

3 credits

15.0 h

Q2

Teacher(s)	Lederer Johannes (compensates Van Keilegom Ingrid) ;Van Keilegom Ingrid ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	The course focuses on empirical processes and on techniques to do inference for semiparametric models in statistics.
Aims	<p>1 By the end of this class, the student will be able to understand the basic concepts of empirical processes and will be able to apply these concepts to do inference in semiparametric models in statistics.</p> <p>-----</p> <p><i>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".</i></p>
Content	<p>The course outline is as follows:</p> <ol style="list-style-type: none"> 1. Introduction <ul style="list-style-type: none"> • 'Semiparametric models • 'Semiparametric Z-estimators 2. Empirical processes <ul style="list-style-type: none"> • 'Review of the basics of stochastic processes • 'Introduction to modern empirical process theory • 'Examples 3. Asymptotics for semiparametric Z-estimators
Bibliography	<ul style="list-style-type: none"> • 'Billingsley, P. (1968). Convergence of Probability Measures , Wiley, New York. • 'Newey, W.K. (1994). The asymptotic variance of semiparametric estimators. Econometrica, 62, 1349'1382. • 'Van der Vaart, A. and Wellner, J.A. (1996). Weak Convergence and Empirical Processes. Springer, New York.
Other infos	The course material consists of a syllabus. A pdf file of the syllabus will be made available to the students.
Faculty or entity in charge	LSBA

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Statistics: General	STAT2M	3		