Introduction to Statistics Syllabus

Instructor: Mrs. Gomez
Email: Canvas inbox
Live Class Time: Tuesday & Thursday, 2 pm CST
Teacher Talk: Thursday, 3-3:30 pm CST

Course Description: This Intro to Statistics course is developed for the "nonmathematical" student. This class will focus on statistical concepts and reasoning over mathematical formulations. The goals of this class are to understand how data are produced, organized, and interpreted.

Content/Topics of Study:

Part I Producing Data	Part II Organizing Data	Part III Probability	Part IV Inference
Polls, Surveys, Simple random samples, Stratified random samples, Observational studies vs Experiments, Data ethics, Sampling errors	Pie charts, Bar graphs, Pictograms, Histograms, Stem plots, Five number survey, Boxplots, Normal distributions, Density curves, Correlation	Probability and odds related to unknown numbers, such as the parameter of a population	Confidence intervals, Statistical significance, Chi square test, Two way table, Simpson's paradox

Course Textbook:

Required: How to Lie with Statistics
The primary textbook used in class and **not** required for students to purchase: Moore, David S. and William I. Notz. *Statistics Concepts and Controversies*, 10 ed., Macmillan Learning. 2020. This class will contain a variety of supplementary materials from various sources.

Student Expectations:

▶ ACADEMIC INTEGRITY: Each student should strive to do their best work. Cheating and plagiarizing are taken very seriously. For the first offense, the student receives a 0 for the assignment and completes an academic integrity assignment. If there is a repeat offense, the student fails the class.

▶ ASK QUESTIONS: There is a Russian proverb often used by President Regan that is a good principle to apply: "Trust but verify." While it is obvious that you should not

believe everything that you read on the internet, you should be skeptical of any new information: question it, research it, and find the truth for yourself.

▶ DUE DATES: FreedomProject Academy (FPA) has strict due dates with details found in the FPA Parent/Student Handbook. Here is an excerpt: *"Other than acts of nature, student illness, technology problems, and family emergencies, no exceptions will be made to established due dates. Parents should notify the teacher about student illness, technology problems, or family emergencies either by phone, Canvas message, or email prior to the deadline for any assignment to receive an extension for due dates."*

▶ PARTICIPATION: Due to the nature of this class and the goal of developing statistical thinking, participation will be invaluable. Students are expected and encouraged to voice their thoughts and opinions. This class is an open area for discussion and uses the classical approach of questioning to arrive at the truth.

▶ POSITIVE ATTITUDE: Your attitude can make a big difference in your life and others around you. Be positive, set goals, and determine for yourself to succeed. You reap what you sow. If you put hard work in, then you will be successful.

▶ SHOW UP FOR CLASS ON TIME: It is expected that the parent will notify the teacher in an event that their student cannot attend live class. The student is expected to watch the class recordings for any missed lessons. If entering class late, be sure to watch the recording for anything that may have been missed in the beginning. Because participation is so important to learning, strive for perfect attendance.

Grading

Class grade breakdown:

Participation	10%
Class Notes	15%
Assignments/Projects	40%
Quizzes	15%
Tests	20%

The three lowest scores will be dropped each semester. This will not include tests or any failed assignments due to academic dishonesty.

This is the FPA grading scale that will be used in this class.

Letter	Percent
A+	97-100
A	93-96
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	65-66