Student Handbook
Elementary Statistics
2021-2022

Collegian Course through SUNY Ulster (MAT 211)

Mrs. Armstrong

How to contact me:

My e-mail: jarmstrong@saugerties.k12.ny.us

My phone number (at school): 247-6500 ext: #2620 (office) ext: #3136 (voicemail)

To get to My Webpage:
1. www.saugerties.k12.ny.us
2. Select a school: Saugerties High School
3. Select Teachers: Armstrong, Mrs.—Math

Extra Help: Tuesdays and Thursdays from 2:22-3:00 in room 211
Please sign up in class or send me an email if you plan to stay after so I can make sure there is enough space.

Google Classroom and Google Meets:
All students will receive an invitation to Google Classroom to be used in the event that we have to pivot to remote instruction at any point during the school year.
If any lesson needs to be provided virtually, I will send a link to the student's email address with the exact time of the meeting.

Course Objectives:

This course will introduce the basic concepts of statistics and probability which will include organizing, interpreting, and analyzing collections of data and statistical information. In addition, students will be able to infer certain conclusions given the data to be analyzed.

This year is packed with new information that is very interconnected. If you do not understand one unit, the others after it will only be harder. Therefore, it is important that you attend class, do your homework, stay after when necessary, and ASK QUESTIONS! Here are the chapters we will cover throughout the year:

1. Introduction to Statistics
2. Summarizing and Graphing Data
3. Statistics for Describing, Exploring and Comparing Data
4. Probability
5. Discrete Probability Distributions
6. Normal Probability Distributions
7. Estimates and Sample Sizes
8. Hypothesis Testing
10. Correlation and Regression
11. Goodness of Fit and Contingency Tables (if time permits)

Student Learning Outcomes:

Upon successful completion of this course, the student will demonstrate numeracy skills by being able to:

1. Use tables, graphs, and numerical measures to describe and analyze a data set.
2. Use probability to quantify the likelihood of a given event; calculate "mathematical expectation."
3. Construct and analyze a probability distribution and identify the distribution as binomial, normal, or otherwise; calculate and interpret the mean and standard deviation of a given distribution; calculate probability for a binomial and normal distribution.
4. Construct and interpret a confidence interval for a population parameter μ and p; determine sample size to guarantee a given maximum error.
5. Write a complete hypothesis test for claims about a population; write a complete conclusion and recognize the difference between statistically significant and chance fluctuation.
6. Give a complete linear correlation and regression analysis for a data set for two variables; apply and interpret the results.

Class Rules:

Be a Learner	➢ Participate in class ➢ Pay attention ➢ Ask questions ➢ Do not cheat or copy others' work (this will also not be tolerated by SUNY Ulster's academic integrity policy & is grounds for dismissal from the college course)
Be Respectful	➢ Be polite to peers and school staff ➢ Use quiet voices during class work when in the building ➢ Turn off cell phones and electronic devices during class in the building. (Phones can be a distraction to what you should be learning during a lesson—please put them away) ➢ Turn off your microphone if you are not speaking during virtual classes to reduce feedback
Be Responsible	➢ Be on time to class ➢ Ask for help if you need it ➢ Complete all work by the due date to receive full credit ➢ Make up any missed work before the day of the unit test to receive half credit
Be Positive	➢ Use appropriate language ➢ Wear appropriate clothing to class (NO hats, hoods, or sunglasses) ➢ Turn on the camera during virtual lessons if possible ➢ Smile!
Be Safe	➢ Wear a mask that covers your nose and mouth during all lessons in the classroom ➢ Maintain a 3 foot distance from other students ➢ Keep hands, feet, and other objects to yourself ➢ You must sign out on the sheet in the classroom if you must leave the room for any reason

Consequences:

This is an upper-level mathematics course and inappropriate behavior will not be tolerated. If you cannot follow the class rules, you will be asked to leave and the school's disciplinary measures will be implemented.

Materials:

- Textbook: Elementary Statistics, 12th edition by Mario F. Triola
  - There is also pdf copy of the textbook available to download from my website
- Pencils or pens
- Paper for homework assignments
- A 3-ring binder: ***2-INCH or larger*** (your papers will not fit otherwise)
- A TI-84 graphing calculator will be needed for homework assignments by the start of Chapter 3 (beginning of October)
  - Available as a free app download onto Android phones/tablets/chromebooks through Google Play Store: wabbit.emu
  - Available as a free app download onto Apple devices and iphones but some of the statistics functions are not available on the free version: calc 84 or calculate 84
  - Students will have access to a graphing calculator for use in the classroom

Organizing your Notebook:

For each unit, you will copy the notes and class examples into a guided notes packet. Place the homework, tests, and any additional handouts in chronological order after each unit packet. You will fill up the equivalent of about 2 binders this year. A little suggestion: Put everything from the first semester in one notebook and leave it at home & use another one for the second semester. Do not throw this stuff away…you will need it to review for the cumulative final exam at the end of the year.

High School & College Credit

Upon successful completion of this class, you will earn high school credit. You may also pay to take Elementary Statistics for college credit through SUNY Ulster. It's like taking 2 classes in one and the college cost is only a fraction of what you would pay during your freshman year. You must register with SUNY Ulster if you would like the college credit but please keep in mind that they have a very strict deadline. You will not be able to register later in the year. You will be given a copy of the registration packet in school and there is also a copy posted on my webpage.

Your average will be comprised of 4 quarters (that count as 20% each) and a cumulative final exam from SUNY Ulster that will count as the remaining 20% of your final average. This is how your grade will be calculated even if you do not elect to pay for the college credit. If you elect to pay for the college credit, your final average will be converted using the SUNY Ulster's grading policy below. This grade will be part of your college GPA so make sure to take this class seriously.

SUNY Ulster's Grading Policy	
Final Numeric Average	Letter Grade
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
0-59	F

Grading for Each Quarter	
Category	Percent of Quarter Grade
Unit Tests	75%
Homework	10%
Quizzes	5%
Projects	5%
Effort & Participation	5%

Homework:

You can expect that homework will be assigned ***EVERYDAY.*** Since many of you will not actually study the notes we cover in math, you have to practice what you learn in class in order to make it "stick." All homework assignments are due at the beginning of the following class, as one topic builds on the next. Your homework will be graded as follows:

- I will check to ensure you have tried all of the questions on the assignment to the best of your ability and showed the appropriate work
- You can earn up to two points on each assignment and will be graded with a check (2 points), check minus (1 point), or zero
- You have until the day of the chapter test to make up late assignments for half credit (1 point instead of 2)

Quizzes:

In addition to unit tests, you will also have quizzes to ensure you are retaining material within each unit. You will have a quiz or a test approximately every one to two weeks. We will not often review for quizzes in class. You should use your notes and homework from the beginning of the unit through the quiz date in order to prepare.

Unit Tests:

You will have a test at the end of each unit or major topic. We will review the day before and you will have the entire class period to complete the exam. If you miss a test, you must make it up within 5 days or you will get a zero.

You may also have cumulative quarter finals that will count as two test grades. These will ensure you are retaining the material from the beginning of the year. Be sure to study for these exams. There will be no test corrections on quarter finals. You will also have a cumulative final exam that will count as 20% of your final average.

Unit Projects:

Statistics is the science of organizing, analyzing and interpreting real-life data. You can expect to complete projects during many units to ensure you understand and can accurately apply the concepts from class.

Effort/Participation:

Each day you start with 2 points.

2 points: → You are prepared with your notebook, calculator AND a pencil.
→ You work quietly on individual assignments and cooperatively in groups.

1 point: → You show up to class without your notebook, calculator, OR a pencil.
→ You do not work quietly on individual assignments OR cooperatively in groups.
→ You show up to class late.

0 points: → You show up to class without at least two of the required materials.
→ You do not work quietly on individual assignments AND uncooperative in groups.
→ You do not come to class.

For each day you attend extra help with me, you earn up to 2 participation points.
(1 point if you have detention or only stay half of 9th period)