Syllabus for the course: "Data Analysis 2"

1. Course Title: Data Analysis 2

2. Lecturer: Gábor Kézdi

3. No. of Credits. 2 credits (ECTS 4 credits)

4. Semester timing of the course: Fall 2016

5. Relationship with other courses: Prerequisite: Data Analysis 1. Followed by Data Analysis 3.

6. Course Level: MA / MSc first year

7. Background and overall aim of the course.
Data Analysis 2 covers advanced topics of regression analysis, the fundamental methods of data analysis. This course improves students' knowledge and skills to carry out regression analysis in complex situations and evaluate other people's analyses in the context of business and economic policy. The emphasis is on credible methods and learning the tools of convincing presentation. This course covers topics including regression with categorical variables, probability models, non-mean regressions, handling measurement error in regression, and methods of variable selection.

8. The learning outcomes of the course.
By successfully completing the course the students will be able to:
- Successfully formulate research questions that are answerable by empirical analysis;
- Carry out regression analysis with categorical data, regressions of probabilities, non-mean regressions, variable selection in regressions;
- Discuss and interpret results, understand validity and constraints.
- Present empirical analysis and write short reports with data;
- Evaluate the merits of presentations and reports that use data.

9. Textbook(s) /tentative/
Handouts provided by the instructor

10. Software
Excel, R and Stata.

11. Grading
Quizzes 20%
Assignments 20%
Term Project 10%
Exam: 50%

Passing the course requires a passing score on the exam (over 50%)

12. More detailed presentation of course contents

Week	Topic
1.	OLS Mechanics
2.	Categorical explanatory variables, Interactions
3.	Regression with Messy Data, Measurement error in variables
4.	Probability Models
5.	Non-Mean Regressions
6.	Variable Selection in Regression Analysis