





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

4.00 credits	15.0 h + 5.0 h	Q1
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Language :	French > English-friendly
Place of the course	Louvain-la-Neuve
Prerequisites	Concepts and tools equivalent to those taught in teaching unit LSTAT2014 : Eléments de probabilités et de statistique mathématique
Main themes	The themes of touched upon in the classroom are : <ol style="list-style-type: none"> 1. Parametric vs nonparametric statistics 2. Nonparametric estimation of a cumulative distribution function 3. Location problems: the one-sample setting 4. Location problems: the two-sample setting 5. Location problems: the K-sample setting 6. Dispersion problems: the two-sample setting 7. Goodness of fit testing 8. Association analysis
Learning outcomes	At the end of this learning unit, the student is able to : <ol style="list-style-type: none"> 1 The students will obtain knowledge about the basic concepts of nonparametric statistical inference. They will learn about elementary nonparametric testing procedures. They will be able to use these nonparametric procedures for analyzing real data, and this by using, for example, statistical software packages.
Bibliography	<ul style="list-style-type: none"> • Gibbons, J.D. (1971). Nonparametric Statistical Inference. McGraw-Hill, New York. • Hollander, M. et Wolfe, D.A. (1999). Nonparametric Statistical Methods. Second Edition. Wiley, New York. • Lehmann, E.L. (1998). Nonparametrics: Statistical Methods Based on Ranks. Revised First Edition. Prentice Hall, New Jersey. • Maritz. J.S. (1995). Distribution-free Statistical Methods. Second Edition. Chapman and Hall, New York. • Mouchart, M. et Simar, L. (1978). Méthodes nonparamétriques. Recyclage en statistique, volume 2. Université catholique de Louvain, Louvain-la-Neuve, Belgique. • Randles, R. et Wolfe, D. (1979). Introduction to the Theory of Nonparametric Statistics. Wiley, New York.
Faculty or entity in charge	LSBA

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Statistics: Biostatistics	BSTA2M	4		
Master [120] in Mathematics	MATH2M	4		
Master [120] in Statistics: General	STAT2M	4		
Master [120] in Economics: General	ECON2M	5		
Certificat d'université : Statistique et science des données (15/30 crédits)	STAT2FC	4		