



NOVA

IMS

Information
Management
School

Research Methodologies

Master in Data Science and Advanced Analytics

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Research Methodologies Objectives

- Prepare students to conduct the different stages of a research or work project, which include the planning of the proposed work, the definition of objectives and methods and the preparation of the final report (dissertation, thesis, project, or internship report).

Thesis Seminar Course Objectives

- LO1: Understand the difference between dissertation, work project or internship report
- LO2: Be able to develop a research problem and related questions
- LO3: Know how to perform a literature review
- LO4: Frame the problem with the correct research methodology
- LO5: Be able to write and present a one-pager about the thesis

Structure of RM

- RM has two parts
 - Part 1 from September 15th to October 20th 2022
 - All class together
 - Part 2 from November 2022 until June 2023
 - Groups of 12 students and a tutor
 - Whenever possible the tutor will be your supervisor
 - If not possible, another professor guiding your work

Research Methodologies part1 Syllabus

1. Introduction to research work.
 - a) The nature of research
 - b) The investigation process
2. Topic formulation and research objectives
 - a) A good research topic
 - b) The generation of ideas
 - c) Research questions, goals and objectives
3. The Critical review of the literature
 - a) Critical review
 - b) Literature search tools and sources
 - c) Norms for citation and references
4. Methodological approaches in scientific research. Strategies and methods for research
 - a) Approaches to research
 - b) Research designs
5. Presentation of the final work: structure, content, and editing rules
 - a) Report structure
 - b) Organization
 - c) Writing: editing and norms

Research Methodologies part 1 Planning

#	date	Time	Topic
1	15-Sep-22	14:00-16:00	Introduction to RM The research work
2	22-Sep-22	14:00-16:00	Topic formulation and research objectives Writing in science
3	29-Sep-22	14:00-16:00	The Critical review of the literature How to reference other people's work
4	06-Oct-22	14:00-16:00	Methodological approaches in scientific research. Strategies and methods for research Presentation of the final work: structure, content, and editing rules
5	13-Oct-22	14:00-16:00	Ethics in Data Science master thesis
6	20-Oct-22	14:00-16:00	Online evaluation One pager & Master thesis proposal considerations

Research Methodologies Evaluation

Each student must choose a topic on a subject of interest in the master specialisation

- Identify a problem of study within the chosen topic
- Define the objectives to be achieved in the development of the thesis/research project/scientific internship
- The proposal must be submitted to Moodle by October 22th, 2022 on Moodle.
- Template is available also on moodle

Research Methodologies Evaluation

- 1st part: 35%
 - Online Quiz (15%)
 - OnePager (20%)
- 2nd part: 65%
 - Introduction + Literature Review & Conceptual Model/Artifact (20%)
 - Methodology (12,5%)
 - Results and Discussion (25%)
 - Conclusions (7,5%)

Bibliography

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