

# Syllabus

## *Course Description*

<b>Course Title</b>	Social statistics
<b>Course Code</b>	17319
<b>Course Title Additional</b>	
<b>Scientific-Disciplinary Sector</b>	STAT-03/B
<b>Language</b>	Italian
<b>Degree Course</b>	Bachelor in Communication Sciences and Culture
<b>Other Degree Courses (Loaned)</b>	
<b>Lecturers</b>	Prof. Giulia Cavrini, GCavrini@unibz.it <a href="https://www.unibz.it/en/faculties/education/academic-staff/person/13718">https://www.unibz.it/en/faculties/education/academic-staff/person/13718</a> dr. Evan Tedeschi, Evan.Tedeschi@unibz.it <a href="https://www.unibz.it/en/faculties/education/academic-staff/person/37256">https://www.unibz.it/en/faculties/education/academic-staff/person/37256</a>
<b>Teaching Assistant</b>	
<b>Semester</b>	First semester
<b>Course Year/s</b>	1
<b>CP</b>	6
<b>Teaching Hours</b>	30
<b>Lab Hours</b>	15
<b>Individual Study Hours</b>	105
<b>Planned Office Hours</b>	18
<b>Contents Summary</b>	The course, which also includes a lab module, aims to provide the foundations of statistical reasoning, offering the tools to understand and analyze social phenomena using quantitative methods. The program includes an introduction to the logic of statistics, the classification of variables, techniques for summarizing and comparing data, the analysis of relationships between variables, and the use of social indices and indicators.

	<p>The lab module is designed to provide a practical introduction to the analysis of social data using Excel.</p>
<b>Course Topics</b>	<p>During the course, the following topics will be covered:</p> <ul style="list-style-type: none"> <li>- Introduction to statistical methodology and descriptive statistics.</li> <li>- Definition of variable, statistical unit, population, and sample.</li> <li>- Statistical description of a group: from data collection to the data matrix.</li> <li>- Frequency distribution of a variable and its graphical representation.</li> <li>- Measures of central trend and position.</li> <li>- Measures of variability.</li> <li>- Analysis of the association between two variables: the two-way table.</li> <li>- Introduction to probability.</li> </ul> <p><b>LABORATORY</b></p> <p>This part of the course aims to provide students with the statistical informatics tools required for the statistical analysis of the data collected. To this end, lessons will be held in the laboratory, and EXCEL will be used for the statistical analysis of the data matrix:</p> <ul style="list-style-type: none"> <li>- Setting up the data matrix.</li> <li>- Manipulation of variables and cases: recoding, case selection, separate analysis.</li> <li>- Monovariate analysis: Descriptive statistics, frequency distributions and graphs.</li> <li>- Bivariate analysis: double-entry tables. Measures of relationships for qualitative variables.</li> </ul>
<b>Keywords</b>	Definition of variable; Simple and joint frequency distributions; Means; Variability; Definition of Association.
<b>Recommended Prerequisites</b>	Basic mathematics knowledge acquired during high school.
<b>Propaedeutic Courses</b>	
<b>Teaching Format</b>	<p>The course consists of in-person 30 hours of lectures and 20 hours of lab sessions, during which the professor will present the various topics. The lecture content will be delivered using PowerPoint presentations, which will be made available to students on TEAMS. All sessions follow a mixed approach: traditional lecture-based teaching alternates with interactive learning moments, with proportions varying depending on the topic and the type of activity</p>

	<p>carried out. Typically, the interactive component will be more prominent during in-class exercises and lab sessions.</p>
<b>Mandatory Attendance</b>	<p>In accordance with the regulation</p>
<b>Specific Educational Objectives and Learning Outcomes</b>	<p>The aim of the course is to ensure that students acquire a solid understanding of both the methodological and applied fundamentals of statistics, relevant to the statistical study of social phenomena. Students will develop the ability to identify and apply the appropriate statistical tools for describing individual phenomena or the relationships between multiple phenomena.</p> <p><b>Knowledge and Understanding.</b> Students will gain knowledge of and understand the fundamental concepts of descriptive statistics in order to produce data summaries that highlight the key features of the data.</p> <p><b>Applying Knowledge and Understanding.</b> Students will learn to apply the methodologies introduced during the course to socio-demographic data.</p> <p><b>Independent Judgment.</b> Students will develop strong independent judgment skills and learn to identify the most methodologically appropriate techniques to answer specific questions, based on empirical evidence provided by the data.</p> <p><b>Communication Skills.</b> Students will learn to use technical statistical terminology appropriately and effectively, in order to clearly communicate the conclusions drawn from their data analyses.</p> <p><b>Learning Skills.</b> A solid understanding of fundamental statistical concepts will enable students to independently continue their learning in this discipline.</p>
<b>Specific Educational Objectives and Learning Outcomes (additional info.)</b>	
<b>Assessment</b>	<p>The course examination consists of two parts:</p> <ul style="list-style-type: none"> <li>- A theoretical part, which will be assessed through a written test containing questions and exercises aimed at verifying both the knowledge and understanding of the course topics, as well as the</li> </ul>

	<p>ability to apply this knowledge to practical cases.</p> <p>- A practical part, assessed through a lab test in which the student will be required to analyse a dataset, answer the given questions, and describe the results obtained.</p>
<b>Evaluation Criteria</b>	<p>The final grade will be the weighted average of the written exam (5/7) and the lab assessment (2/7). Both parts must be passed in order to pass the exam.</p> <p>Additionally, two in-course (optional) assessments will be held during the semester. Passing both of these (one of which will include the lab part) will count as the final grade, which will be calculated as the weighted average of the two assessments, according to the criteria outlined above. If one of the two partial assessments is not passed, it may be retaken during the final exam.</p> <p>In any case, students may take the final exam if the grades from the in-course assessments are not considered satisfactory.</p> <ul style="list-style-type: none"> <li>- The evaluation criteria for the written exam are: accuracy of the answers provided, appropriateness of comments in sections requiring personal interpretation, and knowledge of the methods needed to solve the proposed exercises.</li> <li>- The evaluation criteria for the lab assessment are: knowledge of the software and techniques required to solve the proposed task, and the adequacy of the interpretation of the results obtained.</li> </ul>
<b>Required Readings</b>	<ol style="list-style-type: none"> <li>1. M.K. Pelosi, T.M. Sandifer, P. Cerchiello, P. Giudici <i>Introduzione alla statistica</i>, McGraw Hill, 2009 seconda edizione (capitoli 0 - 4).</li> <li>2. P. Poli <i>EXCEL 2019. Formule e analisi dei dati</i>. Hoepli Informatica.</li> </ol> <p>Notes will also be provided by the lecturers.</p>
<b>Supplementary Readings</b>	
<b>Further Information</b>	
<b>Sustainable Development Goals (SDGs)</b>	Quality education