Syllabus
Course description

Course title	**Quantitative Methods in Social Research**
Course year	1st
Semester	1st
Course code	53131
Degree	Master in Innovation and Research for Social Work and Social Education (IRIS)
Scientific sector	SECS-S/05
Lecturer	Cavrini Giulia (5 hours) Loner Enzo (25 hours)
Module	No
Credits	6
Total lecturing/lab hours	30
Total office hours	18
Office hours	
Attendance	According to the regulation.
Teaching language	English
Propaedeutic course	None

Course Description	The course introduces students to quantitative methods in social research and to descriptive statistics. It has strong theoretical and methodological components: it is grounded in statistical theory; it emphasizes the need for (social) theory-driven research; it extensively discusses how to adequately link the theoretical and the empirical levels in social research. The course has a strong applied and practical component, too. It includes practical sessions and activities; it provides students with several "howtos" in data collection, management and analysis. Practical work is developed with standard productivity software (e.g. MS. Word and Excel), on research topics and with data relevant to the social professions and – whenever possible – to the interests of attending students.
Specific educational objectives	Type of course: fundamental course in the following scientific areas: social statistics, methods in social research. The objective of the course is to offer both basic scientific knowledge and the opportunity to develop basic professional skills, in the fields of quantitative methods for social research and social statistics. Course contents and activities will help students in understanding whether a quantitative approach can help them in addressing given research questions (or any need for information), where to search for statistical data and/or how to collect new data; how to manage and properly analyse data (syntheses and descriptions). Successful students will have a basic methodological awareness that can help in assessing the quality of statistical information reported in newspapers, professional reports and scientific writings. They will have the basic skills that are needed to outline a quantitative study and to develop their own reports (papers, theses) based on the statistical description of quantitative data.
List of topics covered	-The quantitative research strategy in social research; its ontological, epistemological and methodological assumptions; strengths and weaknesses of this strategy; - Introduction to statistics and its basic concepts; - Fundamentals in research design and planning; - Methods in data collection: experiments, surveys and structured observation; - Existing data as valuable resources: register data, official statistics, data archives for data from previous surveys; sources related to students' interest. - Designing own data: the basics of survey methodology, with a special focus on measurement: operationalization of theoretical concepts; questionnaire design; a few hints on sampling and on statistical inference; - The different types of variable and the basic concepts of descriptive statistics; - Data representation (micro-level data, aggregated data and summary tables) and the fundamentals of data management (recoding, computing derived

	variables; taking care of own data, data documentation and versioning; backups); - Describing the distribution of nominal variables (frequency distribution) and their graphical representation; - Describing the distribution of continuous variables (measures of central tendency and dispersion) and their graphical representation; - Summarizing statistical information for social phenomena (e.g., unemployment, overcrowding, fertility) using ratios, rates and indexes; - Investigating bivariate relationships, and their graphical representation; - A few hints on statistical control and multi-variate analysis: controlling for spurious, intervening and moderating variables; - A few hints on multi-indicator measurement and scaling;
Teaching format	Frontal lectures; class and home exercises, their discussion; hands-on sessions with MS Excel; online self-testing exercises.
Learning outcomes	<u>Knowledge and understanding</u> Basic knowledge of, and understanding of, quantitative social research methods and descriptive statistics. <u>Applying knowledge and understanding</u> General awareness about: quantitative research methods and designs; how theoretical concepts relates to statistical data; how statistical data are designed and collected; how to properly perform a descriptive statistical analysis; how to do this with a spreadsheet. <u>Making judgments</u>: Basic knowledge supporting informed decisions about social research, when developing own work and when assessing the work of others. This includes being able to choose: whether to use quantitative methods or not; whether to collect new data or rely on existing data; the best way to collect own data given both research interests and practical constraints (i.e. time, money); best way to design a questionnaire; what statistical technique is to be used according to the type of variable(s). <u>Communication skills</u>: Ability to summarize data and own findings in a clear, concise and methodologically appropriate way. Use of statistical and methodological lexicon. <u>Learning skills</u>: Ability to find new data and to solve new problems given a set of methods and statistical techniques and a repertoire of data sources.

Assessment	Students are assessed in 3 steps: **a. Assignment 1 - Questionnaire design (1/3 of the final marks)** This is an individual or small-group (2-persons) assignment, consisting in focusing on a research question (students' choice), in selecting the related relevant concepts and in working towards the measurement of these concepts by using a questionnaire. In practice, students will be required to write 1-2 pages of questions, but according to given goals (addressing the research question) and with methodological awareness. The research question (and the related concepts) must be agreed with the instructor no later than one month before the exam. Details and deadline for submission to be communicated when the course starts. **b. Assignment 2 – Statistical analysis (1/3 of the final marks)** This is an individual project, consisting in developing a task (descriptive statistical analysis on a given theme) using one (already available) set of data. The task typically includes some data management, some analysis work (calculations of statistics, preparation of tables and graphs) and writing a short report. Students are expected to submit a short paper (4-10 pages) + 1-2 pages of research notes about the procedures they have followed. The project (and the dataset) must be agreed with the instructor no later than one month before the exam. Details and deadline for submission to be communicated when the course starts. **c. Integrative oral examination (1/3 of the final marks)** The assessment is completed by an integrative oral exam to verify the

	elaboration of the course contents and of the two assignments. **Active participation and attending students' assessment** Students attending 60% of the lectures, or more, can choose to be assessed according to an "attending students" route, in which marks from the oral examination will count for only 1/6 of the final marks and an assessment of their active participation in class (and/or on the OLE online course platform) will count for the remaining 1/6 of the final marks. Attendance includes both onsite and online attendance.
Assessment language	English
Evaluation criteria and criteria for awarding marks	Marks for the whole assessment procedure and for its singles steps are in the range 0-30. Sufficiency is attained when marks are greater than or equal to 18/30. *Assessment criteria* In general: acquisition of the course contents and development of the basic skills required. Methodological awareness in the development of the assignments. In the two assignments: adherence to the methodological knowledge and skills object of the course, logical structure, clear argumentation, formal correctness, proper methodological documentation (research notes). In the oral examination: clear argumentation and reflection skills on both the course contents and own assignments. In active participation, it is paid attention to co-operative work in class and on the OLE, to the ability to summarize in own words, to critically discuss course topics and activities – with disciplinary lexicon -and to the ability to make connections between themes and concepts discussed in the course.
Required readings	Clark, T., Foster, L. Sloan, L. and Bryman, A. (2021). *Bryman's Social Research Methods*, 6th edition. Oxford University Press. The following chapters: 1. The nature and process of social research; 2. Social research strategies: Quantitative research and qualitative research; 3. Research designs 4. Planning a research project and formulating research questions; 7. The nature of quantitative research; 9. Structured interview; 10. Self-completion questionnaires; 11. Asking questions; 15. Quantitative data analysis (pp. 315-338 only). A few summary notes, cheatsheets and short readings may be included in the required readings, during the course.
Supplementary readings	a. Attending students are kindly asked to read the following short paper before the course starts: Rosenhan, D. L. (1973), "On being sane in insane places". In *Science*, vol. 179, pp. 250-258. Reprints of this paper are available in English (click here for pdf), Italian (click here for Library record) and German (click here for Library record). Its contents will be used to discuss the rationale for qualitative and quantitative research strategies, their ontological, epistemological and methodological assumptions; and practical considerations calling for one or the other strategy, as well. b. Students may want to consult some of the chapters in the course textbook which are not listed as mandatory readings. This will depend on their needs during their studies at unibz. The overall textbook contents fall far beyond the scope of this introductive course. In fact, the choice of the textbook has been made with the aim to offer students a "methodological buddy" for the whole master program, besides being of use for this course. c. Other supplementary (optional) readings may be suggested during the course, taking into account specific students' interests and needs.