Course Syllabus
AP Statistics Summer 2021

Objective: Statistics studies the occurrence of patterns in data over time to allow predictions of the value of that data in the future.

Prerequisites: Algebra 2/ Trigonometry

Instructor Contact Information:

Dr. Larry McMahan   larry.mcmahan@fremontstem.com

Website:
All course materials (waiver, syllabi, etc.) will be posted on the course website under "Statistics at www.fremontstem.org. In addition, a copy of the textbook, and all quizzes and other course materials will be available in the Google Classroom (classroom.google.com) for the class.

Class Times:
M W F 8:00 – 9:30 PM, Starting June 21. 17 Sessions. We will skip either 7/2 or 7/5 for holiday, Students' choice.

Assistance:
Students may email the instructor for help on difficult problems.

Required Materials:
- Notebook for taking notes
- Folder for handouts, worksheets, etc.
- Graphing Calculator (Note: you will need it not so much for the graphing ability, but for the statistical calculations and apps on the calculator)
- Pencils, erasers, etc.

Books and Course Material: This course will use Introduction to Statistics and Data Analysis, by Peck, Olsen, and Devore. A pdf of the textbook will be available in the Google classroom for the class.

Homework: There will be regular homework assignments, and they are optional. However, due to the heavily technical nature of the class, it is to the students' advantage to do all of the homework assignments. Access to the solutions will be provided.

Tentative Nature of the Syllabus: The contents of this syllabus and attached schedule are tentative in nature and may be subject to change or revision. The instructor holds the right to make changes to the schedule and/or organization of the class as necessary. Students and parents will be identified of

any changes via email. In particular, different teachers teach material in a different order. Material in this class will be rearranged to ensure we cover material as it is seen in the high school classroom.

Special Accommodations: If your student requires special accommodations, please notify the instructor as soon as possible.

Tentative Schedule

Dates	Topic
6 /21	The Role of Statistics and the Data Analysis Process
6/23	Collecting Data Sensibly (unintended bias)
6/25 – 6/28	Graphical Methods for Describing Data
6/30	Numerical Methods for Describing Data
7/2 or 7/5	Summarizing Bivariat Data
7/7	Probability
7/9	Random Variables and Probability Distribution
7/12	Sampling Variability and Sampling Distribution
7/14	Estimating Using a Single Sample
7/16	Hypothesis Testing Using a Single Sample
7/19	Comparing Two Populations or Treatments
7/21	Analysis of Categorical Data / Goodness of Fit Test
7/23	Simple Linear Regression and Correlation: Inrferential Methods
7/26	Multiple Regression Analysis (Not on AP Test)
7/28	Analysis of Variance
7/30	Nonparametric (Distribution Free) Statistical Methods

Note: Lecture and lab days are subject to change if unexpected circumstances arise.