

Eléments de statistique

Lecturer

Catherine VERMANDELE (Coordinator)

Course mnemonic

STAT-D103

ECTS credits

5 credits

Language(s) of instruction

French

Course period

Second term

Course content

Production and statistical organization of data. Descriptive analysis of an observed univariate or bivariate series. Elements of probability theory. Random variables and probability distributions. Introduction to random sampling. Estimation and confidence intervals.

Objectives (and/or specific learning outcomes)

To present the main characteristics of the statistical study of a data set.

It aims to answer the following questions:

- > How to approach a set of data? What questions should be asked before beginning the analysis of these data? What are the basics of the strategy of analysis?
- > What tools are there to highlight and describe the characteristics of a set of data? How can we organize, represent and summarize the data?
- > How can we highlight the existence of a relationship or association between two variables? How to study the characteristics of this association? How to measure its force?

Beyond the simple presentation of the approach and of the "tools" of the data analysis process, special attention will be paid to the problem of the choice to operate between these tools, to the question of the good and bad use of these tools, as well as to the interpretation of the information they provide on the data.

Pre-requisites and co-requisites

Courses having this one as pre-requisit

INFO-D203 | Analyse exploratoire et visualisation de données | 5 crédits and STAT-D203 | Analyse quantitative I | 5 crédits

Teaching method and learning activities

Ex cathedra course accompanied by exercises allowing the students to apply the concepts, tools and methods taught in the theoretical course.

References, bibliography and recommended reading

Dehon C., J.-J. Dreesbeke et C. Vermandele (2008), *Eléments de statistique* (5e édition), Editions de l'Université de Bruxelles (Bruxelles) et Editions Ellipses (Paris).

Other information

Contact(s)

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Evaluation method(s)

Other

Evaluation method(s) (additional information)

Written examination consisting of open questions on the theory and the resolution of exercises.

Determination of the mark (including the weighting of partial marks)

The result in the written examination is the final score.

Theory issues account for about one-third of the score and the questions about exercises correspond approximately to the other two-thirds.

Main language(s) of evaluation

French

Programmes

Programmes proposing this course at the faculty of Philosophy and Social Sciences

BA-HHAAR | Bachelor in History of Art and Archaeology : General | unit 3, BA-HHIST | Bachelor in History | unit 3, BA-HMUSI | Bachelor in History of Art and Archaeology : Musicology | unit 3, BA-POLI | Bachelor in Political Sciences : General | unit 2, BA-PPHIL | Bachelor in Philosophy | unit 3 and MS-ARCS | Specialized Master in Archaeological Science | unit U

Programmes proposing this course at the faculty of Letters, Translation and Communication

BA-COMM | Bachelor in Information and Communication | unit 3, BA-LCLAS | Bachelor in Ancient Languages and Letters : Classics | unit 3, BA-LGERM | Bachelor in Modern Languages and

Letters : German, Dutch and English | unit 3, BA-LLANG | Bachelor in Modern Languages and Letters : General | unit 3, BA-LORIE | Bachelor in Modern Languages and Letters : Oriental Languages | unit 3, BA-LROMA | Bachelor in French and Romance Languages and Letters : General | unit 3 and BA-LSLAV | Bachelor in Modern Languages and Letters : Slavic Languages | unit 3

