

Teacher(s)	Maes Renaud (compensates Marquis Nicolas) ;Marquis Nicolas ;
Language :	French
Place of the course	Bruxelles Saint-Louis
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b>                      The objective of the course is to enable a multidisciplinary approach to the theoretical, methodological and technical aspects of creation, manipulation and analysis of quantitative data.</p> <p>At the end of the course, the student will be able to :</p> <ul style="list-style-type: none"> <li>- to design a sample;</li> <li>- to develop the coding and the data organisation in a statistical-processable format;</li> <li>- to imagine the construction of complex indicators by using analytical and programming tools of allocation within the algorithmic, sequential, repetitive, conditional structures;</li> <li>- to make these data representative of the reference population;</li> <li>- to select the individuals useful for the analysis;</li> <li>- to choose a statistical procedure (uni or bi-variate) according to the question and to the available characteristics of the variable;</li> <li>- to present the results in a table and/or a graphic, being aware of the pros and cons of the different types of presentation;</li> <li>- to assess the risks/the possibility to infer the results to the entire population by using the chi-square and Student's indicators.</li> </ul>
Evaluation methods	<p>Students will be assessed 1) through a deliverable that will be a group assignment - instructions will be given during the first lesson and made available on Moodle (50% the points) 2) through an examination at the end of the term (50% of the points).</p> <p>The global mark is the geometric average of the two parts:  <math>\#((\text{PointsExamen}/20) + (\text{PointsTravail}/20))</math></p> <p>The mark of the successful assessment (examination or work) may be retained, unless specifically requested by the student, during the same academic year.</p>
Teaching methods	<p>The course will be taught ex-cathedra 3h/week and will provide the theoretical elements needed to meet the learning outcomes : theory and vocabulary of quantitative data, data production and management, understanding ingredients for the analysis, mastery of the conditions of uses of methods and, above all, interpretations of results. The course will be as participatory as possible.</p> <p>The practical exercises (TP) will require commitment from the students, as they are set to allow them to put in practice the theoretical elements presented during the course, in particular : creating and making use of a questionnaire from a research question, interviewing respondents, creation of a database and transforming variables, as well as interpretation exercises of SPSS software outputs. Exchanges between students as well as with teaching assistant and the teacher will be fostered. These sessions are also intended to help students realize the expected deliverable (cf. below).</p>
Content	<ol style="list-style-type: none"> <li>1 Introduction : "how to deal with statistical data ?"</li> <li>2 Epistemological issues : sample, question, variable</li> <li>3 Making a questionnaire</li> <li>4 Making and managing a database</li> <li>5 Transforming variables</li> <li>6 Descriptive statistics, non response and sample quality assessment</li> <li>7 From sample to population : inference</li> <li>8 Significance test and control of the relation + midterm QA</li> <li>9 Bivariate 1 &amp; 2 : crosstabs, correlation/regression</li> <li>10 Bivariate 2 : correlation/regression, bivariate 3 : t-test</li> <li>11 Multivariate analysis 1 : principal component analysis</li> <li>12 Multivariate analysis 2 : cluster analysis</li> <li>13 QA</li> </ol>

Bibliography	Sera communiquée au fil du cours. Les slides, seule ressource recommandée, sont disponibles sur moodle.
Other infos	<p>At the university level, it is up to the students to decide whether they attend to the lessons or not. Teacher and assistants of course recommend a maximal attendance at both lessons and TPs. Except in the event of force majeure, non-attendance and its potential consequence are the student's sole responsibility.</p> <p>In the same way, students are free to organize their time during the academic year. Once again, we recommend a continuous assessment of the course comprehension AS WELL AS a continuous commitment in the deliverable.</p> <p>Students who decide not to follow those instructions and who would unfortunately fail at the January examination round should be aware that no catching-up session will be organized in the second term, nor in ex-cathedra teaching, nor in informal meetings with teaching assistants. The course content, about which the students were allowed to ask questions during the first term will be considered as seen and understood.</p> <p>Students who failed in January will of course be given the opportunity to get explanation about their deliverable and examination, but it is their sole responsibility to bring the needed improvement at June or August sessions.</p>
Faculty or entity in charge	ESPB

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Political Sciences (shift schedule)	<a href="#">SPDB1BA</a>	10	<a href="#">BHDPO1152</a>	