

Statistics Course Syllabus 2019-20

Mr. Adams

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Room 222

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Room 402

Course Description

Statistics is an advanced introductory course and does not assume prior knowledge of any probability or statistics. We will discuss examples from various fields. In the first part of the course we will discuss numerical and graphical exploration of data, including probability and random variables. After that we will study the theoretical concepts that we will need in the last part of the course for statistical inference. It is difficult to succeed in today's world without a solid understanding of basic statistics. This course aims to provide you with the statistical tools you will need to be an informed citizen and consumer, and be more potent in your future work or academics.

We might be using the statistical software R in the course which is a free programming language. We will attempt to build familiarity with google sheets (excel is very similar) which is frequently useful in academics and many professions.

The goal of all mathematics instruction is for students to become strong mathematical thinkers by developing the Common Core mathematical practices:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Instruction will be a balance of developing conceptual understanding, building procedural fluency and connecting to real life applications. My goal is to develop your number sense and mathematical intuition.

Textbook:

Statistics and Probability with Applications by Starnes and Taber. You will be assigned a textbook that you may keep at home and I will have a few to use in class.

Suggested Materials:

- Pencil
- Grid Composition book / Binder
- 2+ Colored pen(s)
- 3+ Different colored highlighters
- Transparent tape/glue (I will provide some)
- Scissors (I will have some in class)
- Graphing Calculator (TI-84 Plus Silver or TI-83 Plus recommended, can be checked out from Mimi Bennet in the main office. I will not allow TI Nspire calculators or other similar devices)

Course Outline:

Fall Semester

- Chapter 1: Analyzing One-Variable Data
- Chapter 2: Analyzing Two-Variable Data
- Chapter 3: Collecting Data
- Chapter 4: Probability
- Chapter 5: Random Variables

Spring Semester

- Chapter 6: Sampling Distributions
- Chapter 7: Estimating a Parameter
- Chapter 8: Testing a Claim
- Chapter 9: Comparing Two Populations or Treatments
- Chapter 10: Inference for Categorical Variables & Regression

Grading Scale:

Grades are an indicator of students' learning and work habits. While they are important, and students should aim to get the best grades that they can, focus on all aspects of learning and not just the grade.

A: 90 to 100% B: 80 to 89% C: 70 to 79% D: 60 to 69% F: below 60%

eSchoolPlus Home Access:

Students are encouraged to check eSchoolPlus Home Access regularly to monitor progress and follow up on missing assignments. Grades are reported 3 times per semester, otherwise eSchoolPlus is an incomplete grade.

Cell Phones and other electronic devices

Students will “park” their phones during the class period in order for them to better focus on their academics.

Course Requirements:

Assignments (20% of overall grade)

Assignments are designed to help students develop mastery of necessary concepts and skills. All assignments are due at the beginning of the next lesson. Students should correct and revise all work, in colored pen. Notebooks are collected and graded at the end of each unit. Each assignment is worth 4 points.

Assessments (60% of overall grade)

Assessments make up the largest part of your grade as they serve as strong indicators of mathematics understanding. You will have an assessment (quiz or test) approximately every 2 weeks. Students should complete corrections on all assessments to help learn from mistakes and identify areas of improvement.

At the end of the semester, the lowest quiz or half test will be dropped from the student’s grade average. Each quiz is worth the same amount of points, and worth one half of a test.

Final Exam (20% of overall grade)

A cumulative final exam will be given at the end of each semester. Students should keep all their work and assessments from the semester, in order to prepare for the final exam. The final exam score can replace your second lowest quiz or half test from the semester.

Absences and Tardiness:

- Regular attendance is vital to learning and keeping up with a fast-paced curriculum. If you are absent it is YOUR responsibility to make up any work missed. Check the website for missing work and see me if you need help. It is helpful to check in with a peer ‘buddy’ to find out what you missed, or email me.
- Make up assessments or quizzes will not be given unless prior arrangement is made. Your lowest quiz grades will be dropped, and your final exam can replace your second lowest quiz grade or half test. This essentially lets you miss one exam or two quizzes per semester with no penalty and replaces make ups.
- Late work will be reduced in point value by one point per week, and will not be accepted after the next quiz or test on that content
- If you are not in your seat ready to learn when the bell rings you are considered tardy and your work is late.
- Leaving the classroom for personal needs should be kept to a minimum, and after checking with me.

Behavior Expectations:

My goal for this class is a cooperative, tolerant, supportive, and challenging learning environment in which all students succeed. The teacher and the students are a community and we are all expected to be respectful of one another, our belongings and our time.

I expect myself to be positive and supportive while doing my best, and I expect your best also.

Academic Integrity

Any work submitted to grade that is not your own will result in a zero grade for the assignment/assessment and is ineligible for final exam replacement or drop. The policy below is the Drake High School Cheating Policy:

- First Incident: A zero grade on submitted work. Notification of the assistant principal and counselor. Notification of parent/guardian. A written contract is drawn up.
- Second Incident: A zero grade on submitted work. Conference with the assistant principal, teacher, parent/guardian. A two-day school suspension.
- Third Incident: A three-day school suspension. Semester failure in the class in which cheating occurs. Referral to SARB, possible transfer to continuation school.
- In the case of more serious dishonesty (violation on a culminating semester project, final exam, or standardized test), the student will immediately fail the course.

How to get help?

Ask questions in class, look at my website (eventually), the online textbook, email me, ask a classmate, do an internet search for a video to help you, use school resources. I am happy to try scheduling time outside of class to help you. PLEASE GET HELP AS SOON AS YOU NEED IT! Please communicate with me, I can only be as helpful as you let me be

Signed: _____

Signed: _____