

Tech High School

General Course Information:

Instructor: John Bragelman

Room: M-3

Cell Phone Number: 678-777-9016

Email: jbragelman@techhighschool.org

Office Hours: Tuesday, Wednesday, and Thursday 3:20 – 4:00

Planning Period: 2nd Period

Textbook: Understandable Statistics, Brase & Brase 2006

Prerequisites: Students are required to have at least a passing grade in Algebra I & II, and Geometry to take this course. Statistics requires mastery of a number of fundamental, algebraic concepts.

*Appointments can be made for meeting with the instructor on a case by case basis, after school on Mondays, Tuesdays, Thursdays, or Fridays.

Course Objectives (my goals):

I, the instructor, will approach probability and statistics through real world examples, utilizing data and events common and meaningful to the students including current events, social issues, and culturally relevant topics.

I will equip students with the tools necessary to understand and apply statistical techniques to data and develop meaningful conclusions from the outcomes.

I will guide students to the mastery of probability and its relationship to real-world events.

Now in your senior year, my teaching methodology will be a blend of high school and college in order to prepare you for undergraduate mathematics courses.

Course Requirements (what I expect of you):

1. Each student is expected to be present and on time for class each day.
2. Each student is expected to come to class well prepared, having appropriate materials, including textbook, notebook, paper, pen/pencil, and calculator. (Graphing calculators are provided for many in-class activities. However, students should have at least a scientific calculator for home use.)
3. Students are both encouraged and required to demonstrate a serious attitude toward school both in the classroom and out. Each student is expected to work to the best of his/her ability, and demonstrate integrity in their work. All students are expected to adhere to the rigorous academic and disciplinary standards of Tech High.
4. Students are to show respect towards each other, as well as the Instructor at **all** times. Behavior that violates Tech High School's policies will result in disciplinary action being taken.
5. Students are expected to complete **all** assignments. However, it is to be noted that the instructor will grade a subset of these assignments.
6. Each student is expected to maintain a class notebook. This notebook should be a hard-back, three ring binder with pockets. It should be divided into the following sections: title page, course syllabus, notes, classwork/homework, tests/quizzes. Notebook checks will occur at regular intervals, and are considered quizzes. (Objectives may be written with class notes.)
7. The teacher (not the bell) will dismiss students.
8. Cell phones are not permitted in the classroom mandated by Tech High regulations. Any cell phone usage in class will result in an automatic zero for the day's classwork grade.

9. **Every** student is required to research and present an assigned mathematical topic. This project will require students to write a research paper, and make a project board. Further guidelines will be given for this project.

Homework Policy – I believe homework is essential for student success in mathematics. I also believe that homework is for the benefit of the **student**. Therefore, students should expect homework every night. A student should read the textbook and class notes before working on home assignments. The successful student is one who devotes regular time and effort to working on the assigned problems and course material each night. Each assignment should be done to the best of your ability. Late homework will not be accepted. **IT IS YOUR RESPONSIBILITY TO TURN IN HOMEWORK WHEN YOU ARE ABSENT!!!**

Absences – Students are encouraged to partner with other classmates to study and get class notes and assignments when you miss a class. **ABSENCES DO NOT EXCUSE YOU FROM MISSED ASSIGNMENTS.**

General Outline of Content following the QCC Standards (what I will teach):

The following is an outline of the topics covered in this course and the order in which they will be covered:

- Analyze data sets using graphs and tables, identify trends in the data graphically, and compute measures of central tendency for data sets.
- Distinguish between samples and populations, design and administer surveys and polls, and understand the concept of randomness when applied to sampling.
- Collect and analyze data using various experimental methods and determine the outcomes.
- Analyze bivariate data represented graphically using correlation coefficients least squares goodness of fit.
- Calculate probabilities of different events, compute expectancies and probable outcomes, and utilize Law of Large Numbers to explore theoretical probability.
- Utilize student-generated data to explore probability in real-world instances, simulating events and solutions to problems.
- Distinguish between discrete and continuous distributions, apply the Central Limit Theorem to these distributions, and develop estimates for statistical parameters associated with these distributions.
- Construct confidence intervals and box plots to analyze data and test hypotheses.

Course Content Evaluation:

Classwork	20%
Homework:	20%
Work Ethic :	10%
Quizzes:	10%
Tests / Projects:	30%
Mid-Term / Final Exam:	<u>10%</u>
Total:	100%

Grading Scale:

A	90% - 100%
B	80% - 89%
C	70 – 79%
F	0 – 69%

Extra Credit:

Extra credit is available to students. Students are allowed to complete a maximum of two book reports by the end of the semester comprising 10% of the overall grade for the class. Each report is worth up to 5% of your overall grade at the discretion of the teacher and should be written in APA format. Book selection is at my discretion and will cover appropriate mathematical concepts.

Tutorial:

Tutorial is available during office hours posted above. Tutorial is mandatory for any students with a cumulative grade average below an 80.

The Key to Success:

Good note taking and regular homework completion correlate highly with a successful student. In other words, when a student takes notes and completes the homework, he or she will be successful in this class.

Plagiarism:

All work submitted for grading must be your own. If cheating is detected on any piece of work submitted for credit, a grade of 0 will be given to this piece of work and further actions will be performed as dictated by APS guidelines. I am inflexible in this.

Tech High School

Mathematics

Course: Statistics

Teacher: J. Bragelman

I have read the course syllabus, and I have shared its contents with my parents. Furthermore, I am aware of the grading policy that will form the basis of my evaluation and how my grade will be computed. I am aware that homework is an extension of the regular classwork, and will be counted as a part of my overall evaluation. I realize that I am required to maintain a notebook containing all notes, classwork, homework, and assignments. I am also aware that a written excuse must be presented to the teacher upon my return from an absence.

_____ I have read the expectations, and I am aware of what is expected of me to successfully complete this class.

Student Signature: _____

Parental support is requested to make sure that all assignments and homework are completed and turned in on time. Parents are also asked to sign below, indicating that they have read this sheet and the course syllabus.

Child's Name: _____ Class Period: _____

Date: _____

_____ I have read the expectations, and I am aware of what is expected of my child to successfully complete this course.

_____ I have read the expectations, and I would like to discuss them further.

Parent(s) Signature _____