UNIVERSITAT ROVIRA i VIRGILI
Escola de Doctorat

INTERDISCIPLINARY TRAINING PROGRAMME OF THE URV DOCTORAL SCHOOL

Approved by the Doctoral School Steering Committee (CDE) on 28/03/2025

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1. INTRODUCTION

The purpose of doctoral studies is the comprehensive training of future researchers in scientific, technical, humanistic or artistic fields so that they become independent researchers who are integrated into the social and economic fabric of society and contribute to its progress. During this training period, and as a result of this comprehensive training, the doctoral student prepares and defends their doctoral thesis, which is an original piece of research.

The doctoral student's main activity is quality scientific research. To carry this out, they must acquire both basic and specific skills and competences in their area of study, as well as interdisciplinary competences that will help them develop their research and join the labour market of the knowledge-based society.

Students who register for a URV doctoral programme receive guidance to help them develop their research plan. This plan must include a personal training plan with (optional and/or compulsory) specific and interdisciplinary activities, arranged chronologically. The supervisors, tutors and academic committee of each doctoral programme play an important role in the design, monitoring and annual evaluation of the research plan, and in the entire process of preparing the thesis.

In order to offer a wide range of quality, adaptable, interdisciplinary, specific and innovative training that allows doctoral students to prepare their doctoral theses and improve their professional skills as doctors in the knowledge-based society, the URV Doctoral School has

designed a comprehensive **Training Program** with training activities that are carried out during the preparation of the doctoral thesis. These activities are divided into two blocks:

- **Specific training** for each field of study, which is designed according to the needs of each doctoral programme. This block includes the training the student needs to prepare a thesis, the dissemination of scientific production, the student's mobility activities throughout their doctoral programme and their training in subjects relating to science, methodology and transfer and that are specific to the doctoral programme.

- **Interdisciplinary training**, common to all doctoral programmes. This block includes activities that promote the student's professional and personal growth, enhance their personal, intercultural, interdisciplinary and knowledge transfer skills outside the scope of traditional scientific learning, and enable them to plan their future professional career. Each doctoral student chooses these activities with guidance from their supervisor and tutor.

This document shows the different areas of competences fostered by the URV's doctoral studies and presents the URV Doctoral School's **Interdisciplinary Training Programme**.

2. COMPETENCIES AND AREAS OF TRAINING

According to Royal Decree 99/2011, of 28 January, which regulates official doctoral studies, and the amendments made thereto by Royal Decree 576/2023, of 4 July, doctoral studies must ensure that the doctoral student acquires at least the following basic skills:

a) Systematic understanding of an area of study and mastery of the skills and research methods related to that area.

b) Ability to conceptualise, design, create, implement and adopt a substantial process of research or creation.

c) Capacity to contribute to the expansion of the frontiers of knowledge through original research.

d) Ability to carry out a critical analysis, evaluation and synthesis of new and complex ideas.

e) Ability to communicate with the academic and scientific community and with society in general regarding their areas of knowledge in the modes and languages commonly used in their international scientific community.

f) Capacity to promote scientific, technological, social, artistic or cultural progress in the academic and professional contexts of a knowledge-based society.

g) Capacity to promote Open Science and Citizen Science by evaluating interdisciplinary activities related to different dimensions of these initiatives and by applying the skills acquired in both areas through micro-credentials or similar formats, thus contributing to the consideration of scientific knowledge as a common good, in accordance with Article 12 of Organic Law 2/2023, of 22 March.

The same Royal Decree 99/2011, of 28 January, amended by Royal Decree 576/2023, of 4 July, also indicates that doctoral programmes will include organised aspects of research training that will not need to be structured into ECTS credits and will include both interdisciplinary training and training specific to each programme, although in all cases research will remain the main activity of the doctoral student. The training activities carried out by the doctoral student will be included in the doctoral student's activity document. All these competences are included in the **Specific Training Plan** of each URV doctoral programme and also in the **Interdisciplinary Training Programme** of the URV Doctoral School.

Furthermore, the European guidelines on doctoral training aim to improve the training and recognition of the skills acquired during the doctorate so that new doctors obtain an interdisciplinary curriculum that is attractive within and outside the academic world. This means that doctoral studies must include both training to be a university professor and training in interdisciplinary skills that may be necessary in other areas of work.

In this regard, the **Interdisciplinary Training Programme** of the URV's Doctoral School responds to the training needs of future doctors by facilitating their acquisition of skills in 10 areas:

1 Institutional knowledge
2 Professional development
3 Teaching
4 Business and entrepreneurship
5 Cognitive skills
6 Communication skills
7 Research
8 Technological and digital resources
9 Interpersonal and collaborative relationships
10 Health and wellbeing

In addition, the interdisciplinary training programme also provides a space in which doctoral students from all scientific areas can meet and get to know each other.

3. AREAS OF INTERDISCIPLINARY TRAINING

Each of the 10 areas of competence acquisition consists of a training block of different topics, which together provide comprehensive and complementary training. Each training area offers training activities that can be renewed each academic year and which constitutes the annual training offer.

Together the 10 training areas of the Interdisciplinary Training Programme determine the different lines of action and the corresponding objectives.

Area	Lines of action	Objectives
1 Institutional knowledge	• Welcome activities • Academic activities to follow-up studies • University social events • Institutional courses on ethics, gender, equality, sustainability, etc.	• To ensure the integration of doctoral students into the URV. • To provide the information needed to guide the activity of new trainee researchers within doctoral programmes.

	• Doctoral degree administrative inquiries • Interdisciplinary doctoral seminar	• To promote the interdisciplinarity of research and of the URV. • To promote the 2030 SDGs. • To introduce good practices and a gender perspective into research.
2 Professional development	• Development and professional skills • Documenting and verifying skills • Managing R&D&I Projects • Identifying and developing missing skills • Leadership and teamwork • Career planning and assessment • Searching and applying for jobs • Writing a CV • Interview techniques • Career opportunities	• To provide tools that improve the student's professional skills and their incorporation into the knowledge-based labour market. • Raise the student's awareness of the need to prepare for a professional career and increase their chances of finding a job through the acquisition of personal and collaborative skills such as work planning, teamwork, leadership, communication, etc.
3 Teaching	• Teaching skills • Teaching innovation • Teaching methodology • Programming and assessment of learning	• To promote the acquisition of teaching skills in terms of planning, design, management and evaluation of training activities. • To provide digital tools and resources for teaching. • To provide tools for accreditation.
4 Business and entrepreneurship	• Professional skills • Business development and management • Intellectual Property Rights • Entrepreneurship • Innovation and knowledge transfer • Legal and business regulations • Patents • Transfer of research results	• To provide knowledge that allows the transfer of knowledge to the labour market. • To understand and know how to use research management processes (patents, agreements, resources, etc.).
5 Cognitive skills	• Abstraction and creativity • Self-knowledge • Analysis and synthesis • Mindfulness • Organization and optimization • Critical thinking and problem solving	• To improve the processing and interpretation of information.
6 Communication skills	• Assertiveness • Science for non-specialist audiences	

	• Academic communication • Communication with the media • Intercultural awareness and communication • Languages • Oral presentations • Academic writing • Social media	• To promote communication skills in both academic and social environments. • To provide guidance on the different levels of communication, namely scientific, written and oral, specialised (articles, conference papers, doctoral theses) and general (scientific dissemination). • To foster good practices and ethical aspects in the publication of results.
7 Research	• Data analysis • Evaluation of scientific production • Open Science • Ethics in research • Gender in research • Data management • Project management and time management • Innovation and creativity • Interdisciplinarity • Intellectual property • Publishing in open access • Publishing • Research funding • Research with a social impact • Writing of funding applications • Sustainability in research • Use and management of bibliography • Technological and digital resources	• To provide tools to improve the research skills that help doctoral students to develop their doctoral theses following the highest quality standards. • To understand and know how to use research management processes (patents, agreements, resources, etc.). • To guide the doctoral student on processes of innovation and knowledge transfer. • To provide tools and resources to design and develop research projects. • To introduce good practices and a gender perspective into research. • To raise awareness of intellectual rights and data protection. • To foster good practices and ethical aspects in the publication of results. • To provide tools to improve the quality of doctoral theses. • To encourage critical thinking and the use of qualitative and quantitative data analysis techniques. • To provide tools and resources to apply for and obtain research funding.
8 Technological and digital resources	• Bibliographic resources and citation managers • Research resources • Resources for data analysis • Teaching resources • Artificial intelligence tools • Technological and digital resources	• To provide digital tools and resources to improve the doctoral student's skills in this area. • To provide tools and resources to do research.

		• To encourage critical thinking and the use of qualitative and quantitative data analysis techniques. • To introduce bibliographic management tools. • To provide digital tools and resources for teaching.
9 Interpersonal and collaborative relationships	• Discipline and perseverance • Conflict management • Independence and responsibility • Leadership and teamwork • Negotiation • Diversity awareness	• To raise awareness of the need to prepare for a professional career and increase the options for finding a job by acquiring personal and collaborative skills, such as work planning, teamwork, leadership skills, communication skills, etc.
10 Health and wellbeing	• Occupational risks • Mental health and emotional wellbeing	• To improve and maintain the doctoral student's good physical and emotional health.

4. TRAINING OFFER

The training offered by the Interdisciplinary Training Programme of the Doctoral School consists of activities structured around the 10 areas mentioned above.

The training offered will be updated throughout the academic year and it is recommended that students check it regularly. Annual and bi-annual activities are also planned.

The organisers reserve the right to cancel an activity if the minimum number of students fail to register.

The Doctoral School will publish a link on their website so that students can access the table of training activities, classified by areas and lines of action.

4.1. FORMAT OF THE ACTIVITIES

The Interdisciplinary Training Programme of the Doctoral School may carry out activities in whatever format the training units consider most appropriate, such as:

1) **Lectures:** for short-term activities aimed at transmitting relevant information to the doctoral student for the improvement of their teaching, research and professional training.

2) **Courses:** for short-term or medium-term activities aimed at providing training to the doctoral student for the improvement of their teaching and research practice. The courses are taught following a previously established syllabus.

3) **Workshop:** for activities that aim to make students reflect on a topic based on teaching, research or transfer practice. The various activities can be classified as:
   - Exchange of experiences and results.
   - Analysis, discussion and conclusions of specific aspects of teaching or research practice.
   - Meeting, reflecting and training activities (workshops, meetings, presentations, seminars, etc.).

4) **Workshops:** for short- or medium-term face-to-face activities aimed at providing practical training on a previously established topic.

4.2. TEACHING FORMATS

The training activities can be offered in different teaching formats, depending on their content and format. The teaching formats are as follows:

a) **Face-to-face:** activities that take place in a specific physical space in which the trainer meets with the students. Apart from certain exceptions, the activities will take place at one of the URV's campuses.

b) **Online:** activities where the trainer meets 3the students online. Apart from certain exceptions, the activities will be carried out on the URV online campus.

c) **Blended:** activities with some parts taught face-to-face and other parts taught online.

d) **Self-learning:** online activities that students access without help from the lecturer and which they can do in their own time.

Whenever possible, these activities will be online.

5. STUDY PROGRAMME

Each activity on the Doctoral School's Interdisciplinary Training Programme includes advice on which stage during the doctoral thesis it is advisable for the student to do the activity.

Each doctoral student, with the help of their thesis supervisor and tutor, must plan their programme of training activities taking into account:

a. the specific activities of their doctoral programme,
b. the skills that a doctoral student must acquire according to the royal decrees (see Section 2. COMPETENCES), and
c. the areas and hours of training that they must complete if they have a contract from the Industrial Doctorates Plan, the University Teacher Training grants (FPU), the PMF-COFUND or any other calls that require the student to take specific training.

5.1 INDUSTRIAL DOCTORATES

Doctoral students who have funding from the Industrial Doctorates Plan of the Catalan Government must complete 60 hours of interdisciplinary training in the following areas:

1) **Project Leadership, coordination and management**, especially negotiation and R&D&I projects. Basic finance, strategic and operational planning, project management and its tools, risk management, time management, teamwork, people management and management skills and mediation (theories, strategies and key concepts).
2) **Transfer of research results**. Legal and regulatory aspects governing the transfer of research results, assessment of the target market and knowledge of the main agents in an industrial sector, communication and relational skills, and development of a feasible transfer strategy.
3) **Creation of new companies.** Preparation of business plans, searching for funding and sponsors, entrepreneurship, business management, and legal and regulatory aspects governing the creation of new companies.
4) **Patents, intellectual and industrial property**. Applicable legislation, procedures for requesting industrial and intellectual property, types of agreements, databases, specifications for different industrial sectors, and other protection mechanisms.

The Catalan Government provides 30 of the 60 hours of compulsory interdisciplinary training.

These activities can be part of the specific training of the doctoral programme.

5.2 UNIVERSITY TEACHER TRAINING GRANTS (FPU)

Students with a University Teacher Training (FPU) contract must take interdisciplinary training courses as indicated by the call, which are usually in the following areas:

1) **Interpersonal skills**. Empathy and critical spirit; motivation and self-belief; awareness of cultural diversity and individual needs; ethical commitment.
2) **Teaching methodologies:** methodological strategies for learning and assessment appropriate to the needs of students; assessment processes; use of information and communication technologies (ICT); improvement of teaching and learning processes.
3) **Teaching planning and management:** content development, training and assessment activities; resources related to teaching/learning; and guidance and tutoring.
4) **Innovation:** New knowledge, perspectives, methodologies and resources on the different aspects of teaching, aimed at improving the quality of the teaching/learning process.

These activities can be part of the specific training of the doctoral programme.

5.3 THE MARTÍ I FRANQUÈS – COFUND PROGRAMME (PMF – COFUND)

Doctoral students on the Martí i Franquès - COFUND Programme must take interdisciplinary training courses as indicated by the call, usually in the following areas:

1) **Personal and social skills.** Communication and interpersonal effectiveness. Multidimensional communication. The art of positive feedback. Self-assertiveness and interpersonal effectiveness. From intelligence to emotional mastery. Creative conflict resolution. Generative listening and extended empathy. Conversation design and expansive emotional spaces.

2) **Leadership and skills in creative collaboration.** Intelligence and collective creation. Social technologies of collective intelligence. Creativity and Innovation. New emerging leadership, thinking to generate innovative ideas and creative collaboration.
3) **Project Management.** Design and management of R&D projects. Patents. Knowledge transfer.
4) **Innovation and entrepreneurship** Management of R&D&I projects. Public policies to promote innovation.

These activities can be part of the specific training of the doctoral programme.

6. TRAINING ASSESSMENT

Assessment of training is a key element and is based on three fundamental areas:

1. The organisation and development of the training activities: knowing how the trainer plans and delivers them, and what the results are.
2. The training content: understanding and monitoring the internal dynamics that are generated during any type of training activity.
3. The transfer of training: knowing how doctoral students use their training in order to analyse its impact on the quality of their teaching and research activity.

The agents involved in this assessment are:

- Doctoral students who have attended the training activity.
- The trainers.
- The managers of the Interdisciplinary Training Programme of the Doctoral School.
- The thesis supervisors and tutors.
- The academic committee of the doctoral programme.

Assessment can be defined as the systematic process for determining to what extent and how the competences and objectives of the training activity have been achieved. If necessary, it can be used to address situations where there is room for improvement during the learning process and to make decisions about grades and certification.

The following table gives a breakdown of the assessment process:

WHAT WE ASSESS	WHO	HOW
Degree of effectiveness: gathering information to assess the extent to which the overall objectives have been achieved. Achievement / Learning	Trainers	Training indicators
Satisfaction with and learning during individualised training activities	Training units	Satisfaction surveys for each activity
Transferability. Relevance of the activities carried out	Thesis supervisors, tutors and academic committees	Doctoral Student Activities Document (DAD)
Suitability	Doctoral School	Training indicators in the Doctoral School's satisfaction surveys*

*Indicators:

- Level of participation of doctoral students in training activities (number of students who have attended each of the suggested courses / total number of students registered), taking into account the capacity of the course.
- Level of student satisfaction with the interdisciplinary training offered.

7. RECOGNITION AND CERTIFICATION OF THE TRAINING

The Universitat Rovira i Virgili ensures that the student's training will be recognised by carrying out the three following phases:

1. The units in charge of the activities will issue certificates of attendance and/or achievement for the training activities, which doctoral students can include in their doctoral student's activity document (DAD).
2. The thesis supervisor and the tutor will write a favourable (or, if necessary, unfavourable) report on the doctoral student's Research Plan (which includes the personal training plan) and on the content they have included in their DAD.
3. The academic committee of the doctoral programme will give a favourable (or, if necessary, unfavourable) assessment of the doctoral student's Research Plan (which includes their personal training plan) and the content they have included in their DAD. To issue this assessment, the academic committee will also rely on the monitoring reports issued by the thesis supervisor and tutor.

8. FUNDING OF THE TRAINING

The budget allocation for each of the training activities will be calculated on the basis of the total budget allocated for the Doctoral School's Interdisciplinary Training Programme.

9. EVALUATION OF THE INTERDISCIPLINARY TRAINING PROGRAMME

The Doctoral School together with the training units will collect the following information in order to analyse the training programme:

- Evolution of the training programme indicators: attendance at each of the training activities and areas of competence acquisition.
- Results of the satisfaction surveys for each of the activities, the Doctoral School survey and the specific survey on the organisation of the Interdisciplinary Training Programme and its usefulness in ensuring that doctoral students acquire the interdisciplinary competences during their doctoral studies.
- Any possible suggestions, complaints and congratulations received regarding the interdisciplinary training programme.
- Possible suggestions for improvement or issues detected by the agents involved.

The Doctoral School uses the information collected to review and analyse each of the previously specified training units annually in order to detect any improvements that need to be made.