



The version you're consulting is not final. This course description may change. The final version will be published on 1st June.

5.00 credits

22.5 h

Q2

Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	Work on real data with final report (to improve if a second chance evaluation has to be held). Language of the evaluation: French
Teaching methods	The course takes place in the form of workshops. A survey database, possibly chosen by the audience, is analyzed throughout the course. Firstly, we criticize the way in which it was constructed, while secondly, we extract the main information using factor analysis tools and the inherent graphical representations. Course given in person. Some videos can nevertheless be used to improve understanding or add technical developments
Content	<p>The course mainly concerns the analysis, interpretation and communication of survey results. To this end, the classic sampling methods (quotas, random, stratified, clusters, etc.) used to develop opinion polls are detailed, specifying their characteristics, their interests and limitations. The crucial elements of reliability of studies to which communicators and politicians must be attentive are highlighted. The main tools for analyzing survey data are then discussed with an emphasis on the interpretation and visualization of the results.</p> <p>Course outline: methods of data collection and analysis</p> <p>Part I: data collection</p> <ul style="list-style-type: none"> <li>- Surveys: general</li> <li>- Empirical sampling methods</li> <li>- Probabilistic sampling methods</li> <li>- Construction of a questionnaire: formulation of questions</li> <li>- Margins of error: formula and characteristic curve</li> <li>- Weighting, re-balancing of data</li> </ul> <p>Part II: Data Analysis</p> <p>Databases: matrix elements</p> <ul style="list-style-type: none"> <li>- Principal component analysis applied to opinion polls, limitations of correlations</li> <li>- Multiple correspondence analysis applied to opinion polls</li> <li>- Multiple factor analysis: detection of the principal components of a survey</li> </ul>
Inline resources	See course LCOMU2810 on moodle.
Other infos	Regarding the use of artificial intelligence tools, students are expected to use them responsibly, as defined in the 'Note on the Responsible Use of AI,' approved in July 2024 by the ESPO Faculty Board and available on the Moodle page of the course.
Faculty or entity in charge	COMU

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Information and Communication Science and Technology	STIC2M	5		
Master [60] in Information and Communication	COMU2M1	5		
Mineure en statistique et science des données	MINDATA	5		