

Course Unit	Thesis; Final Project; Internship		Field of study	Renewable Energy and Energetic Efficiency	
Master in	Renewable Energy and Energetic Efficiency		School	School of Technology and Management	
Academic Year	2023/2024	Year of study	2	Level	2-2
Type	Annual	Semester	-	ECTS credits	42.0
Workload (hours)			1 134	Contact hours	
			T	-	TP
			20	PL	-
			TC	-	S
			42	E	-
			OT	90	O
			-	-	-

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Florbela Alexandra Pires Fernandes, João Paulo Coelho, Ângela Paula Barbosa da Silva Ferreira

### Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Demonstrate the acquisition of knowledge on research methodologies.
2. Identify and interpret the importance of innovation for engineering and technology entrepreneurship activities.
3. Acquire knowledge on emerging themes in Renewable Energy and Energy Efficiency by attending seminars/workshops.
4. Acquire competencies for elaborating a project in the area of Renewable Energy and Energy Efficiency, preferably with professional application.
5. Develop a project, in a laboratory or professional environment, by publishing the results obtained in a written report.

### Prerequisites

Before the course unit the learner is expected to be able to:

Know the fundamentals of Renewable Energy Engineering and Energy Efficiency.

### Course contents

Research methodologies and preliminary project. Seminars/workshops. Scientific research work or professional environment work.

### Course contents (extended version)

1. Research methodologies and project preparation.
  - Processes, methodologies and practices associated with scientific research in engineering.
  - State of the art of a R&D subject or professional application.
2. Seminars/workshops.
  - Attendance of seminars/workshops lectured by scientists or professionals from industry and services.
3. Scientific research work or professional environment work.
  - Development of a scientific research with publication of the obtained results.

### Recommended reading

1. K. L. Turabian, A Manual for Writers of Research Papers, Theses, and Dissertations, University of Chicago Press, 9th edition, 2018.
2. U. Eco, How to Write a Thesis, The MIT Press (Translation edition), 2015.
3. M. Azevedo, Teses, Relatórios e Trabalhos Escolares, Sugestões para estruturação da escrita segundo Bolonha, 9.ª edição, Universidade Católica Editora, 2018.
4. R. Kumar, Research Methodology: A Step-by-Step Guide for Beginners, SAGE Publications Ltd, 5th edition, 2019.
5. IEEE, "Reference Guide", IEEE Publication Operations, USA, 2023

### Teaching and learning methods

Seminars/workshops on the latest developments in Renewable Energy and Energy Efficiency. Tutorial guidance throughout the academic period that follows the work of scientific research thesis/project/internship.

### Assessment methods

- In accordance with Regulatory Standards - Masters. - (Regular, Student Worker) (Final, Supplementary, Special)

### Language of instruction

Portuguese, with additional English support for foreign students.

### Electronic validation

Ângela Paula Barbosa da Silva Ferreira, Florbela Alexandra Pires Fernandes, João Paulo Coelho	José Luís Sousa de Magalhães Lima	João Eduardo Pinto Castro Ribeiro	José Carlos Rufino Amaro
05-03-2024	06-03-2024	12-03-2024	16-03-2024