

PROVIDENCE CAREER & TECHNICAL ACADEMY

Mathematics: Statistics

Instructor Name: Mr. Spencer Foote

Time Frame: 2021 – 2022

Email: spencer.foote@ppsd.org

School Phone Number: (401) 456 – 9136

Course Description

Statistics is a mathematics course that follows Algebra I, Geometry, and Algebra II. The course allows students to gain an introductory understanding of Data, Variables, curve fitting, Observational and Experimental studies, Randomness and Probabilities, and making inferences about data collected. These skills will be useful during any continuing education program, whether it is in college or a technical field.

By taking Statistics, students should solidify and increase mathematical knowledge and skills at and above the level of Algebra II or its equivalent. They should also deepen and enrich the ways they think about math as well as develop the real applications of math across disciplines and in practical situations.

Common Core Standards Addressed:

- S – ID: Interpreting Categorical and Quantitative Data
- S – IC: Making Inferences and Justifying Conclusions
- S – CP: Conditional Probability and the Rules of Probability
- S – MD: Using Probability to Make Decisions

Required Textbooks, Reading and Supplementary Materials:

- Pearson Stats in Your World 3rd edition and online resources mymathlabforschools.com
- www.khanacademy.com

Assignment and Examination Schedule:

Semester 1	Semester 2
<p>Unit 1: Exploring an dUnderstanding Data</p> <ul style="list-style-type: none">● Stats Starts Here● Categorical Data● Quantitative Data● What are Normal Circumstances● Data models● Standards Deviation● z-Scores <p>Unit 2: Exploring Relationships between Variables</p> <ul style="list-style-type: none">● Scatterplots● Associations● Correlation Vs Causation● Lurking Variables● Models● Residuals● Regression Line● Least Squares	<p>Unit 3: Gathering Data</p> <ul style="list-style-type: none">● Population● Sample● Bias● Randomization● Sample Types● Types of Studies● Study Designs <p>Unit 4: Randomness and Probability</p> <ul style="list-style-type: none">● Random Phenomenon● Law of Large Numbers● Probability● Combinations and Permutations● Rules of probabilities● Probability Models <p>Unit 5: From Data at Hand to the World</p> <ul style="list-style-type: none">● Confidence Intervals● Inferences

Grading Policy

We encourage all students to come to class prepared every day, to participate in all learning activities, and to do their homework. In an effort to measure students' true mastery of the course material, assessments will be used to calculate the final grades of all students. Assessments can include unit tests, quizzes, projects, presentations, midterms, and final exams.

- **All students will have an opportunity to retake the assessment for a better grade, after additional review and preparation. Any student who scores less than 60% on any classroom assessment will be required to complete assigned review assignments and retake the assessment to demonstrate mastery of the material.**

Grades will be weighted as follows:	Summative Assessments*	50 %
	Formative Assessments *	10 %
	Independent Work**	40 %

*Summative Assessments include: quizzes, tests, exams, projects, and presentations.

**Formative and Independent Work include: do now, quizzes, class work & homework.

Due to the possible changes in schedule and calendar because of COVID-19, these grading breakdowns may be subject to change. I will notify you if there will be change in grading policy.

Credit for PSAT / SAT:

Earning an **EXCEEDING BENCHMARK** score on the PSAT / SAT will earn 8 points added to your **FINAL AVERAGE**.

Earning a **MET / AT BENCHMARK** score on the PSAT / SAT will earn 5 points added to your **FINAL AVERAGE**.

Academic Integrity:

Students are expected to submit their own, original work. If a student is talking during a test, he or she will be expected to finish the test on their own after school. If two students turn in the same work, both will be expected to re-submit a new copy of the work.

Prior to RTII Plan:

1. The math department shall identify on a monthly basis any student who has frequent absences, several missed assignments, and lack of productivity within the classroom.
2. Upon identifying a student with needs a meeting shall be made with the student, guidance, and the teacher of record to evaluate the student's lack of performance when attending math. This meeting will allow the student and instructor to produce a comprehensive plan with the help of a guidance counselor to get the student to the appropriate performance level. This gives the student the opportunity to be a part of his or her education and redirection of their education.
3. If the student does not comply with the agreement within 2 weeks, a representative from the math department will contact the guidance department to make an appointment for a second conference including the parent to discuss any issues or concerns about their child.
4. If student performance continues to decline the student will be referred to RTII (see below for RTI plan)

PCTA Math RTII Plan:

1. The math department will meet once a month to discuss any potential students who are in the "at risk" category. The "at risk" category is defined as any student missing more than 10 days in one quarter, also any student who fails an assessment from the curriculum.
 - a. Students whose **Star Math** is Red (Urgent Intervention), Yellow (Intervention) and Blue (On Watch) will use **Khan Academy** at home. RTII Identification Students will be monitored using STAR. Additionally, Students in Red or with a 62 class average or below will be encouraged to enroll in the afternoon afterschool program until achieving Blue in Star and a 63 or above class average.
2. Once any "at risk" students have been identified an EWS form shall be forwarded to guidance and special education. The form will be filed permanently in the math department.
3. The student will be enrolled in weekly after-school tutoring to help provide the student additional support.
4. Check-ins with the student's progress and the teacher of record will be monitored.

5. A meeting shall be scheduled with the RTII team to discuss further actions to create a comprehensive plan for the student's to succeed.