Master's in Innovation and Research for Sustainability (MIRS)

Department of Social Sciences

Research Methods and Masters Project
<u>2025-26</u>

Schedule:
> Tuesdays, 18:00 -19:30
> Francesinhas 2, 2.02

Lecturers:
> Amílcar Moreira (Course Unit Coordinator)
> Inês Faria

Overall Goals

This Course Unit is designed with the following overall goals in mind:

- Help students to choose the (type of) Master's Project* they will carry out.
- Help students to choose the topic of their Master's Project.
- Provide students with foundational methodological skills to successfully complete their Master's Project.
- Provide students with necessary skills to collect, qualitative and quantitative, data for their Masters' Project.

* "Master's Project" is used in this document and throughout our course to stand for "Masters Final Work" (or MFW), which is the formal definition adopted by ISEG. You should be acquainted with all the information on MFW available in this link and in this one too (specially article 15).

Specific Goals

At the end of this curricular unit, students should have acquired the following skills:

- Have chosen the type of Master's Project and the topic you will be working on.
- Be able to conduct an Exploratory Bibliographic Search, and write 'Annotated Bibliographies', which will help you in narrowing the topic of your Master's Project.
- Be able to conduct a Systematic Bibliographic Search, and to use an 'Article Matrix' to systematize evidence in literature.
- Be able to define the Research Question (and Hypothesis) that will guide the data collection and analysis in your Master's Project.
- Know what are the key approaches for collecting (qualitative and quantitative) data and how to implement them.

How is the Course Unit Organised

This Course Unit is structured in line with the 'Problem-Based Learning' approach, which aims to maximize the results of the learning process through the active involvement of students in the pedagogical process. The assessment model was designed to support this learning approach.

Programme Structure

Class	Topic	Learning Goals
1	Introduction	• Familiarize students with the objectives, structure and evaluation model of the Course Unit. • Familiarize students with the types of Master's Project that they can choose to develop. • Familiarise students with the rationale of conducing a Master's Project. • Familiarise students with the issues concerning the choice of, and relationship with a Supervisor.
2	Gaining Information on Your Topic of Interest	• Familiarise students with potential sources of inspiration for choosing their topic. • Introduce students on how to conduct an Exploratory Bibliographic Search. • Introduce students to tools and techniques for reading and mapping scientific papers. • Familiarise students with academic referencing rules.
3	Conducting a Review of the Literature: Where to start?	• Familiarise students with the critical role of the Review of Literature in the Master's Project. • Familiarise students with the notion of Research Gaps and how this should drive the structuring of the Review of Literature. • Familiarise students with relevant guidelines for structuring the Review of the Literature chapter.
4	Conducting a Review of the Literature: A systematic approach	• Familiarise students with the aims and key steps in a systematic bibliographic search. • Familiarise Students with the PRYSMA Protocol as a tool for conducting a systematic bibliographic search; • Introduce students to the Scopus. • Introduce students to the 'Article Matrix' as a tool for mapping research literature.

Class	Topic	Learning Goals
5	Research Problem, Research Question & Objectives	• Familiarise students with the distinction between Research Problem, Research Question and Objectives. • Introduce students to guidelines and tools for writing clear Research Questions and Objectives. • Familiarise students with to the role of the Analytical Model as the foundation for establishing Research Hypothesis.
6	Choosing a Research Design	• Introduce students to the notion of Research Design and its role in the Master's Project. • Introduce students to the different ways in which Research Design is conceptualized in quantitative and qualitative approaches • Familiarize students with the most important Research Designs in the qualitative tradition of Social Sciences (case-study, the ethnographic approach). • Familiarize students with the most important Research Designs in the qualitative tradition of Social Sciences (descriptive designs, cross-sectional designs, experimental designs, longitudinal designs).
7	Data Collection Strategies: Qualitative Data (I)	• Introduce students to the distinction between primary and secondary qualitative data. • Familiarize students with the key tools/approaches in the collection of qualitative primary data (semi-directive interviews, focus groups, journey mapping). • Explore ethical issues in the collection of qualitative primary.
8	Data Collection Strategies: Qualitative Data (II)	• Familiarize students with the key approaches in the collection qualitative primary data using digital media (digital journaling, social media analysis, mapping). • Explore ethical issues in the collection of qualitative primary data through digital media.
9	Data Collection Strategies: Quantitative Data (I)	• Introduce students to the distinction between quantitative primary and secondary data; • Introduce students to the rules guiding the design of questionnaires. • Familiarise students with the different sampling techniques.
10	Data Collection Strategies: Quantitative Data (II)	• Familiarise students with the different types of quantitative secondary data. • Familiarise students with the guidelines for choosing an d assessing the quality of quantitative secondary data; • Introduce students to Composite Indicators as a technique for representing social reality with secondary data; • Familiarize students with the key steps in building an Composite Indicator.

Class	Topic	• Learning Goals
11	Reporting Findings: Designing Tables & Graphs	• Familiarise students with guidelines for selecting the format (tables vs. Graphs) to present data; • Introduce students to the importance of the Scale of Measurement as criteria for planning the presentation of data; • Introduce students to the different types of graphs and their uses. • Familiarise students with the rules for designing graphs and tables.
12	Systematic Reviews of Literature/Evidence	• Introduce students the most important forms of Reviews of Literature/Evidence (Bibliometric Analysis, Narrative Reviews, Systematic Reviews, Meta Analysis) • Provide students with an in-depth understanding of the aims and uses of Bibliometric Analysis. • Familiarise students with the VOS as a tool for conducting Bibliometric Analysis.

Internal Deadline

By the 2ⁿᵈ of March 2026, students are required to complete a Google Sheets file, made available by the Course Unit Coordinator, with the following information
- Type of Master's Project (Dissertation, Project, Internship Report);
- Topic.

Continuous Evaluation

Students will be assessed following of a Continuous Evaluation model, structured as follows:

- **Course 'Tasks'**

  Students are required to complete 2 Tasks:
  - An **Annotated Bibliography**, of a paper on a topic of the student's choice*, to be submitted by the **9ᵗʰ of February, at 23:59**;
  - A **Systematic Bibliographic Search**, using Scopus* (students need to submit a completed PRYSMA Protocol, and the resulting list of references using the Harvard Referencing Style), to be submitted by the **9ᵗʰ of March, at 23:59**.

  * The topics of the papers should clearly be within the boundaries and in relation to the relevant MIRS topics.

The relative weight for each Task is as follows:
  - Annotated Bibliography - maximum of 1 points on a scale of 0 to 20.
  - Systematic Bibliographic Search - maximum of 4 points on a scale of 0 to 20.;

- **Research Proposal**

Students are required to submit a Research Proposal covering the following points*:
- o Cover page
- o Introduction
- o Brief Review of the Literature (Max. 1000 words)
- o Research Problem / Research Question / Objectives
- o Brief Outline of the Methodological Approach
- o Bibliography

* A more detailed outline will be provided during the semester.

The Research Proposal should have a maximum of 2000 words, excluding bibliographic references. The Research Proposal must be submitted on **June 5th at 11:59 PM.**
The grade for the 'Research Proposal' represents a maximum of 15 points on a scale of 0 to 20.

The grades for the Continuous Evaluation will be published during the Regular Assessment Period.

Individual Written Exam

Students who:
- Formally opt out of the Continuous Evaluation, as by email to the Course Unit Coordinator by the 27th of February, at 23:59;
- Fail to obtain a passing grade (10 points out of 20) at the end of the Continuous Evaluation;
- Whish to improve the grade obtained at the end of the Continuous Evaluation.

Will have to submit to an individual written exam, covering all the contents taught in the course, during the Repeat Assessment Period.

Key References *

Babbie, E. (2016) *The Practice of Social Research*. Boston: Cengage Learning.
Bryman, A. (2012) *Social Research Methods*. New York: Oxford University Press.
Cassel, C., Cunliffe, A., Grandy, G. (2018) *Qualitative Business and Management Research Methods: History and Traditions*. London: Sage.
Coghlan, D. & Brydon-Miller. (2014). *Sage Encyclopedia of Action Research*. London: SAGE
Creswell, J. W. (2013) *Qualitative Inquiry & Research Design: Choosing among Five Approaches*. London: Sage (3rd edition).
Hennink, M., Hutter, I. and Bailey, A. (2020) *Qualitative Research Methods*. SAGE Publications Limited, Thousand Oaks.
Kumar, R. (2012) *Research Methodology: A Step-by-Step Guide for Beginners*. London: Sage.
Sarantakos, S. (2012) Social Research. London: Red Globe Press.

* Additional bibliography will be provided per topic covered.

Appendix: Course Schedule

Class Nr.	Date	Topic	Lecturer
1	2026-01-27	Introduction	Amílcar Moreira
2	2026-02-03	Gaining Information on Your Topic of Interest	Inês Faria
3	2026-02-10	Conducting a Review of the Literature: Where to start?	Amílcar Moreira
4	2026-02-24	Conducting a Review of the Literature: A systematic approach	Inês Faria
5	2026-03-03	Research Problem, Research Question & Objectives	Amílcar Moreira
6	2026-03-10	Choosing a Research Design	Amílcar Moreira
7	2026-03-17	Data Collection Strategies: Qualitative Data (I)	Inês Faria
8	2026-03-24	Data Collection Strategies: Qualitative Data (II)	Inês Faria
9	2026-04-07	Data Collection Strategies: Quantitative Data (I)	Amílcar Moreira
10	2026-04-14	Data Collection Strategies: Quantitative Data (II)	Amílcar Moreira
11	2026-04-21	Reporting Findings: Designing Tables & Graphs	Amílcar Moreira
12	2026-04-28	Systematic Reviews of Literature/Evidence	Amílcar Moreira