

LSTAT3220

2010-2011

Statistical consulting

5.0 credits	30.0 h	1+2q
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Teacher(s) :	Govaerts Bernadette ; Ritter Christian ;	
Language :	Anglais	
Place of the course	Louvain-la-Neuve	
Main themes :	- Exploratory data analysis and rendering of data by tables and graphs - practical issues in data analysis (missing values, outliers, transformations) - review of common statistical analysis methods (regression, ANOVA, multivariate analysis; choice depends on selected projects) - communication with clients (project discussions, presentation of results, report writing) - professional and ethical conduct (analysis plan and cost estimation, mutual responsibilities of statistician and client, truthful representation, guidelines for ethical conduct) - practical problem solving in two real life cases coming from diverse application areas including medecine, psychology, engineering, agronomy and business	
Aims :	The participants in this course will acquire knowledge and skill in three areas: - statistical analysis of real life data (from problem method), - communication (discussion with clients, oral and written presentation of results), - aspects of professionalism and ethical conduct (planning, cost, good practice) To accomplish these objectives, the participants will work on two real life consulting projects and their evaluation provides the main part of their grade. 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".	
Content :	- Exploratory data analysis and rendering of data by tables and graphs - practical issues in data analysis (missing values, outliers, transformations) - review of common statistical analysis methods (regression, ANOVA, multivariate analysis; choice depends on selected projects) - communication with clients (project discussions, presentation of results, report writing) - professional and ethical conduct (analysis plan and cost estimation, mutual responsibilities of statistician and client, truthful representation, guidelines for ethical conduct) - practical problem solving in two real life cases coming from diverse application areas including medecine, psychology, engineering, agronomy and business	
Cycle and year of study:	➤ Master [120] in Statistics: Biostatistics ➤ Master [120] in Statistics: General ➤ Certificat universitaire en statistique	
Faculty or entity in charge:	LSBA	