

Code of Good Practice in Research

1. Preamble

The UV Statutes (Article 142) establish that research plays an essential role at the Universitat de València as the foundation of teaching, a means of social progress and the basis of knowledge transfer.

Aims include enhancing basic knowledge and the well-being of society with preferential attention to reality and the needs analysis of the Valencian Community. In addition, training researchers for their subsequent incorporation into private and public research centres or to the rest of the productive system is also strived for. Another objective is the development of a critical culture transforming social reality that respects cultural diversity and democratic equality.

Research must meet the requirements of originality and documentation which are inherit, and be based on:

-The ethical values of society in which research is developed and, in particular, intellectual and material development of knowledge progress, peace, equality between women and men and the ecological defence of the environment.

-The freedom of researchers to work in the field of knowledge that they desire.

These are the principles that, in accordance with the UV Statutes, should inspire research activity.

In current scientific practice, however, new responsibilities are being outlined in the national and international context for both scientific personnel and for the bodies and institutions that plan and manage research or those that allocate resources from primarily public funds which must be properly accounted for. This is in line with *Recomendaciones del Comité de Bioética de España* (Recommendations of the Spanish Bioethics Committee), advising the adoption of a Code of Good Practice in Research that fosters scientific activity within a framework based on rigour, respect for standards and responsibility and favours the prevention of misconduct that may threaten research integrity.

2. Purpose and scope

This Code of Good Practice in Research consists of a set of principles, norms, recommendations and commitments related to the conduct of scientific activity. The Code is designed to ensure that research is carried out under current legislation and with the attitude, conduct, ethical commitment and scientific integrity that high-quality research deserves, without being subject to personal or group interests. Its content is complementary to that of legal provisions.

This document sets forth a general framework for the UV community engaged in research, innovation and transfer activities of any nature and for those individuals who are not part of the UV but who take part in its research activities.

Its main objectives are the following:

- 1) To monitor the quality of research conducted at the UV.
- 2) To promote the highest standards of rigour, honesty, responsibility and integrity in research carried out at the UV.
- 3) To nurture a research culture based on good scientific practice.
- 4) To avoid possible conflicts arising from research development.

In the event of a conflict, it shall be resolved by the UV Ethics Committee at the request of any of the parties, in compliance with the procedure that is authorised for this purpose, without prejudice to the possibility of mediation from the Vice-Principal with competence in research matters or the UV Ombuds Office, or judicial authorities.

3. Values and basic principles of research at the UV

3.1. Honesty

Research staff are expected to be honest in their conduct of research and in their response to activities by other individuals and the institution itself. Honesty is required throughout the entire research process including the application for funding or the initial protocol design for gathering data, the analysis and interpretation of data and when the final results are published. Honesty is also essential in revision and assessment activities as well as in the use of resources for carrying out research.

Research staff must clearly, unequivocally and explicitly recognise both direct and indirect collaboration and contributions from colleagues.

Research staff must respect industrial or intellectual property rights. Plagiarism, self-plagiarism or manipulation of the results are all unacceptable.

Honesty entails that conflicts of interests will be avoided at all stages of research.

3.2. Responsibility

Research staff must guarantee that research is conducted in accordance with the principles of action stated in the UV Statutes, this Code, the ethical, legal and safety requirements outlined in current regulations, as well as the terms and conditions defined by financial entities and/or agreements between the Universitat and funding bodies.

In particular, research staff must ensure that:

- Research is carried out guaranteeing safety, dignity, well-being and the rights of all those engaged in the research process.
- Research is conducted following financially and environmentally sustainable criteria.
- Research is undertaken in accordance with the original budget, except in cases in which modifications have been agreed upon.

- Funding obtained for research is used exclusively for the purposes stated in the call or funding agreement, except in cases in which authorisation has been obtained for another use.
- Reports accurately reflect the work developed and are submitted within the designated time frame.
- Conditions are met regarding publication, authorship and intellectual property.
- Accounting is scrupulous.

3.3. Rigour and scientific integrity

Honesty brings, implicitly, rigour to research development. It represents the capacity of using information, regulations and procedures to accurately and efficiently achieve quality standards in accordance with the values and strategies established for the science and technology system. Researchers are expected to be aware of the best research practices and integrity regulations in their field of research and ensure the accuracy of research data and results.

Research staff must carry out a rigorous process for obtaining and interpreting data, including a detailed revision of the results obtained before publishing. If significant errors are detected after publication, they need to be rectified publicly as soon as possible.

3.4. Conflicts of Interest

Research staff must avoid conflicts of interest that might compromise the validity of research results. Effective, transparent management of real or potential conflicts of interest is a must.

In the event of a conflict of interest, it shall be made public, notifying the appropriate authority. The policies of the contracting entities, assessment bodies or publishers must be followed.

3.5 Respecting intellectual or industrial property

Respect for intellectual and industrial property is essential. Reference must always be made to authorship and consent must be requested when published results, methods or data are used. Plagiarism is unjustified. Credit or recognition must be provided in the list of authors, acknowledgements or bibliography.

Provided below are guidelines related to good practice in research that the Universitat de València expects from its research staff.

4. Research development

4.1. Research planning and monitoring

Before research commences, it must be formulated in a written protocol that includes information relevant to project development. For example, it might include the following sections: background, objectives, methodology and research team. Likewise, it should

contemplate a work plan with an estimated calendar for each stage of research, indicating human resources, assigned tasks and material resources that are planned to be used, including everything related to obtaining data, the plan for custody, conservation and dissemination.

All data, resulting materials and primary documentation obtained in the research project are the property of the Universitat de València. Registry, storage, and custody are the responsibility of the principal investigator. All procedures and methods should be adequately cited and documented in laboratory manuals to ensure the reproducibility of results and provide evidence that demonstrates reliability.

Ethical, legal and assessment aspects for risks related to research will be taken into account according to the type of research. The document must undergo prior assessment by the UV Ethics Committee and adjust to the UV privacy policy if research directly involves people, personal data is gathered or processed, materials of human origin or experimental animals are used, or there are biological risks for the staff or the environment.

If a research project involves collaboration with other researchers or entities, the terms and conditions of this joint collaboration must be signed in order to ensure proper management of intellectual and industrial property (knowledge prior to the collaboration and the results that might arise), and if applicable, aspects related to confidentiality, occupational safety and other relevant issues.

Monitoring must take place in order to check that the activities are adapted to planning, and if necessary, changes may be made throughout the development of research projects and protocols.

4.2. Management of research funding

Research staff shall agree to the proper ethical and efficient management of available research funds. The funds obtained must only be used for the research objective and comply with the regulations of the call or the agreement signed with the funding body.

Research staff shall agree to manage their research budget in accordance with the conditions stated in the call or signed agreement and the applicable regulations; justifications or requirements requested should be submitted following the designated time frame. Furthermore, the UV must be informed at specified times about all information relevant to the development and justification of research projects.

The principal investigator for the project is responsible for complying with the agreements made with the funding body as well as informing the research team so that these agreements may be entered into. Likewise, the principal investigator should attend to any eventuality that might arise in a technical or financial revision of the project/contract.

Throughout the project, monitoring will take place in order to verify that technical and scientific activities are being carried out adequately. If any modifications are to be made, the funding body will be notified.

4.3. Facilities and equipment

Any research requiring the use of external facilities and equipment, or any facility or equipment that is not exclusively for its own use will require prior approval from those responsible.

Research staff shall make proper, responsible use of research facilities and equipment. Under no circumstances may they be used for purposes unrelated to the research or UV objectives.

4.4. Safety, health and the environment

The Universitat ensures that facilities and equipment meet the criteria for a sustainable environment and it strives to guarantee the safety of the workers as well as the quality of the results obtained.

In order to carry out research activities, researchers must be aware of safety measures, occupational health and environmental protection.

Research groups must guarantee that their activities are carried out within the framework of the UV policies on prevention of occupational hazards and environmental protection. Toxic wastes and dangers of all kinds shall be properly handled in accordance with safety and protocol regulations set forth by the UV.

4.5. Good Practice in Gender

In the research and transfer, the measures provided by the UV regarding gender will be applied, including the adoption of positive action measures with the purpose of promoting equality between men and women.

5. Research groups

5.1. Leadership and organisation of research groups

Research groups must have at least one person in charge of the group that acts as an interlocutor with the UV and, if necessary, external entities.

Those in charge of research groups shall nurture a work environment in which members can train and develop their skills. This environment should foster the exchange of knowledge and the pursuit of common research objectives. Cooperation with other research groups should also be encouraged.

Research groups should provide an organisational structure so that each team member knows and assumes responsibilities within the group.

The principal investigator will be responsible for complying with research commitments and pass on the corresponding obligations to the group members; furthermore, the principal investigator will be responsible for the registration and custody of the data as well as the proper management, dissemination of this data and confidentiality where appropriate.

5.2. Competence and supervision of research trainees

All research staff are expected to have the competence needed to carry out assigned activities. Students and trainees shall be properly supervised to ensure both the acquisition of knowledge and the quality of results that are generated.

Without prejudice to applicable legislation for doctoral studies, all individuals joining the UV as research trainees must be assigned a supervisor, in accordance with regulations. The supervisor will be responsible for the training process, taking into account the time frame for meeting the objectives and will provide the best conditions possible for the future scientific projection of research trainees.

In addition, the supervisor shall provide information on UV regulations and the existing legal and safety regulations that affect research activity.

All research staff are entitled to information and efficient protection in matters of occupational health and safety.

6. Publication and communication of research results

Research planning must also prepare for the dissemination of results, with special attention paid to authorship, the order of this authorship and open dissemination, where appropriate, of the results.

6.1. Open publication

Following the principles and norms of Open Science, research results (publications and underlying data) must be published in an open, transparent, meticulous and accurate manner. This is to be done in the least amount of time possible unless matters of intellectual/industrial property justify delay.

The UV shall facilitate the deposit, and if applicable, the publication of all UV scientific production in its institutional repository (RODERIC), encouraging open access and visibility of its publications and researchers. In addition, it shall encourage access to data that is as open as possible, providing tools and infrastructures for the proper management and dissemination of research data, according to what is stipulated by funding agencies and bodies at the national and European level.

6.2 Signature and authorship of publications

In scientific publications, UV research staff must clearly state that they belong to the Universitat de València, indicating the correct affiliation “Universitat de València”. If researchers include their department or institute, the official name shall be used.

The authors shall follow a standardised manner to indicate their name. They should sign the same way and choose a consistent use of one or two surnames, without abbreviations. Accents

should be maintained. Likewise, the authors are required to include their ORCID researcher number.

Committees that have supervised and authorised research must be included explicitly in published papers. Subsidies and funding as well as other types of research support must be listed.

Legislation on intellectual and industrial property to determine the status of author or co-author requires the following:

- To have contributed in a substantial manner to the development of the project and creative process, that is, to have contributed to the idea and design of the project or to the analysis and interpretation of data.
- To have contributed to the preparation of notifications, reports or publications of results.
- To be able to present personal contributions in detail regarding the research project and discuss the main aspects.

Mere participation in obtaining resources and gathering data or samples does not necessarily justify the status of co-author. However, contributions from collaborators and third parties must be acknowledged, declared and duly cited, if applicable.

7. Knowledge transfer

7.1. Dissemination of research results

One of the functions of the Universitat is the transfer of research results to society and the socioeconomic environment. Research staff must ensure that research results are disseminated and, where appropriate, exploited in accordance with contract agreements or call regulations, ensuring that their research reaches citizens and the general public through open dissemination activities.

7.2 Protection and exploitation of research results

If the principal investigator considers that the research results may lead to inventions or applications that are potentially susceptible to protection because of commercial interests, the competent Vice Principle shall be notified. The Universitat must be provided with all information related to the framework that has generated the results and in particular any use of previous results; any commitment that may have been made with a third party in research development, including confidential information and the subsequent exploitation of results; individuals and/or entities that have intervened in the generation of this result; and all the regulatory context in which the funded research has been generated.

If the Universitat decides to go forward with protection and subsequent exploitation of the results, research staff will collaborate at all times with the competent bodies in the signing and

drafting of as many documents as necessary to ensure the proper protection and subsequent transfer of the results to the socioeconomic environment.

Research staff shall refrain from any use or dissemination of results that may be detrimental to previously adopted agreements.

All authors or inventors of the research are entitled to participate in the possible benefits derived from the exploitation of the research, in accordance with current regulations on the protection of UV research results.

8. Irregular conduct and conflict resolution

The following are considered to be academic negligence or misconduct related to research activity:

- Fabrication or falsification of research data or results
- Plagiarism, non-citing or misappropriation of ideas, work or data from other individuals
- Non-disclosure of the existence of conflicts or in cases in which they may be reasonably perceived

9. Reference documents

- Recommendations of the Spanish Bioethics Committee in relation to the drive and implementation of good scientific practice in Spain
- Code of Good Practice in Research (Autonomous University of Barcelona)
- Code of Good Practice (Carlos III University of Madrid)
- Code of Good Practice (Open University of Catalonia)
- Oxford University Academic Integrity in Research: Code of Practice and Procedure
- National Declaration of Scientific Integrity (CRUE)
- Universitat de València Statutes
- Guidance on Gender Equality in Horizon 2020
- Law 14/2011 on Science, Technology and Innovation
- The European Code of Conduct for Research Integrity