

Introduction to Statistics for Middle School Students

Grades: 6th – 8th
Prerequisites: Pre-Algebra

Day of Week: Monday
Time of Class: 1:00 PM – 2:30 PM
Length of Class: 10 weeks
Semester: Spring 2022
Tuition: \$250.00

Class Dates:

Week 1: Week of March 28

Week 2: Week of April 4

Week 3: Week of April 11

No classes: Week of April 18 – 22 (Spring Break: Passover and Easter)

Week 4: Week of April 25

No classes: Week of May 2 – 6 (Eid Al Fitr)

Week 5: Week of May 9

Week 6: Week of May 16

Week 7: Week of May 23

Week 8: Week of May 30

Week 9: Week of June 6

Week 10: Week of June 13

Make Up Week: Week of June 20

Instructor's Name: Joleen Sierra
Instructor's Email: insightedservices@gmail.com
Instructor's Phone: 276-206-5094

Description of Class:

We live in a time of technology with a wealth of information and data available at our fingertips. It is important to be able to analyze and interpret all the data presented to us! Learning statistics not only helps us understand numerical data, it also helps us think critically when interpreting any information. This class will provide a strong foundational overview in the area of statistics. Learners will also be able to apply what they learn in this class to future stats and science classes.

Class Approach:

The instructor will teach new concepts in statistics weekly, while providing real-world examples. Students will be encouraged to take part in discussion about real-world applications of concepts. Hands-on activities during class will further enhance the learners understanding of concepts and make it fun!

Goals:

- Students will have a strong foundational understanding in the concepts of statistics.
- Students will be able to identify and calculate central tendency measures.
- Students will understand how scientists collect data for experiments.
- Students will know how to interpret various graphs and identify manipulated data.
- Students will understand concepts basic concepts in inferential statistics.

Textbook:

None required

Additional Supplies/Resources Needed:

- Webcam
- Microphone
- Notebook
- Pen/Pencil
- Colored Pencils
- Calculator
- Printer

Requirements:

Students will be required to take part in weekly discussions and complete all assignments.

Weekly Homework:

Students should expect to complete about 1 hour of homework weekly. An end-of-class assignment the last week should be expected to take 2-4 hours over the course of 3 weeks.

Homework Policy:

All assignments will be due prior to the beginning of class. If additional time is needed, please feel free to contact me.

Additional Policies:

If a learner needs additional assistance, please feel free to contact me.

Evaluation:

Students will be evaluated on understanding of key concepts through discussion and weekly quizzes. Additionally, a cumulative project will highlight understanding.

Grading Scale:

90 – 100 A

80 – 89 B

70 – 79 C

60 – 69 D

Anticipated Weekly Course Schedule:

Week	Topic
Week 1	What is Statistics? Why is it important?
Week 2	Types of Data; Collecting Data; Sampling Methods
Week 3	Levels of Measurement; Variables
Week 4	How do scientists design experiments?
Week 5	Calculating mean, median, and mode from a data set; Identifying range and outliers
Week 6	Frequency distribution tables and graphs
Week 7	Reading data on graphs; Shapes of distributions and what they mean
Week 8	Analyzing and interpreting data; Identifying skewed data and manipulated data
Week 9	Understanding probability
Week 10	How do we use statistics and probability to make a statistical inference?