Title of the training course:

- **230303 Introduction to quantitative methodology**

Organizing center/area leading the course: Deusto International Research School (DIRS) – PhD program in Human Rights: Ethical, Social and Political Challenges

Training category: 5. Methodology and research techniques

Professor/Coordinator of the training course: Edurne Bartolomé

Priority group: First and second year PhD Students

Competences (definition of objectives based on competences):

CG.1. *To prepare an application, to design, implement, manage, develop, and evaluate research projects related to topics in the fields of international migrations and social cohesion, making use of skills such as searching for information, data-collection, structuring and synthesizing information, data analysis and quality assessment.*

Expected Learning outcomes:

- Students identify a research problem and establish the strategy to define the research questions, working hypothesis and research methods that seem adequate in each case.

- They relate and connect a given research question with the hypotheses and decide on a rigorous and scientific basis and a suitable method to carry out the research.

- Students derive the relevant conclusions from the results of the research project and connect them back with the research question, hypotheses and data analyses.

CE.3. *To design and apply, in adequate ways, the methods of the Social Sciences at the different stages of a research project (formulating hypotheses, considering various techniques, designing and analyzing the results) related to international migrations and social cohesion..*

Expected learning outcomes:

- Students connect existing theories from the literature with their object of study and provide an argumentation for their theoretical model.

- They are able to discern the advantages and shortcomings of different theories and methodological techniques.

- They formulate adequate research questions and present the working hypotheses that will allow them to move deeper in their knowledge of the topics under analysis.

- They understand and apply a logical sequence of the scientific method in terms of hypothesis formulation and hypothesis testing.

- They carry out basic statistical data analyses and define which the most suitable analysis to conduct is.

- They are able to interpret statistical outputs and relate them to their object of study, as well as to judge the adequacy of the methods in view of the prescribed standards of quality.

Pre-requisites / prior knowledge: None

Contents:
- Introduction: The scientific method, epistemological perspective.
- Individuals, variables, datasets, descriptives
- Introduction to SPSS. Data entry, data checking and editing.
- Frequencies and descriptive statistics
- The logic of inference
- Association between nominal variables (crosstabulation and Chi sq)
- Association between count variables (correlation),
- Compare means (T-Test and One-way Anova)

Level of the course: Introductory

Methodology: Lectures and practical sessions in the computer lab

Language of instruction: English

Mode of instruction: In-class and virtual attendance

Number of places:
PhD students: No maximum
Personnel: No

Assessment:
The assessment will be the formulation of a Research Question, with the use of a Questionnaire and dataset. The students will be provided with a questionnaire and a dataset and they will

have to use the research tools learnt in the classroom in order to analyze the data, and write a report on the topic chosen, the methods used, and the final formulation of concluding remarks on the topic.

50% of the final grade will be the final work explained above
40% will correspond to the performance in the practical session
10% will correspond to attendance and participation.

Number of hours: 10 hours

Bilbao Campus:

- Month when the course begins: January 2024
- Dates: 10, 17, 24, 31 January
- Time: 15:00-17:30