**Art. 11.6 Royal Decree 99/2011, of 28 January, which regulates official doctoral studies.**

1. Before the end of the first year, counted from the date of enrolment, the PhD student, with the assistance of his or her Director and tutor, will draw up a document that includes a research plan and a personal training plan. The research plan will include at least the methodology to be used and the objectives to be achieved, as well as the means and timetable for achieving them. The personal training plan of the doctoral student will contain a forecast of the different training activities to be carried out during the doctoral thesis (courses, seminars, mobility activities, etc.). This document may be improved and detailed throughout their stay on the programme and must be endorsed by the Director and the tutor.
2. On an annual basis, the programme's Academic Committee will evaluate the progress of the doctoral student in terms of the research plan and the activities document, together with the reports to be issued by the Director and the tutor for this purpose. In the event that the Academic Committee detects significant shortcomings, the doctoral student must be reassessed within a maximum period of six months. If the shortcomings continue to occur, the Academic Committee must issue a reasoned report, after hearing the interested party, and the doctoral student will be permanently withdrawn from the programme.

RESEARCH PLAN AND TRAINING PLAN

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| **1. DOCTORAL STUDENT DETAILS** |
| Surname: | Name: |
| DNI/Passport/NIE: | Telephone: | E-mail: |
| ORCID ID (Mandatory): |

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| **2. ACADEMIC DATA** |
| Doctoral Programme: |
| Academic year: | Date of issue: |
| Tutor: |
| Director: |
| Co-director (if applicable): |
| Co-director (if applicable): |

In accordance with articles 15.1 and 10.12 of the Regulations governing official doctoral studies at the Polytechnic University of Cartagena, the following Research and Training plans are presented

# RESEARCH PLAN

*USE AS MUCH SPACE AS NECESSARY*

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| **Title of the thesis proposal** |

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| **Summary of the proposal** |
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| **Intended objectives** |
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| **State of the art of the problem** |
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| **Work plan with an estimated timetable** |
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| **Methodology to be used** |
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| **Bibliographic research (state of the art)** |
|  |
| **Five most relevant publications in the specific field of study, if any** |
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| **Subjects and/or courses taken as complementary training during the first academic year of enrolment, if applicable** |
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| **When the work or expected results are subject to research ethics issues (involving people in studies, research on humans, animal experimentation, biosafety, etc.), a favourable report from the university's Research Ethics Committee1 is required for the approval of future versions of this Research Plan.****Is the present Research Plan affected by ethical issues (Y/N)?***The processing of a thesis for defence may be affected if the conditions are met for it to be analysed by the Ethics Committee and it has not been carried out. If you answer 'S', consult the procedures offered by this Committee to obtain a favourable report from it for the successive versions of this Plan.* |
|  |
| **In the framework of Open Science, Research Data Management2 is a concept that encompasses the tasks of collecting, organising, documenting, storing and preserving data used in research. The FAIR (*findable, accessible, interoperable and reusable*) principles apply3 .****Provide an indicative breakdown of the data that may be derived during the development of the thesis and some criteria regarding data management (level of visibility, formats, planned repositories such as Zenodo, Figshare, etc.) to facilitate open access to other researchers.** |
|  |

# TRAINING PLAN

*USE AS MUCH SPACE AS NECESSARY*

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| **Detail the Training Plan in terms of courses, seminars, mobility actions, attendance at scientific meetings, methodological training, etc.***The plan:** *should be as detailed as possible in terms of time planning and distinguishing the degree of importance of each of the activities for the training of the doctoral student.*
* *It should indicate which competences from the list it contributes to the training of the doctoral student.*
 |
| *(Minimum length 250 words)* |

1 https://[www.upct.es/vicerrectoradoinvestigacion/es/etica](http://www.upct.es/vicerrectoradoinvestigacion/es/etica)

2 https://biblioguias.upct.es/datos-de-investigacion

3 https://ec.europa.eu/research/participants/data/ref/h2020/grants\_manual/hi/oa\_pilot/h2020-hi-oa-data- mgt\_en.pdf

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|  |
| List of competences |
| *C1. Systematic understanding of a field of study and mastery of research skills and methods related to that field.**C2. Ability to conceive, design or create, implement and adopt a substantial research or creative process.**C3. Ability to contribute to the expansion of the frontiers of knowledge through original research. C4. Ability to critically analyse, evaluate and synthesise new and complex ideas.**C5. Ability to communicate with the academic and scientific community and with society in general about their fields of knowledge in the modes and languages commonly used in their international scientific community.**C6. Ability to promote, in academic and professional contexts, scientific, technological, social, artistic or cultural progress within a knowledge-based society.**C7. Ability to promote Open Science and Citizen Science, in accordance with article 12 of Organic Law 2/2023 of 22 March, as a way of contributing to the consideration of scientific knowledge as a common good, through the evaluation of transversal activities carried out by the PhD student related to different dimensions of Open Science and Citizen Science, as well as the training acquired in these disciplines in the form of micro-credentials or similar.**C8. Dealing with contexts in which there is little specific information.**C9. Find the key questions that need to be answered to solve a complex problem.**C10. Design, create, develop and undertake novel and innovative projects in their field of knowledge. C11. Work both in a team and autonomously in an international or multidisciplinary context.**C12. Integrate knowledge, deal with complexity and make judgements with limited information. C13. Intellectual critique and defence of solutions.* |

THIS DOCUMENT WILL BE UPLOADED INTO THE RAPI APPLICATION FOR EVALUATION SO IT DOES NOT NEED TO BE SIGNED.