

# MATHEMATICS

## ADVANCED PLACEMENT STATISTICS

“The measure of a man’s character is what he would do when no one is watching.”

### I. Course Description

This course is a non-calculus based introduction to statistics exposing students to four broad conceptual themes: **1st semester**: exploring data analysis, observing patterns and departures from patterns; planning a study, deciding what to measure and how to measure it; anticipating patterns in advance, introducing probability and simulation & sampling distributions; and **2<sup>nd</sup> semester**: statistical inference, confirming models for explanations of patterns. This class will prepare you for the Advanced Placement Exam that you will take in **May**. The course involves activities and discussions and will use the TI-84 plus calculator. In addition to the mastery of specific statistical techniques, the goal of the course is to get students to "...**think about the background of the data, the design of the study that produced the data, the possible effect of outlying observations on their conclusions, and the reasoning behind standard methods of inference.**" You will learn to express your conclusions in a clear and concise way both written and verbal.

### II. Class Expectations

Since you are in this class, you have successfully completed at least 3 years of high school math (all with at least a C). You are expected to be ready to learn, teach, and discuss statistics at a high level each and every day. I will accept nothing less than 100% effort each day. This course requires you to **spend more time** than in the past on your math work both inside and outside of class. Therefore, your expectations of me, yourself, your classmates, and this class should be very high. You should be ready to work individually, in a group, and as a class. I expect you to discover concepts through techniques and questions you will learn in this class. You will be **required** to do all of the necessary **reading prior** to and during each chapter. I expect you to use your desire to learn and succeed to explore and learn new statistical concepts **intrinsically**. You will be required to go **above and beyond** any regular college prep math class (since this is a college level class not a college prep class) and therefore set yourself up to be more successful in both mathematical and statistical areas in the future. Many professional careers require statistical analysis for use in that field. What you put into this class you will get out of it. Do all of the work, readings, and practice and you will succeed. You and only you are responsible for your grade in this class.

### III. Classroom Expectations

1. There will **always** be a warm-up/quiz assignment for you to begin the statistics class. It will take up to usually 5-15 minutes to complete. **BE READY EVERYDAY!** Once you enter the room, be prepared to work from bell to bell. The teacher will release you from the class, not the bell. If you have questions about material on the quiz, you need to see me before school, before class, etc, not as I hand out the quiz.
2. PLEASE DO NOT BRING FOOD, DRINKS, GUM, CANDY, ETC., INTO THE ROOM AT ANY TIME WITHOUT PERMISSION. YOU WILL NEVER BE ALLOWED TO CHEW GUM IN THE CLASSROOM. IF YOU BRING A DRINK, IT MUST BE IN A SEALED-TOP CONTAINER, BUT CHECK WITH ME FIRST.
3. My name is Mr. Nelson. You can answer me with a yes sir; no sir, coach or Mr. Nelson, nothing else!! I will always strive to treat you the utmost respect and I will demand it from you. **Furthermore, you will treat your fellow classmates, guests, substitutes, and the room with respect.** REMEMBER CLASS!! When someone in the class is talking, show them respect by listening attentively and not playing with something, not talking to someone else, or not doing something else. The most important person to listen to is someone who may be asking

a question, answering a question, or discussing anything in statistics or something school related. **Please do not ask for someone to repeat something due to the lack of your respect or lack of attention.**

4. You will be responsible to maintain the cleanliness of the room and any classroom property at all times. If you see someone writing on your desk or something already written on your desk, please notify me, otherwise you are responsible for the cleaning of that desk. The class will not be released until the cleanliness of the room is acceptable to the teacher and the students.

5. You will never be excused to go to any other class during our class time. **EVER!! Time is of the essence** in AP Statistics. Should you need to use the restroom please get up from your chair, take the pass, and quietly exit the room and return just as quietly. **DO NOT RAISE YOUR HAND AND ASK ME IF YOU HAVE PERMISSION TO GO TO THE BATHROOM. YOU NOW HAVE MY PERMISSION.** If you are gone for more than the required time or are other places other than the restroom, you will lose the privilege the remainder of the year. You have only one chance to do the right thing.

**6. CELL PHONES, IPODS, IPHONES, ETC, ETC, ETC, ARE NOT ALLOWED TO BE ON NOR USED DURING CLASS. IF THEY ARE, IT WILL BE CONFISCATED AND GIVEN TO SECURITY FOR RETRIEVAL PER SCHOOL POLICY! THIS IS YOUR FIRST WARNING AND NOW YOUR LAST WARNING.**

#### IV. ATTENDANCE

Being successful starts with attending class everyday. Missing quizzes, tests, and/or new material because of absences usually result in lower grades. You need to be responsible for attending class and being prepared to **actively** learn. If you are absent, you must clear the absence prior to accepting any work or giving material for the day missed. You must also email me to let me know you will not make it to class and I can forward the work to you. You are responsible to determine what you missed and responsible to make up that work. You are expected to know the material that we discussed as a class. Any unexcused absences will result in not being able to make-up any work missed. If you know you will be absent in advance, you must let me know so you can get the work and any other material. The work will be **due the day you return** or it will not be accepted. **If you are absent for a quiz, chapter test, or anything that is due, the only way to make it up and will be graded is if your parents contact me the day prior to or the morning of the day of the absence and explain your absence and their understanding that you are missing a test or work due in which the make-up is decidedly more difficult.**

#### V. TARDY POLICY

All students must be seated prior to the sound of the tardy bell. Any student not in assigned seat will be asked to stay after class and be required to do additional work whether in math or the assistance in cleaning the room. Please do not explain the reason for your tardiness. If you have a note, leave it in on my table. The school tardy policy will be enforced!

#### VI. GRADING POLICY

Percentages will be based on a weighted total of all points through the semester. All students must keep all of their work whether graded or not as to prove that the work was done. Also, if I fail to enter the correct grade in my gradebook by mistake, you must have proof that you did it. Grading scale is as follows:

##### Percentage

90-100%

80-89%

70-79%

**60-69%**

**Below 60%**

##### Letter Grade

A

B

C

**D**

**F**

Non AP Credit grades

THERE IS A TIME LIMIT AS TO WHEN YOU CAN DROP THE COURSE WITHOUT A W/F (Withdrawal Failure) AND CONSEQUENCES FOR COLLEGE ACCEPTANCE. KNOW IT AND DO NOT DESTROY YOUR COLLEGE ADMISSIONS!!!! IF YOU TRULY ARE NOT PLANNING ON SUCCEEDING AND DO NOT NEED TO GET A 3, 4, OR 5 ON THE AP STATISTICS TEST AND YOU DO NOT WANT TO READ OR WRITE MORE THAN YOU HAVE HAD TO DO IN THE PAST FOR OTHER MATH CLASSES AS WELL AS OTHER ACADEMIC CLASSES, AND YOU DO NOT NEED THIS CLASS FOR COLLEGE, I WOULD SUGGEST FINDING AN EASIER CLASS. **IDO NOT EXPECT YOU TO COMPLAIN ABOUT THE WORKLOAD!!!!**

**The topics that will be evaluated are the following:**

1. Test and quizzes (75-90%)
2. Investigations & Projects
3. Homework
4. Activities

## **VII. Course Work**

We will cover at least one section per class. **You are required to fully read each chapter prior to the beginning and during the chapter. You will have daily homework assignments that will vary in length and time.** Please prioritize your time to complete each problem. The more practice you do, the more familiar the test questions, the better your grade and the better chances to succeed on the AP exam in May. Good questioning to me uses the words what if, why, and when, not--- how do I do this problem? I will not accept any late work. Because this is an AP class (College class), the test questions are not identical questions to what we do in class but obviously cover the same concepts. **NO TWO QUESTIONS WILL LOOK ALIKE!!!!**

**Remember: Time is of essence!**

Typically we will discuss each section, practice questions, sometimes do activities to enhance the lesson and then you will be quizzed on each section and then tested on each chapter. All make-up quizzes and tests will be given prior to 7:15AM or right after school.

## **VII. EXAMINATIONS**

Expect a **timed** quiz each class that will take 5-15 minutes. Each chapter or a cumulative of chapters will be concluded by a test that will consist of **timed** multiple choice questions and **timed** free response questions. Each test will be minimum of 100 points. The quizzes will vary in points from 10 to 25 points. Projects will be 100 to 300 points each. Various other activities will range from 25 to 100 points. The Final exam will be 250 points. **Only** the first semester, will I drop one chapter exam as long as final exam score is greater than that one chapter test. If you miss a test, you will be given a zero, until the final exam is completed and graded. That zero will be the one test dropped.

## **VIII. AP Statistics**

Please take this statistics course seriously each and every day from August until June. **Stay on task in class, take good notes, and study every night** even though we do not have this class every day. Use your classmates, myself, your textbook, **the internet**, and any other resource at your disposal to be successful. Do not fall behind. We have to complete 7 chapters in the first semester in 18 weeks. That includes quizzes, review, chapter tests and/or midterm, and the final exam. In addition, you will have out-of-class projects assigned during that time. Stay ahead! The second semester will consist of 5 chapters but are more in depth and challenging and require more thought and practice. We will have between 2 to 4 weeks to practice and prepare for the AP Exam plus additional work during the spring break that covers AP practice questions.

## **IX. REQUIRED MATERIALS FOR ADVANCED PLACEMENT STATISTICS EVERYDAY**

1. Separate statistics notebook—**Binder to place quizzes, tests, special problems and all AP questions.--- Spiral notebook for note-taking & class work.**
2. Pencil and pen
3. TI-84 Plus Calculator (issued from the library with a calculator contract). If you have your own a TI-83, 84 or 89 calculator, please bring it **everyday**. I do **not** lend out any calculators.

## **X. Books**

You will be issued **The Practice of Statistics 6<sup>th</sup> Edition**, by Starnes, Yates, and Moore. The book remains at home at all times. I have additional statistics books that may be used as resources for further understanding of the material. You are responsible and it is encouraged that you use all possible resources to be successful as they may explain items in a way you may understand. Also, be prepared to utilize the internet as a great resource of information.

## **XI. The AP Statistics Exam**

The AP Statistics Exam is scheduled for the **afternoon** of Friday May 15, 2020. The cost is approximately \$94 (START SAVING). The registration ends at the end of October, yes October. Did I mention end of October? If you do not take the AP Exam, you will be required to do additional work in the second semester. A qualifying score is a 3 on a scale of 1 to 5. The exam is three hours long and consists of two equally weighted sections:

**Section 1:** Multiple choice questions testing proficiency in a wide variety of topics (40 questions)

**Section 2:** A free-response section requiring the student to answer five open-ended questions and to complete an investigative task involving more extended reasoning. Each student is expected to bring to the exam a graphing calculator with statistical capabilities. Powerbooks and portable computers, pocket organizers, and devices with typewrite-style (QWERTY) keyboards, electronic writing pads, or pen input devices are **not** allowed.

**INTEGRITY**  
**ADVANCED PLACEMENT STATISTICS**

The Advanced Placement Statistics course is a college level class, not a college prep class, therefore students must set and meet an even higher set of standards of academic conduct at all times. **Students who plagiarize, lie, cheat or who willfully observe or assist in this conduct and do not report it, will not get a zero on the assignment but the negative value (in other words, if assignment is 40 points and are caught or assist in cheating it will be -40 points on their grade).**

I, (print) \_\_\_\_\_, understand and accept the above code in Advanced Placement Statistics.

**Signature** \_\_\_\_\_

Please fill out the information below.

I have read, understand, and acknowledge all of the conditions of the Advanced Placement Statistics Expectations.

**Name (print)** \_\_\_\_\_

**Name (sign)** \_\_\_\_\_ **Date** \_\_\_\_\_

<b>Math Class</b>	<b>Teacher</b>	<b>June Grade</b>
<b>9<sup>th</sup></b> _____	_____	_____
<b>10<sup>th</sup></b> _____	_____	_____
<b>11<sup>th</sup></b> _____	_____	_____

**Why are you taking this class?**

**What are your personal goals and how are you going to achieve those goals?**

**Are you truly committed to be a student of statistics and to be successful?**

**What is your desired major in college? What is your desired career profession?**

**Tell me something about you that I need to know that is either interesting or something to get to know you better.**

## Note to Parents/Guardians

It is an honor to have your son/daughter in my Advanced Placement Statistics class. This class will challenge them with a heavy workload and develop them into competent interpreters and investigators of statistical data and information. Your child will conduct major projects working individually and with other students. They will have daily reading and homework from the textbook. They will undertake more writing and explanation than in any other math class they have taken. I stress that they will need your support as well as mine to be successful both in the class and on the AP Exam in May. Please feel free to call me at school at **894-5750 ext. 6661** or email me at [hnelson@murrieta.k12.ca.us](mailto:hnelson@murrieta.k12.ca.us) if there are any questions or concerns you may have. Email will get a much quicker response.

Mr. Nelson  
AP Statistics Teacher  
Math Department Lead Teacher  
MVUSD Math Advisory Committee Member

Please fill out the information below.

I have read, understand, and acknowledge all of the conditions of the Advanced Placement Statistics Syllabus.

**Print Student's Name** \_\_\_\_\_

**Parent/Guardian (Print)** \_\_\_\_\_

**Parent/Guardian (Sign)** \_\_\_\_\_

**Home Phone** \_\_\_\_\_

**Work or Cell phone** \_\_\_\_\_

**Parent Email Address (print clearly)** \_\_\_\_\_