

# STATISTICS


Is statistics not really your favorite course? Has math never been your strongest point? Some students see statistics as a big obstacle. For this reason, when it comes to the quantitative courses they often experience stress and fear of failure. It is therefore important to follow a **good approach** where theory, exercises and software are closely linked to each other. Below and on the back side you can find some useful **tips and ideas**.

## Theory

- A **thorough understanding** is necessary to start working with exercises and software.
- More context and explanation make formulas more 'digestible'.

## Exercises

- **Applying** the different concepts gives you extra insight in the theory.
- **Practicing** requires quite some time, but can be highly rewarding!

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- Processing complex data helps you **establish links** between different notions.
  - Through software you can easily recognize the practical relevance and usefulness of statistical analysis.

## Software

**Need extra support?  
Contact Study Guidance!**



### Study advisors

Individual guidance for mathematics/statistics  
[student.vub.be/en/study-advisors](https://student.vub.be/en/study-advisors)

### Tutoring

Intensive help (private lessons) by VUB-students  
[student.vub.be/en/study-guidance#tutoring](https://student.vub.be/en/study-guidance#tutoring)

# TIPS & TRICKS

## ✓ Understand

- Focus first on the general principles and make sure you **master the basic notions** of each chapter.
- Make then sure you **pay enough attention to details**. This is the only way to be able to make a distinction between different concepts and techniques.
- **Alternate theory with exercises** so that you can immediately see how it works. This helps as well to better memorize the material.
- **For each chapter** think about **what** you have learned, **how** you have to use it and **why** it is important.

## ✓ Practice

- **Get to know your formula sheet** really well! *Do I understand every symbol in the formula? Can I make links with other formulas?*
- Practice a lot so that you learn to **work efficiently with your (basic) calculator and with the software**.
- Work **step by step** and check every time whether the result of the intermediate steps makes sense. *E.g. Is the value of the variance positive?*
- For each topic make **exercises with an increasing level of difficulty**: start with simple examples and then move on to more challenging exercises.
- **Try also new exercises**, sometimes you just need to dare! Work independently, without looking at the solution.
- **Don't give up** if you don't immediately succeed: **it's ok to make mistakes!** Try to find your own mistakes by checking your calculations. In this way you can learn from your experience!
- Practice **regularly from the start of the semester**. Using formulas and making calculations should become an automatism, so that you don't lose time during the exam.

## ✓ Establish links

- **Use your formula sheet** to make the links between theory and exercises explicit:
  - **From formulas to exercises:** *When do I need to use this formula? For which kind of exercises? How do I combine different formulas?*
  - **From exercises to formulas:** *How can I choose the right formula for this exercise? Are there any keywords which immediately remind you of certain formulas?*
- **Compare several kinds of exercises** to find similarities and differences. In this way you can learn to recognize the right method in any situation.