



CODE OF GOOD PRACTICE FOR THE SCHOOL AND DOCTORAL PROGRAMMES

(approved by Resolution of the Steering Committee on 30/1/2019, amended by Resolution of the Steering Committee on 22/5/2019)

INTRODUCTION

Article 8 of Royal Decree 99/2011, of 28 January, which regulates official doctoral studies, establishes that "*all members of a Doctoral School must sign a commitment to comply with the Code of Good Practice adopted by the School*".

The University of Zaragoza has drawn up this Code of Good Practice for its Doctoral School and Programmes as a suitable instrument for channelling relations between doctoral students, the researchers responsible for their training and the University, through the Doctoral School.

The Code of Good Practice, inspired by the European Charter for Researchers, is a complementary instrument to existing regulations (mainly the Internal Regulations of the Doctoral School) and aims to generate a common culture that will increase the quality of doctoral training and contribute to rigour, respect, responsibility and integrity in the development of scientific activity. This code does not intend to enter into legal or ethical competences of any other nature, which may fall within the scope of action of other bodies, services and committees of the University.

Given the uniqueness of doctoral training, in which the learning process combines the acquisition and generation of knowledge, this code should be understood as a complement to the University of Zaragoza's Code of Good Practice in Research.

GENERAL PRINCIPLES AND REQUIREMENTS APPLICABLE TO DOCTORAL TRAINING

1) Basic principles

The aim of doctoral studies is to train capable researchers who can be incorporated into the national or international R+D+i system, whether within or outside the traditional academic world. As a public university, we must guarantee that both the human and economic resources invested in doctoral training are oriented towards this goal, and we advise against the start of doctoral theses that deviate from it or those of dubious viability. For this reason, it is also essential to carry out an adequate selection of candidates to develop a doctoral thesis.

The university should promote the recognition of doctoral students as professionals who make key contributions to the creation of new knowledge and play an essential role in the research system. For this reason, it should encourage theses to be carried out in the modality of dedication to

full-time under the protection and funding of specific pre-doctoral contracts. All this without detriment to the recognition of the effort involved in carrying out a thesis on a part-time basis or without adequate funding, for those who seek to strengthen their professional training in the field of R&D&I.

Dissertation supervisors, thesis supervisors and doctoral candidates should focus their work on expanding the frontiers of scientific knowledge and seeking the good of humanity, in a context that guarantees freedoms of thought and expression, as well as the freedom to determine methods of problem solving, within the framework of recognised ethical principles and practices and within any existing professional obligations and material constraints.

Supervisors and tutors must promote scientific excellence in the doctoral theses they supervise, encouraging the integration of doctoral students in research groups and networks, favouring their research career and their national and international mobility.

The Academic Committees are responsible for the definition, updating, quality and coordination of the programmes, the supervision of research progress, the training of doctoral students and the authorisation of the presentation of theses. Their decisions are fundamental for the correct development of the programmes. They must therefore be made up of appropriate experts in the different fields of research of the programme, meet as often as necessary in each case and take minutes of all the agreements adopted. These committees shall invite to their meetings the persons they consider appropriate for the best performance of their functions.

The different members of the Doctoral School will collaborate in the quality assessment processes foreseen in the internal quality assurance system.

The University must give due recognition to the work of the different actors involved in the doctoral training process, encourage the proper development of doctoral programmes and monitor, through its Doctoral Commission, the overall quality of doctoral studies.

2) Ethical, social and professional responsibility and transparency

Thesis supervisors, thesis supervisors and doctoral students should make every effort to ensure that their work is relevant to society, is based on principles of equity and social responsibility, and does not duplicate work previously done by others.

Directors, tutors and doctoral students must observe the fundamental ethical principles and practices corresponding to their disciplines, as well as the rules set out in the various codes of ethics, whether national, sectoral or institutional. They must avoid plagiarism of any kind and respect the principle of intellectual and industrial property or joint ownership of data when the research is carried out in collaboration with other researchers.

Doctoral students and their supervisors should ensure that their research activities are made accessible to society, so that they can be understood by non-specialists and thus improve public understanding of science. Direct engagement with society will help society to understand, value and support scientific and technological priorities and needs.

Doctoral candidates should be aware that they are accountable to the doctoral programme, the Doctoral School and the University, as well as to society as a whole. As trainee researchers they must also observe principles of sound, transparent and efficient financial management, and cooperate with any authorised audit of their research. Whenever necessary and upon request

the competent authorities, the methods of collection and analysis, the results and, where appropriate, the detailed data should be open to internal or external scrutiny, while respecting the personal data protection rules in force.

The university must publicise clear and detailed information about its programmes in an appropriate manner. It is advisable to provide a precise description of the lines of research and offers for doctoral theses. It is also advisable that the teaching staff of the programmes authorise public access to their research curricula.

In the case of doctoral students with special educational needs, a report will be requested from the University Office for Attention to Diversity, in order to guarantee equal rights and opportunities. Doctoral students with special educational needs will receive personalised attention, being assessed in each case and, if necessary, the corresponding curricular and workplace adaptations will be made.

3) Doctoral students and their supervisors

The Academic Committees will designate tutors and supervisors to ensure that the task of support and supervision can be carried out properly. As a general rule, each PhD student will have a tutor and a thesis supervisor, who may or may not coincide with the tutor. However, theses may be co-directed by two or (very exceptionally) three supervisors when there are well-founded reasons of an academic or interdisciplinary nature, or when the work is carried out in national or international collaboration. In any case, thesis supervisors must be carrying out appropriate research activity.

Supervisors will only take on the supervision of a thesis when they have the necessary availability to provide effective and adequate monitoring of the PhD student.

Doctoral students and their tutors and thesis supervisors should maintain a regular and structured relationship.

The supervisor will not only guide the PhD student in his/her research work, but also in the development of an appropriate professional career for him/her; he/she will ensure that the student acquires the necessary skills and abilities and will detect possible problems in the development of the doctoral thesis, proposing appropriate solutions to them. For the best possible training, the PhD student should be integrated into a research team that follows lines of work in line with his/her interests.

The doctoral student will follow the guidelines of his/her supervisor, will keep him/her informed of the development of his/her work and his/her initiatives and will carry out the tasks assigned to him/her, within the objectives of his/her training, for the correct functioning of the research team in which he/she carries out his/her research work.

The doctoral student must keep a record of the results and findings of the research work and submit them to his or her supervisor(s), and is entitled to receive feedback and advice according to agreed timetables.

4) Definition and development of the doctoral thesis project

While respecting the student's freedom in the selection of the research topic within the lines of the programme, the director will collaborate with the student in the preparation of his or her research project.

research, which must be innovative and contribute to a significant advance in their field of knowledge. It is recommended that the project be complemented by an appropriate personal training plan for the PhD student. Both documents should be reviewed and updated periodically.

Thesis supervisors must ensure that the established research plan can be carried out within the deadlines established by current legislation, and that the training plan is appropriate to the profile of the PhD student and guarantees their correct doctoral training. They must also facilitate access by the PhD student to the necessary resources for the correct development of the thesis.

Directors and doctoral candidates should be aware of the strategic objectives governing their field of activity and funding mechanisms and should seek all necessary permissions before starting their work or accessing the resources provided.

The supervisor will continuously monitor the student's activity. Tutors and thesis supervisors should devote special attention to their role as *mentors* of the doctoral student and perform this task in accordance with the highest professional standards. Thesis supervisors and tutors should create a constructive and positive relationship with doctoral students in order to establish the necessary conditions for an effective transfer of knowledge and for the successful development of their careers as researchers.

Doctoral students must inform the programme leaders when the doctoral thesis research plan is delayed, redefined or completed, or notify if it has to be abandoned or suspended ahead of schedule.

The Academic Committee will annually evaluate the development of the doctoral project of the PhD student. The coordinator will ensure that this assessment is made known to the PhD student and his/her tutor and supervisor. In this case, the thesis supervisor, in agreement with the thesis supervisor and the programme's Academic Committee, must propose to the PhD student a programme of actions to be taken in order to pass the second annual assessment.

5) Training and professional development

Both supervisors, thesis supervisors and doctoral students should strive to continuously improve their qualifications and competences through regular updates and further training.

In the case of doctoral students, this implies the design of an appropriate personal training plan and participation in the training activities of the programme and the School that lead to the attainment of the set of competences specific to the doctorate, paying special attention to those focused on their foreseeable professional development.

Mobility is an essential value in the training of research staff. Directors and programmes should stimulate and promote the mobility of doctoral students through the establishment of appropriate scientific collaborations, the design of mobility agreements and the search for adequate funding to facilitate such mobility.

The Academic Committees will encourage, as far as possible, the development of doctoral theses within the framework of international co-supervision agreements or with the mention of international doctorate or industrial doctorate.

Directors and tutors must be aware that their work transcends mere scientific advice in their field of specialisation. Therefore, where appropriate, they should strive to acquire the knowledge and skills that will help the doctoral student to receive adequate training for the development of a future professional career as a researcher in a field that will probably not be academic.

The University, through its Doctoral School, will ensure the aforementioned professional development of the doctoral candidate by organising the specific activities necessary for this purpose.

6) Dissemination and exploitation of results

Doctoral students must ensure that the results of their research are disseminated and are of benefit through communications, transfer to other research contexts or, where appropriate, commercialisation, and especially through their dissemination in relevant scientific publications. Likewise, directors and doctoral students will encourage the protection of intellectual property through patents or utility models of public or private ownership.

Thesis supervisors are expected to take the lead in ensuring that the research of the doctoral students they supervise is fruitful and that the results of the theses are disseminated in various scientific forums and through scientific journals and publications.

7) Confidentiality and data protection

When the theses contain data and information that may be considered confidential, the parties involved must sign any confidentiality commitment documents that may be required. The confidentiality and secrecy commitment will remain in force and will be binding even after the end of the administrative or employment relationship between the PhD student and the University of Zaragoza under the terms agreed between the parties.

In cases in which the doctoral thesis research is totally or partially financed by a profit-making entity, the agreements on the intellectual and industrial property rights of the parties and the protocol of economic considerations must be recorded in writing in accordance with the legislation in force and the regulations of the University of Zaragoza. This document must guarantee the rights of the doctoral student and his/her doctoral thesis supervisor.

In the event that the development of the thesis requires the processing of personal data, the rules, protocols and instructions required for their protection must be followed with the utmost rigour.

8) Security

Thesis supervisors and doctoral candidates must at all times follow safe working practices, in accordance with current legislation, including the adoption of the necessary precautions regarding personal and environmental health and safety.

Where appropriate, they shall take the necessary precautions for the proper preservation of the information.

9) The doctoral thesis document

The doctoral student is ultimately responsible for the development and writing of the doctoral thesis.

It is possible, and generally recommended, that part of the work included in the doctoral thesis has been previously published by the author, either alone or in co-authorship. This fact must be clearly reflected in the thesis and the PhD student will only incorporate as his/her own that part of the work for which he/she is responsible. Other aspects may be incorporated following the usual method of citation and acknowledgement and the principles of intellectual property protection.

There are unacceptable practices in the doctoral thesis document. These include the invention and/or falsification of results and plagiarism. Should any of these practices be demonstrated in a doctoral thesis after the corresponding informative dossier, these facts would be reported to the competent authority for the appropriate purposes, including the possible revocation of the doctoral degree and the disqualification of the supervisor from supervising doctoral theses.

The programme's Academic Committee is responsible for admitting a doctoral thesis for processing. To this end, it must assess its contributions to knowledge of the field in which it has been developed, as well as the quality of its writing and presentation. If necessary, external expert advice or the use of appropriate technological tools may be used. In particular, it is recommended that all doctoral theses undergo a plagiarism control programme prior to their processing.

The thesis must be deposited in sufficient time so that its study by the examining board and its processing can be carried out properly, allowing time for each of the actors involved to perform their role. In any case, the deadlines established in the thesis regulations regarding its deposit and defence must be respected.

The academic committees are responsible for proposing the panel that will assess the thesis. These panels must be made up of specialists with recognised experience in the field of the thesis. In general, the participation of international experts in the panels that judge the doctoral thesis work is desirable.

The defence event must be adequately publicised in order to facilitate attendance by the PhD programme's teaching staff.

10) Contractual and legal obligations

Directors and doctoral students must be aware of the regulations - national, sectoral or institutional - governing the conditions of training and/or work in the context of the doctoral thesis. This includes regulations on intellectual and industrial property rights and the requirements and conditions of potential sponsors or funding bodies. They must comply with these regulations by delivering the required results in accordance with the terms and conditions of the possible agreement or equivalent document and the doctoral commitment document.

Particularly when the research to be carried out involves the use of human beings and human samples, the handling of personal data, animal experimentation, biological agents or genetically modified organisms, account shall be taken of the legislation in force and the reports, permits and supervision of any committees regulating these scientific practices in their fields.

11) Conflict resolution

The Doctoral Commission is the body in charge of resolving academic complaints about doctoral studies.



However, as the highest authorities responsible for the programme, the Academic Committees shall adopt the appropriate decisions to prevent, avoid and solve, if possible, the different conflicts that may arise in the development of a doctoral thesis.

Final note: References contained in this Code in the masculine gender shall also be understood as references to the feminine gender.