



Universidad  
Politécnica  
de Cartagena

Campus  
de Excelencia  
Internacional



## HOW TO DESIGN A GOOD RESEARCH PLAN

Actividades Transversales de Doctorado  
Universidad Politécnica de Cartagena

## 1. General course information

Name	How to Design a Good Research Plan / Cómo diseñar un buen plan de investigación		
Level	Doctorado		
Academic Year	2023-2024		
University	Universidad Politécnica de Cartagena		
Language	Español		
ECTS	1	hours / ECTS	Total hours 30

## 2. Lecture data

Lecturer in charge	Juan Suardíaz Muro		
Department/Service	Electronics Technology		
Knowledge area	Electronics Technology		
Office location			
Telephone	+34 968 32 53 80	Fax	+34 968 32 53 45
email	juan.suardiaz@upct.es		
URL / WEB	<a href="https://personas.upct.es/perfil/juan.suardiaz">https://personas.upct.es/perfil/juan.suardiaz</a>		
Office hours			

## 3. Dates

On line
---------

## 4. Course objectives

Royal Decree 576/2023, of July 4<sup>th</sup>, updated the Royal Decree (RD) 99/2011, of January 28<sup>th</sup>, which regulates the official teaching of a doctorate in Spain, imposes that, prior to the end of the first year, a PhD student will prepare a research plan, endorsed by the tutor and the director of his or her work.

The objective of this transversal activity is to analyse and study the different parts that constitute a research plan, as well as the methodologies and tools, to acquire the competencies recommended for a proper design and redaction of this document.

## 5. Syllabus

1. The concept of scientific research. Characteristics of scientific research.
2. The scientific method. Types of research methods.
3. Legal framework of research in Spain. Royal decrees 99/2011 and 576/2023.
4. Internal regulations for the completion of the doctoral thesis and its different administrative stages within the UPCT
5. Most important forms and deadlines
6. Teseo and UNESCO codes
7. Open Science and FAIR principles
8. Data repositories (Zenodo, Figshare)
9. The research plan document. Recommended structure
10. Setting the Theoretical Framework.
11. Setting the Methodological Framework.
12. Working Plan.

## 6. Practical programme

1. Introduction to ORCID and the Research ID.
2. Searching Tools for writing the Theoretical Framework.
3. Tools for designing a working plan. Gantt diagrams.

## 7. Hours distribution

Activity	Location	Student work	Hours
<b>Syllabus</b>	Virtual	Attend Virtual class	<b>7</b>
		Homework: study of the theory contents	<b>7</b>
<b>Practice</b>	Virtual	Attend Virtual Practice	<b>3</b>
		Homework: practical problems resolution	<b>10</b>
<b>Tutoring</b>	Virtual	Virtual ....	<b>3</b>
			<b>30</b>

## 8. System of evaluation

Intermediate work (10%): Working reports.

Final Work (70%): A proposal of research plan will be reported and presented by each student.

Final test (20%): A final test about contents is mandatory for achieving the final qualification