup> Marking Period:

- A continuation of the previous concepts but just going a little deeper & a little more complicated.
- We're getting closer and closer to the AP exam. So, once this is done, we turn our attention to getting ready for the test!

#### 6<sup>th</sup> Marking Period:

- Month-long review for the AP exam
- The EXAM
- Final Project

Any questions? Please talk to Mr. Keller if you're not sure about anything...should I take the class, how hard is it, what are my other math options...anything!

Students – you know where to find me

Parents – phone: 652-9955, extension: 2135 (conference period: 2:05-3:05 daily), email: tkeller@frankenmuth.k12.mi.us