	SUMMER
	SCHOOL
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## The 4<sup>th</sup> IPSA – HSE Summer School for Methods of Political & Social Research

		Course Syllabus
Course title:	Applied Regression	
Instructor:	Eduard Ponarin	
ECTS / academic hours	2 ECTS / 76 academic hours: 38 contact hours, 38 self – study hours	
Brief course description (up to	The purpose of this course is to acquaint the student with basic	
100 words):	regression methods, including linear regression, logistic regression,	
	and Poisson regression. The course assumes knowledge of basic	
	statistics. Some prior experience with the R programming language	
	will be very helpful but is not required. Each session has a lecture	
	and a lab component. Labs review examples of problems discussed	
	in the lecture.	
Indicative concepts (up to 10):		
	Day 1	Linear regression. Outliers, non-linearity, multicollinearity,
Workshop's overview:		heteroscedasticity.
	Day 2	Binary response variable. Logit models.
	Day 3	Multinomial response variable.
	Day 4	Poisson response variable.
	Day 5	Poisson regression for log-linear models to analyze complex
		contingency tables.
Assessment techiques to receive	The course concludes with a written in-class examination where	
graded certificate:	students will have to solve two problems using R.	
Essential readings:	Fox, John and Sandy Weisberg (2011). An R companion to applied	
	regression (Sage).	
	Kabacoff, Robert (2011). R in action: Data analysis and graphics with	
	R (Manning).	
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