C4. Web data analysis and software for statistics I: Introduction to survey data analysis

Subject Information:					
Code	C4	Plan	2014	ECTS	10
Type of Subject		Year		Semester	
Knowledge area:					
Department:					
Virtual Platform	Platform:	Studium.usal.es			
	Access URL:	Studium.usal.es			

Data about the instructor-teacher			
Teachers	Dr. Stephanie Steinmetz	Group / s	
Department	Department of Sociology and Anthropology		
Knowledge area	Quantitative Methods		
Academic Centre and University	University of Amsterdam, The Netherlands		
Office Address	OZ Achterburgwal 185 1012 DK Amsterdam		
Personal URL:	http://www.uva.nl/over-de-uva/organisatie/medewerkers/content/s/t/s.m.steinmetz/s.m.steinmetz.html		
E-mail	s.m.steinmetz@uva.nl	Telephone /Skyp User:	

Data about the instructor-teacher			
Teachers	Dr. Annamaria Bianchi	Group / s	
Departmer	Department of Management, Economics and Quantitative Methods		
Knowledg area	Statistics		
Academic Centre and University	University of Bergamo, Italy		
Office Address:	Via dei Caniana 2 24127 Bergamo, Italy		
Personal URL:	http://www.unibg.it/struttura/en_struttura.asp?rubrica=1&persona=2075&nome Annamaria&cognome=Bianchi&titolo=Dott.ssa		
E-mail	annamaria.bianchi@unibg.it	Telephone /Skyp User:	

Remarks (previous requirements, coordination, other, if any)
This is an INTRODUCTORY course. Students may have had only a basic understanding of statistics at the high school level. Nothing more than basic algebra and a desire to analyse survey data is assumed on the part of the student.

Objectives and competencies of the subject (basics, general, transversal, specifics)
This course offers students an introduction to the basic concepts and calculations used in descriptive and inferential statistics. Consideration is given to the methods of data collection, sampling techniques, graphing the data and statistical analysis of data. Students will learn • how to manipulate variables and apply basic bivariate tests; • how to answer a simple research question with statistical analysis and how to apply different (uni- and bivariate) techniques of data analysis used in quantitative research; • the underlying theory of generalizing from a sample to the population; • how to interpret bivariate OLS regression outputs including the coefficient estimates, their statistical significance, and summary statistics designed to capture the quality of the regression as a whole.

Programme (brief description of modules) and expected learning outcomes
This course provides an introduction to a wide range of statistical techniques that are used with survey data. It starts with core concepts - means, deviations, distributions -and then moves on to the core statistical methods, covering cross tabulation, confidence intervals, hypothesis tests, analysis of variance, correlation, and core elements of OLS regression (bivariate regression analysis, hypothesis testing). The course also provides an introduction to advanced statistical software.

Methodology
The course consists of both lecture and PC-lab sessions. While lectures focus on developing basic understanding of descriptive and inferential statistics, the lab's primary purpose is to offer students first-hand experience in conducting analysis and interpreting outcomes using statistical software. In the course different data sources will be used offering a broad range of topics which can be analysed.

Resources
Bibliography:
• Agresti, A. and C. Franklin (2012). Statistics: The Art and Science of Learning from Data. Pearson Prentice Hall, 3 edition • Newbold, P., Carlson, W.L., Thorne, B.M. (2010). Statistics for business and economics, Pearson, Boston • More readings will be posted at the beginning of the course
Online resources:
Will be posted at the beginning of the course

Evaluation System
General Considerations:
Evaluation Criteria:
Active participation & command of readings (20 % of final grade), Exam (80% of final grade)
Recommendation for second and following evaluations:

Employment Opportunities (optional)
Will be posted at the beginning of the course