

Statistics and Probability 2019-2020

Mr. Belter - Room 205

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Overview of Statistics/Probability

Statistics is the science of learning from data. Data are not just numbers, but they are numbers with a context. Using data effectively is a large and growing part of most professions. By the end of the course, you will have a solid understanding of the basics of statistics and probability. This entails material such as studying data types, methods of gathering data, ways to model data, ways to interpret data, how to conduct experiments, and basic probability.

Essential Learning Outcomes Students should be able to state **I CAN ...**

1. Analyze categorical data.
2. *Critically* read and analyze graphical interpretations.
3. Display quantitative data with various graphical methods.
4. Describe the overall pattern or shape of distributions.
5. Describe quantitative data numerically.
6. Describe locations within a distribution using z-scores and percentiles.
7. Use the 68-95-99.7 rule to estimate areas in a Normal distribution.
8. Analyze scatterplots and describe overall trends.
9. Use regression lines to predict future values.
10. Create a simple random sample without any bias.
11. Differentiate between observational studies and experiments.
12. Evaluate whether a statistical study has been carried out in an ethical manner.
13. Interpret probability as a long-run relative frequency.
14. Calculate probabilities of events occurring in various scenarios.

Classroom Rules and Expectations

1. Notebook(s), textbook, Chromebook. Pen or pencil (preferably pencil), folder, and calculator will be brought to class on time. (i.e. Come to class prepared)
2. Books must be covered at all times.
3. You must be in your seat when the bell rings and remain seated until the bell rings.
4. Food or drinks, other than water, should not be brought to class. Gum is allowed provided it is not a distraction to others.
5. Cell phones are only allowed with teacher permission.
6. Show respect to classmates and myself throughout the entire class period. This means there will be no unnecessary talking during the class period.
7. Show up to class prepared and willing to be an active learner. This means participating in class discussions, whether it be by leading discussions or being an active listener.
- 8. Do your own work. Cheating will result in no credit for that assessment.**
9. If you don't understand the material, make efforts to receive help. Whether it be asking questions during the class period or receiving help outside the class period.

Supply List

1. Scientific calculator with trigonometric functions (sin, cos, and tan). Calculator with graphing capabilities may be useful at times but not required
2. Notebook(s)
3. Pen or Pencil (preferably pencil)
4. Folder

Grading System

Quarter grades will be determined as follows:

15%	-- Homework/In-class assignments
25%	-- Formative Assessments (Quizzes)
60%	-- Summative Assessments (Unit Test)

Semester grades will be determined as follows:

42.5%	-- 1 st Quarter / 3 rd Quarter
42.5%	-- 2 nd Quarter / 4 th Quarter
15%	-- Semester Exam

There is a high likelihood of working on projects throughout this course. These scores will likely fall under the summative assessment (test) category, but may also fall under the formative assessment (quiz) category as well.

Students may drop their lowest quiz score each semester. Extra credit will be available at certain times *throughout* the course. This is at my discretion. In other words, do not ask for extra credit on the final week of the semester. Take advantage of it when it comes up throughout the course.

Grading Scale

93-100	A	80-82	B-	68-69	D+
90-92	A-	77-79	C+	66-67	D
87-89	B+	73-76	C	65	D-
83-86	B	70-72	C-	0-64	F

Additional Help

Students who are struggling or want extra help should talk to me as often as possible. I will be available before or after school by appointment. Throughout the school day you can get help during Advisory, 4th hour, 5th hour, or during lunch. Please try to let me know beforehand if you plan on stopping by to ensure that I will be in my room. *Never be afraid to ask for help!*

Retake Policy

Students who score below 80% on a summative assessment will be allowed to retake the assessment within the following parameters:

- Students must complete a review assignment and then have a teacher-student conference to ensure the student understands the material.
- All retakes must be completed within one week.
- Retakes can only be taken one time for the same assessment.
- The highest score on a retake will be 80% (the highest of the two scores will be recorded).

Students who score 80% or above will be allowed to retake only one summative assessment per semester using the same parameters as above with 90% being the highest score possible.

Parents please call or email if you have any questions or your child needs additional help. Please *sign below* to signify that you have read and understand the policies in place for my classroom.

Student name (print please)_____

Student Signature_____

Parent(s) name (print please)_____

Parent Signature_____

Date_____