# 2023-2024 Statistics Procedures <br> Plano West Statistics Team 

Puja Garg<br>puja.garg@pisd.edu

Nicole Mayer<br>nicole.mayer@pisd.edu

Olivia Weinberg<br>olivia.weinberg@pisd.edu

Welcome to Statistics! Mrs. Garg, Mrs. Mayer and Ms. Weinberg are excited you have chosen to take Statistics! The following information will help us get started.

Daily Grades (40\%) Homework is assigned after most lessons. Some assignments are graded, others are not. Assume all homework is graded since they will be randomly graded from your packet. Doing homework consistently is ESSENTIAL for mastering the topics you will be learning. You are responsible for checking your daily work using keys provided by your teacher.

Quizzes: We will have periodic quizzes over each topic. These will generally be administered in groups. Quizzes count double in the Daily Work Category.

Tests (60\%): Each unit will conclude with a unit test. Test questions are primarily focused on topics in the unit; however, knowledge and skills from prior units may be needed to solve some problems. If you have an unexcused absence on test day, it will result in a zero. You will be able to take the retest in order to bring up your grade from the $0 \%$ to a maximum of an $80 \%$.

Retests: In order to be eligible to take the retest, you will have to pass (minimum of 70\%) a My Math Lab assignment in order to be eligible to take the retest. If you do not pass them My Math Lab assignment, then you will be ineligible for the retest. The MML assignments are generally open for several days for students to complete on their own time.

Averages: Your average for each grading period is comprised of 60\% major grades (tests) and 40\% daily work. Your semester grade is based on your two nine-week grades ( $40 \%$ each) and your semester exam grade (20\%).

Digital Course Tools and Resources: Login information will be provided for all of the following.

- Google Classroom - PowerPoints, notes, homework, and additional resources will all be available through your teacher's unique Google Classroom. You must join your instructor's GC for your specific class period.
- My Math Lab - Additional online practice and will be required for retesting
- TI-84 Calculator or Emulator - We will periodically use TI-84 (or equivalent) graphing calculators to solve problems. If you do not have a graphing calculator, there are numerous online graphing calculator emulators. In addition, you can check out a graphing calculator from the school (ask your teacher for a calculator check-out form)
- Online Textbook - "Stats in Your World" Fifth Ed. is available online. Your teacher will share how to access. Hard copies of textbooks will not be issued. Quick access via webdesk.pisd.edu

Tutoring: Each teacher will have regularly scheduled tutorial times every week during which you can ask questions about statistics concepts and assignments. You are encouraged to primarily contact your teacher when you need assistance; however, you can also contact one of the other Statistics teachers during their scheduled tutorial times. The tutorial schedule will be posted in Google Classroom.

## Statistics Course Description

The Course: Statistics is the study of variability and how that variability allows you to make predictions and decisions. This course will be unlike any other "math" course you have ever taken math. Why? Math is not the focus of this course. We will do some "math" in the form of calculating probabilities, solving for sample size or introducing concepts such as standard deviation. However, computation in and of itself is not the focus of this course. The focus of this course is concepts, problem solving, statistical reasoning as well as written and verbal communication.

What will we do in class? There will be days where we introduce topics and take notes, days where we do activities to undercover the nature of statistics, and other days where we take assessments. This is an activitybased course. We want you to learn by doing, not just by listening. We will collect data. We will talk about the correct way to gather data. We will analyze the data.

What do I need to be successful in this course? Mathematically? Not much. The toughest algebraic problem you need to solve in this course is similar to this:

$$
.025=1.96 \sqrt{\frac{.36(.64)}{n}}
$$

If you can handle that, your next priority is the memorization of a large number of terms, symbols and definitions. This course is focused on large conceptual ideas. We also focus on how to communicate our understanding, both verbally and in writing. We do a large amount of writing in this course in order to summarize our findings and decisions.

What should I do when I'm done? Upon successful completion of this course you would be prepared to take a university-level, Introduction to Statistics course. The university course would not be a repeat of this one as it would go much deeper into each topic and cover more topics.

Can I take the AP Statistics Test in May? Anyone can sign up for the AP Statistics test if you want to pay the fee, but it is not recommended. This course is in no way designed to completely prepare you for the AP Statistics test. We will not cover all the topics the test requires. The AP course is also much more rigorous than this course, and the depth and rigor of the AP course is what truly prepares students for the AP test. If you desire to take the AP Statistics test, you should enroll in AP Statistics quickly.

## Topics Covered:

$1^{\text {st }}$ Semester:

- Representing Data Graphically and Numerically
- Probability
- Experimental Design
$2^{\text {nd }}$ Semester:
- Sampling Design
- Binomial and Normal Distributions
- 1-Sample Inferences (Confidence Intervals and Hypothesis Testing) with Proportions
- 1-Sample Inferences (Confidence Intervals and Hypothesis Testing) with Means
- 2-Sample Inferences (Confidence Intervals and Hypothesis Testing) with Proportions
- 2-Sample Inferences (Confidence Intervals and Hypothesis Testing) with Means
- Linear Regression

