UCLouvain

wfarm1247

2025

Statistical data processing

The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

3.00 credits	15.0 h + 15.0 h	Q2

Language :	French
Place of the course	Bruxelles Woluwe
Prerequisites	Mathematical notions. *The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.*
Main themes	The objective of this course is to give a basic knowledge in the statistical data processing related with the biomedical domain. The course also deals with how computer software, in particular JMP (SAS) can be used to present and analyze data. The course comprises theoretical lectures and exercise sessions: One- and two-dimensional descriptive statistics. Inferential statistics: populations and samples, probabilities, variables, theoretical distributions, confidence intervals (means, variance, proportion), hypothesis testing based on sample means (Student t-test) and proportions.
Learning outcomes	**At the end of this learning unit, the student is able to :** 1 This course is designed to introduce the students to the statistical and methodological issues applied to problems in the biomedical sciences and to avoid the common pitfalls in data analysis. At the end of the course the successful student will be able to use the techniques of inferential statistics within the framework of his/her research. The course focuses on the most frequently used statistical methods. The underlying mathematical developments are limited to a strict minimum and replaced by intuitive reasoning and concrete examples, especially via practical exercise sessions. The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled 'Programmes/courses offering this Teaching Unit'.
Bibliography	• Triola, M.M., Triola, M.F. and Roy, J. (2018) Biostatistics for the biological and health sciences, Pearson Education, 2nd edition. • Rosner B. (2010) Fundamentals of Biostatistics. Duxbury, 7th edition. • Zar, J.H. (2010) Biostatistical analysis, Pearson Education, 5th edition. • Forthofer, R.N., Lee, E.S., and Hernandez M. (2007) Biostatistics. A guide to Design, Analysis and Discovery, Elsevier, 2nd edition. • Senn, S. (2007) Statistical Issues in Drug Development, Wiley, 2nd edition.
Faculty or entity in charge	FARM

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Approfondissement en sciences pharmaceutiques - recherche	APPFARR	3		
Bachelor in Biomedicine	SBIM1BA	3	WMD1102 AND WSBIM1001 AND LANGL1854	
Bachelor in Pharmacy	FARM1BA	3	WMD1102	
Additionnal module in Pharmacy	APPFARM	3		
Certificat d'université : Statistique et science des données (15/30 crédits)	STAT2FC	3		