

**SPRING SEMESTER:
STATISTICS GROUP ASSIGNMENT**

This is a simple project. Your goal as a group is to prove to the class and to me that you have learned something about statistics over the course of this semester. The simple way to do this is to develop a hypothesis, design a study, collect some data, analyze the data, present the data, and defend your results.

What you choose to study is up to you. Perhaps you are interested in the heights of children in different parts of town. Perhaps you are interested in the numbers of students on the honor rolls at various schools in the area. The subject matter is up to you, but alpha will equal .05.

Whatever you choose to examine in your study must be checked with me. Each of you will write an individual paper presenting your results. You will also use the computer/projector to present your data and results to the class. At a minimum, you are expected to:

- a) State the purpose of your study
- b) Define your population
- c) Explain how your sample(s) was(were) selected
- d) Justify your selection process as being unbiased and/or fair
- e) Explain how your data was collected.
- f) Present your data graphically.
- g) State and explain your choices for type of test(s).
- h) Perform test(s) and summarize your results
- i) Explain and detail any problems that may compromise your results
- j) Answer questions from the class

Your grade will be determined as follows:

Presentations will occur on

15% Peer Review of your presentation.*

15% My review of your presentation.*

70% Your paper, which will be due on June 5 (may be modified if the exam schedule changes or a Track meet prevents you from attending.)

While I do need an e-copy of your paper, it MUST be handed in on paper, in class to be considered on time!

*All points will be determined using the following grid:

Award points based on the truthfulness of the following statements.			Possible Points
I know the purpose of this study.			5
I understand how they defined the population the way that they did, and it made sense.			5
They explained that their sample(s) were chosen appropriately and in an unbiased and fair process (and they were right).			15
The data was presented graphically and effectively.			15
They explained the how and why they picked the appropriate test for their situation (and they were right).			10
Their test result(s) agreed with their conclusion.			5
Any problems and issues in data collection and/or interpretation were identified and their relevance explained.			10
They answered our questions accurately and effectively.			5
The presentation is well presented and organized.	The paper is well presented and organized	15	15
The Statistical analysis and calculations are correct and appropriate.			15
Total			100

Due by Thursday 5/14 You have a Marching Practice at 11 am

A detailed list of who you are working with, if anyone.
 What are you going to investigate? What question are you trying to answer?
 How and where are you thinking of collecting your data?
 How large a sample do you need to have? Calculation required.

You will have from **Monday May 18th through Friday May 22nd** to collect your data and get it entered a google spreadsheet. I will monitor progress.

You will have **Tuesday May 26th – Monday June 1st** to write your paper and prepare your presentation.

Presentations will take place on **Tuesday June 2nd and Wednesday June 3rd** . Presentation order will be a random draw. Your paper is due both in print and in ecopy at the time of your presentation.