

TUTOR STUDY TIPS: STATISTICS

THE KEY IS NOT SPENDING TIME, BUT INVESTING IT

It's important to program 1 or 2 hours of your day, a few days out of the week for studying statistics. We recommend completing exercises over time as opposed to in one or two sittings before a test. Basically, it's more efficient to study numerous topics each day to help you stay focused, than to deep dive into it all at once.

LEARNING IS LESS ABOUT MEMORIZING FACTS AND MORE ABOUT THE ABILITY TO THINK

Statistics, much like mathematics, is a subject that requires the use of many formulas. Do not try to memorize these formulas; instead, be sure to study *concepts*. Understanding the components that make up a formula will make it much easier to remember later on.

NOTE-TAKING COMPLEMENTS LISTENING

Since there is so much information being learned in a short amount of time, studying statistics can get easily overwhelming. It's important to take notes, because many times you will find yourself referring to them. Be especially attentive to comments your professor stresses. Title all lectures. Be sure to keep notes organized.

PRACTICE MAKES PERFECT

This especially applies in statistics. Reading the textbook is informative and necessary, but you must make sure to practice as many problems and exercises as possible. **Study and solve for several variations of a topic. This is when the learning actually kicks in.**

The only way we can spot errors and improve our abilities is through practice. Complete all homework assignments, as not only will you receive good grades for having completed them in the first place, but you'll also be prepared for quizzes, tests, and other exams.

CREATE FLASHCARDS FOR FORMULAS

Flashcards are a convenient tool to help you memorize. Make good use of them by writing down all necessary information. Formulas must be understood and memorized as they will be used **continuously** throughout the semester.

DON'T RUSH THE PROCESS

In statistics, we should **completely** understand a topic before progressing to the next. Topics are all linked. Complete understanding of chapter 1 is fundamental for an adequate understanding of chapter 2, and so forth.



PRACTICING STATISTICS

Understanding concepts

Statistics can easily get confusing when you don't understand words that are repetitively used. It's important to have a clear grasp of concepts such as the following:

- **Population:** In statistics, a population is the pool of individuals from which a statistical sample is drawn for a study.
- **Sample:** A sample is an analytic subset of a larger population. The use of samples allows researchers to conduct their studies with more manageable data and in a timely manner.
- **Mean:** The mean of a dataset is the typical value, often called the average. It is calculated by adding up the values in the dataset and dividing by the number of values in that set.
- **Standard Deviation:** A measure of the amount of variation or dispersion of a set of values.

These words will be used throughout the entire semester and in many, if not all, chapters of your textbook. So, make sure you clearly understand these words from the get-go.

How to SEE

Finally, the 3 most important steps you need to properly complete any exercise or problem in statistics are:

- **S: Select** the appropriate technique. Being that there are many formulas, most of them similar, it's important to understand when to use one or the other.
- **E: Execute** the technique correctly. This means you must make sure your formulas are correct; the data is in order, and everything is in its place.
- **E: Explain** your results clearly and concisely. Your analysis must be accurate and comprehensible.

Works consulted:

<https://cuny.manifoldapp.org/projects/clear-sighted-statistics>

<https://www.cliffsnotes.com/study-guides/statistics/common-mistakes-and-tables/common-mistakes>

<http://www.howtostudy.org/statsguide.php>

https://statisticsbyjim.com/basics/mean_average/