

European Local Indicators of Poverty and Living Conditions: traditional and new survey techniques in the era of data deluge and Big data

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Semester Fall

ECTS 9 (6 European Statistical System and Data Production Model + 3 Poverty and Living Conditions Indicators)

Description The course aims to provide definition and measure of local indicators that be coherent and comparable across Europe and be useful and used by local stakeholders. It provides knowledge on the traditional data collections methods used in EU Surveys (e.g EU-Survey Income Living Conditions, Household Budget Surveys, Labour Force Survey) and a general introduction to the usage of administrative data sets and also large datasets as sources of statistical data (Big Data), with a focus on multi-frame surveys. It will tackle the most important topics in big data ranging from data collection, analysis and visualization, as well as applications of statistical models to Big data. At the end of the module student should be able to be confident with the theme of local indicators and Big Data in Official and should know the main problems/challenges linked to their usage as source of statistical data. Students will learn traditional and new survey techniques and what might be the problems that arise in the definition and measure of local indicators of poverty and living conditions.

Seminars and intensive lectures Natalie Shlomo: "Handling missing data, statistical data editing and imputation" Luigi Biggeri: "The estimation and computation of income, consumption and PPPs in the European statistical system" Daniela Ghio: "ESS: structure and organization", "ESS: Data collection, the link between national level and EU context", "ESS: SDMX – Data, metadata and exchange system; the code of practice and degree of harmonisation at EU level" Textbooks Readings will be provided by the lecturers during the course. Final valuation Written exam. Students can take the exam for the entire course, "Analysis of European data by small area methods" (9 ECTS), or for the courses "European statistical system and data production model" (6 ECTS) and "Poverty and living conditions indicators" 3 ECTS with reduced programs. Course website <http://sampleu.ec.unipi.it/> Other notes This course is part of a Jean Monnet Chair.

Attendance to the lectures is strongly suggested. Wide reading and deep thinking are strongly recommended.