



**GREEK REPUBLIC
UNIVERSITY OF THESSALY
SCHOOL OF AGRICULTURAL SCIENCES
DEPARTMENT OF ANIMAL SCIENCE**

POSTGRADUATE STUDIES PROGRAMME

"MSc in Dairy Cattle Management"

REGULATION ON RESEARCH ETHICS

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Article 1. Purpose

The present document defines the conduct of research work within the framework of the MSc in accordance with the Code of Ethics and Conduct (CEC) applied by the University of Thessaly (UTH). The responsible body for the observance and application of the CEC is the Research Ethics and Conduct Committee (RECC) according to Article 2 of the CEC accessible as follows. Both the CEC and the operation of the RECC were approved by the Senate of the Faculty of Science in accordance with its decision No. 10920/20/GP of 11 Jun 2020. The relevant texts are available on the website of the RECC of UTH (<https://ehde.uth.gr>). The CEC was forged on the basis of the principles of a series of regulatory texts, some of which are mentioned below.

1. The Oviedo Convention on Human Rights and Biomedicine (Law 2619/1998)
2. The Directive (EU) 2016/680 of the European Parliament and of the Council («Directive LED»)
3. The Data Protection General Regulation (“DPGR”)
4. The European Union Regulation 2016/679 EU on personal data protection
5. The Law on personal data protection (Law 4624/2019)
6. The Declaration of Helsinki
7. The Constitution of Greece, article 9A
8. The Code of Medical Ethics (3418/2005)
9. The Universal Declaration on Bioethics and Human Rights by UNESCO
10. UNESCO Declaration on the Human Genome
11. European General Rules and Codes of Conduct, (DG for Research and Innovation, Guidance note – Research on refugees, asylum seekers and migrants, H2020 Programme, Guidance. V6.1, 04.02.2019)
12. The P.D. 56/30-04-2013 which adapts Greek legislation to Directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 (L 276/33/20.10.2010) "on the protection of animals used for scientific purposes".
13. The provisions of Law 4521/2018, art. 23, paragraph 2a, on animal protection.
14. The UN Convention on Biodiversity (Convention of Rio de Janeiro)

15. The accompanying Cartagena Protocol on Biosafety, as incorporated into Greek legislation by Law 2204/1994
16. The provisions of the Community Directive 2001/18, as incorporated into Greek legislation by M.D. 38639/2017.
17. The provisions of the Community Directive 1998/81, on the restricted use of genetically modified micro-organisms, as incorporated into Greek legislation by means of M. D. ΗΠ/11648/1943/2002.
18. The provisions on special licensing by EEAE for the use, handling and removal, movement of radioactive substances (Law 1733/1987, 2480/1997, Law 854/1971, Decree 22/1997).
19. The legislation on the infringement of cultural heritage (Law 3028/2002).

Article 2. Field of Application

This Code derives from CEC and applies to all funded or not funded research activities of the MSc conducted within or outside the premises of the University of Thessaly (UTH), under the responsibility of its scientific staff. (Code of Conduct, Article 1).

Article 3. The value of research activity in the context of the MSc, guarantees of its observance and actions for the dissemination of research

The value of the research activity in the institutional context (and thus within the activities of the MSc) is described in detail in Article 4 and corresponding paragraphs of the CEC and is summarised in the following. Research carried out within the framework of the MSc aims to promote scientific knowledge which, through its exploitation, contributes to the well-being of society as a whole. For the Institution and, by extension, for the academic unit (Department of Animal Production Science - LCA) and the MSc, scientific research is both a social good and a fundamental right of the person carrying it out. As a social good, it promotes human knowledge and innovation and thus contributes to improving the quality of individual and collective life. This dimension is inextricably linked to the researchers' freedom, without which it cannot be carried out. Research activity is an integral element of the freedom of the researcher and is reflected institutionally by its protection as an individual right (Greek Constitution, UNESCO Declarations). These two dimensions of the value of research are

inextricably and organically linked. Researchers enjoy the constitutionally guaranteed academic freedom within the framework of the UTH. The freedom of research is guaranteed by the public character and institutional autonomy of the institution, which guarantee its independence from political and economic dependencies.

The control of morality and ethics by the research community itself is a guarantee of the independence of research in the context of self-regulatory processes. The UTH, through its competent bodies, guarantees the independence of researchers (Article 5 of the CEC). It is responsible for the transparency of its financial resources, in particular of the conditions for accepting private funding.

The MSc, within the CEC framework (Article 5) and the Internal Regulations of the MSc, ensures the dissemination of the knowledge produced (the writings of postgraduate theses - MSc theses - are published in the institutional repository of the University <http://ir.lib.uth.gr/handle/11615/1> according to article 4 par. 2, while scholarships are provided for the dissemination of results by postgraduate students - P.S. - according to Article 6, paragraph 3 of the MSc's Internal Regulations), in the context of its research activities, to the international scientific community and the wider public and in a responsible manner, which contributes to the social use of science and, through this, to social progress and improvement of the quality of human life.

Article 4. Basic Principles of Research Ethics and Conduct

The basic principles of Research Ethics and Conduct recorded in Article 6 of the CEC and related to the conduct of research within the MSc (and related institutions through the MSc) and research conducted within the MSc (including the laboratories and institutions involved outside the UTH) are the following (points 4. 1.x), while special reference is made to principles of bioethical research on human subjects (Article 7 of the CEC based on social research but with extensions to biological research , points 4.2.x):

4.1.1 Researchers responsibility. Research must be conducted with integrity, commitment to scientific truth, respect for human dignity, personal autonomy, the biological and intellectual persons integrity, intellectual property and personal data, and care for life, nature and the environment. UTH researchers accept that scientific responsibility and social responsibility apply equally to humans and animals.

4.1.2 Scientific integrity. Scientific integrity is the refusal to violate scientific values for financial gain or public recognition. Integrity is defined in terms of specific epistemological and methodological obligations, which vary according to the scientific disciplines.

4.1.3 Reliability. All scientific research must be carried out in a way that guarantees its reliability, which is reflected in its design, methodology, analysis and use of resources and the communication of its results, thus ensuring its quality.

4.1.4 Impartiality/Honesty. All members of the MSc research community are committed to the principle of fair treatment of all persons with whom they collaborate, as well as adherence to the principles of fairness, meritocracy and impartiality. They shall refrain from any activities or actions that might constitute, or suggest, favouritism or bias or negative bias towards persons involved. The development, conduct, monitoring, reporting and provision of information about an investigation shall be conducted in a transparent, fair, complete and impartial manner.

4.1.5 Equal treatment. All members of the MSc research community enjoy the right to equal treatment, but are also obliged to respect the corresponding right of other researchers and their collaborators, without any form of direct or indirect discrimination based on racial, ethnic and cultural characteristics, language, gender and sexual orientation, religious, political and philosophical beliefs, privacy, health and physical fitness, as well as the economic and/or social status of individuals.

4.1.6 Personal rights and respect. In the course of any research activity, all members involved must behave with due respect for the rights and freedoms of persons with whom they cooperate, rejecting any form of deception, coercion, or harassment. The conduct of researchers shall be guided by respect for the biological and spiritual integrity of human beings, and concern for nature and the environment. In addition, all research activities shall be carried out with due respect for the intellectual property rights of the members of the Institution and its collaborators at international and national level.

4.1.7 Accountability and Transparency. Each researcher, or the team he/she is part of, has an obligation to allow access to the full results of a specific research project. The methodology of the research must be or become apparent. The protocols of the research, in the knowledge areas where they exist, should be followed in any appropriate and demonstrable way so that the results of the research are verifiable. Commitments to accountability and transparency

apply to research from conception to publication, management and organization, training, supervision and mentoring, as well as its wider impact.

4.1.8 Respect for Intellectual Property. Plagiarism, the appropriation of foreign achievements as well as the falsification of results are inadmissible and are subject to sanctions within the framework of the Rules of the CEC and the provisions on the protection of rights (Article 16 of the CEC and Article 5, paragraph 7 of these Rules).

4.1.9 Those conducting research on human subjects must be aware of the ethical principles and specific ethical rules governing their subject. In particular, any research involving human subjects must be conducted in accordance with the fundamental principles of bioethics, namely:

- the autonomy of persons,
- of utility,
- non-harm and
- fairness.

4.1.10 Respect for human dignity and the related principle of the primary importance ("intrinsic value") of human beings constitute the core of bioethical principles, which are reflected in international conventions and declarations (Oviedo Convention, UNESCO Universal Declaration on Bioethics and Human Rights, UNESCO Declaration on the Human Genome) as well as in the Constitution and legislation of Greece.

4.1.11 The interests and welfare of the individuals involved in research always take precedence over the interests of science and society alone. In the event of a conflict, priority must always be given to the individual.

4.1.12 Social research in particular has a key objective to contribute to the development of knowledge and the advancement of social sciences to improve the lives of people and society as a whole. The specificity and importance of research on human beings require the development of certain specific normative guidelines.

Article 5. Application of Ethics and Conduct in Human Research

5.1 Dignity of human. Researchers when conducting their research must show due respect to the decency, personal autonomy and individual rights of third parties involved in the research activity (Article 8, CEC). They are required to avoid any discrimination against individuals on the basis of ethnicity, race, national origin, language, gender, religion, private life, physical ability, socioeconomic status, or any other factor not related to scientific ability and integrity.

5.2 Obligation to inform parties involved in the investigation and to obtain consent. Researchers of UTH must inform in a concise but comprehensible and as complete manner as possible, honestly and adequately, the persons who are to take part in their research, about the objectives of the latter and in accordance with the details of Article 9 of the CEC. There is also an obligation to inform persons who, while not participating in the investigation, are directly affected by the conduct of the investigation. No research on human subjects may be carried out without prior consent (paraphrased from Article 10, paragraph 1, of the CEC) after the person involved has been thoroughly informed of the purpose, scope and potential risks, in accordance with Article 9 of the CEC.

The consent of persons who are to participate in the research must be given in writing or by any clear affirmative action which constitutes a free, specific, explicit and informed indication of the subject's agreement to the processing of his or her data, for example by a written statement, including by electronic means or by recording (a detailed description is provided in Article 10, paragraph 1 of the CEC).

Those who are legally incapable of legal capacity and minors may participate in an investigation only if it is carried out in their interest, with the written consent of their legal representatives, based on the Oviedo Convention and the applicable legislation on the protection of personal data, with regard to their own opinion and the free withdrawal of consent at any time (Article 10, paragraph 2 of the CEC). Research on minors must be specifically justified and only if its results cannot be produced in any other way or with the participation of other groups (Article 11 of the CEC). In these cases, special care is required by the researchers of UTH to protect the rights of children, minors and vulnerable groups when it is deemed necessary to involve them in research projects (details on methodological guidelines are provided Article 11 of the CEC).

5.3 Specific justification and protection rules for research involving sensitive social groups. Any research conducted through the MSc is subject to the obligation to provide specific justification for the choice to involve in it persons vulnerable to coercion (Article 12 of the CEC). In certain environments and situations, there are circumstances which, by their very

nature, may have a decisive influence on a person's will and thus limit his or her freedom and self-determination, such as detention in penal institutions, hospitalization in psychiatric institutions or even in intensive care and emergency units, living in nursing homes or in shelters for refugees and migrants, in conditions of domestic, social or political violence, in emergency situations due to natural or other disasters, etc. In such cases, researchers have increased responsibilities and must document in a justified and thorough manner that they are ensuring that the conditions are met so that research participants are not reduced to mere 'instruments' for experimentation and research. For research on refugee populations, the principles contained in the European General Rules and Codes of Conduct must be respected (DG for Research and Innovation, Guidance note - Research on refugees, asylum seekers and migrants, H2020 Programme, Guidance. V6.1, 04.02.2019). In potential research on prisoners, researchers must comply with the specific provisions applicable to them (Penal Code, special Codes of Ethics in Criminology or Criminal Investigation). Under no circumstances shall experiments be permitted which may cause risks to their physical and mental health, or reduce their moral standing or offend their human dignity.

5.4 Respect for diversity. In all research, MSc researchers must respect cultural and individual differences in roles and positions (including those based on age, gender, race, minority, ethnicity, religion, sexual preference), disability, language and socio-economic level) and to ensure the necessary theoretical, methodological and research conditions for the emergence of the genuine discourse and perspective of the research participants (paraphrase of Article 13 of CEC). They shall not take advantage of persons with whom they have a consultancy or similar relationship that by its very nature creates a relationship of inequality (e.g. patients, clients, etc.) and shall avoid in any way causing harm or exposing research participants to danger. Researchers shall create, maintain, distribute, store, preserve and dispose of records and data related to their research in accordance with applicable law and this Code of Ethics and Conduct.

5.5 Personal data protection. The research organizations within the framework of the MSc (in the context of Article 14 of the Code of Conduct) are committed to protecting the privacy of the persons participating in the research, as well as to protecting them during the electronic or any other type of processing of their personal data. Researchers carrying out the processing should process personal data solely in accordance with the purposes of processing and by the means of processing specified by the Data Controller. Researchers carrying out the processing should process personal data only for the processing purposes and by the means of processing specified by the Data Controller. The UTH, as the responsible for the data processing

organization and the researchers carrying out the processing undertake to implement the necessary technical and organizational measures to comply with the principle of data minimization, to ensure an appropriate level of protection and security during processing, to protect data against destruction, loss, alteration, unauthorized access, disclosure or transmission by any means. Appropriate measures may include the use of pseudonyms, codes or other methods that completely exclude the identification of the subjects involved. If, exceptionally, the possibility of identification is necessary to be retained for the purposes of the specific processing, it should be specifically justified and appropriate safeguards should be provided for. Researchers must strictly comply, before, during and after the research, with the principles of the collected and processed personal data, as well as the existing legislation on their protection. Each research is conducted in accordance with the principles and rules of the General Data Protection Regulation (GDPR) and the existing Greek legislation.

In the case of a research carried out within the framework of the MSc, if there is a request by the Scientific Supervisor for the personal data transfer to a country outside the European Union, this request must be accompanied by the corresponding documentation, i.e. formal certificate, indicating firstly the number of the contract with the data recipient in the third country and secondly that from the contract, emerges the compliance with the guarantees for the personal data protection provided by the EU Regulation. If no such contract exists, the Scientific Supervisor must state the reason for this and must provide for specific written consent of the subjects participating in the research for their transfer data, provided that the consent form explicitly states that EU data protection guarantees do not apply in the third country (which must be named).

Those researchers involved in the MSc who process personal data of subjects participating in research, and who are not bound by legal confidentiality or are not in a dependent relationship with the UTH, i.e. those who are not officers or employees of the Institution or not connected to it for the purpose of carrying out the specific research with an employment relationship (not a project or the provision of independent services, etc.), conclude an additional Terms and Conditions Agreement with the UTH for the processing of personal data. All persons participating in a research have the right to have their data erased or deleted (see Article 14, paragraph 5 of the CEC for details).

The processing of special categories' personal data will be subject to all the strict provisions applicable to them under the legislation in force. (Article 14, paragraph 6) of the CEC). For all personal data protection issues, researchers must comply with the instructions of the UTH's

Data Protection Officer (DPO), having the obligation, if they do otherwise, to justify their decision in writing and to assume civil and criminal liability for any adverse or detrimental effects resulting from it (Article 14, paragraph 7 of the CEC). In any case, researchers are obliged to follow the applicable provisions on personal data in accordance with the provisions in force in Greece and Regulation 2016/679/EU of the European Union.

5.6 Compliance with safety rules. Researchers at the UTH must apply all the safety rules recognized in the relevant scientific field (Article 15 of the CEC). IM researchers conducting research projects must provide full and honest information to the participants and take all necessary and enforceable scientific measures to protect the participants' and employees' health. Also, the concept of safety includes data security. All secure systems must embody the basic principles of confidentiality, integrity and availability (Article 15 of the CEC).

5.6. Respect for intellectual property. When conducting their research activity, the researchers of the UTH must take into account and in no way infringe the intellectual property rights of third parties (intellectual property is protected by the relevant European/national legal frameworks and Article 16 of the CEC for research carried out within the framework of the MSc).

Any person who obtains, formally or informally, knowledge of the progress or the product of the research before the completion and publication of its results is required to observe complete confidentiality and to refrain from any action to exploit this knowledge for his or her own benefit. Researchers acquire intellectual property rights in the subject matter of the research they carry out and in the products thereof, according to the degree of their contribution to them, the contract under which they acted, their relationship with the UTH and, in any case, the relevant provisions of the legislation in force. Intellectual property includes the right to exploit the research work (property right) and the right to protect the personal connection to it (moral right).

Article 6. Application of Ethics and Conduct in the Animal Research

Experiments carried out in research involving animals fall into two broad categories: those that benefit humans, and those that benefit animals. The first category includes research with the main objectives of studying, preventing and treating diseases, testing drugs, producing

diagnostic products, promoting human health, gaining knowledge of the mechanisms of the human body (basic research), etc. The second category includes experiments aimed at improving the lives of the animals themselves. According to animal welfare principles, research should be guided by the ethical treatment of animals, including the selection of the appropriate animal species for experimental purposes. Knowledge of animals' morphological and physiological characteristics and of their "zootechnical" requirements is a prerequisite for their proper use for experimental purposes. So housing, feeding and care must be commensurate with the animals' needs and requirements. The use of animals for experimental purposes is governed by the basic principle of the '3 Rs' (Replacement, Reduction, Refinement). According to the Replacement principle, research on animals is only justified when no other alternative methods are available, and no attempt should be made to replace animals with other lower organisms that have less developed nervous systems and experience less pain, such as plants, micro-organisms and metazoa. When animals cannot be replaced, care should be taken to reduce their number (Reduction). The design of the experiment should be such as to give reliable results using the smallest possible number of animals. Refinement of the methods requires the minimization of pain and suffering to the animals. Research on animals is governed by the rules described in P.D. 56/30-04-2013 which adapts Greek legislation to Directive 2010/63/EU of the European Parliament and of the Council of 22nd September 2010 (L 276/33/20.10.2010) "on the protection of animals used for scientific purposes" - as well as the provisions of Law 4521/2018, Art. 23, paragraph 2a).

Article 7. Application of Ethics and Conduct in Research on the Natural, Human Settlements and Cultural Environment

All research on the environment must be carried out with care for its protection and in accordance with good practices for the management of biological resources based on the principle of sustainability. Access to biological resources should be carried out in accordance with national legislation and international treaties and after obtaining any necessary permits from the competent bodies. Research that may affect biological diversity must be carried out in accordance with the UN Convention on Biological Diversity (Rio de Janeiro Convention) and

the accompanying Cartagena Protocol on Biosafety, as incorporated into Greek legislation by Law 2204/1994.

Research on genetically modified organisms and microorganisms must be carried out in accordance with the provisions of the Community Directive 2001/18, as incorporated into Greek legislation by Ministerial Decree 38639/2017 and those of the Community Directive 1998/81, on the restricted use of genetically modified microorganisms, as incorporated into Greek legislation by Decree 38639/2017. HP/11648/1943/2002. For the use, handling and removal, movement of radioactive substances, a special authorization of EEAE is required, in accordance with the provisions in force (Law 1733/1987, 2480/1997, Law 854/1971, PD 22/1997). In case of use of ionizing or non-ionizing radiation, special protection measures for both researchers and the general population must be taken in accordance with the legislation. No research shall justify damage to the environment in violation of the laws established for its protection and for the management of waste. No research shall justify an infringement of cultural heritage in violation of the legislation (Law 3028/2002). When carrying out technical works in the context of an investigation, the rules of ethics of the Professional Code of Greek Engineers, issued on the basis of Articles 24 and 26 of the Presidential Decree of 27-11/14-12-1926 'On the codification of the provisions of the Technical Chamber', must be observed.

Article 8. Relationships among the Research Team members

Researchers have an obligation of mutual respect and the right to equal treatment (Article 17 of the CEC). Younger researchers are entitled to respect for their personalities and a fair assessment of their abilities. They have a corresponding obligation to respect and recognize the experience of their seniors. The individual contribution of each researcher to collective research efforts should be recognized. It is the researcher's right for his/her contribution to be reflected accurately, either in scientific publications or in any public presentation of the research project. The responsibility for this rests with all members of the scientific team and in particular with the project leaders.

Article 9. Scientific officers' and associates' Obligations

9.1. Obligations of the Scientific Officers. The Scientific Officers of the research must , when conducting the research (Article 19 of the CEC):

1. comply with the provisions of the applicable legislation, fundamental ethical principles, the rules of professional conduct and this Code, and
2. monitor the compliance of their collaborators with the aforementioned rules during the conduct of the research, as defined in the previous Article.

Collaborative researchers should not appropriate research findings for their own individual promotion, or present research findings as their own work. In collaborative research, the team leader should ensure that basic ethical principles and standards of conduct are observed by all team members.

Respect and recognition of each researcher's individual contribution and respect for the principle of transparency and mutual information are all research participants' obligations. Honesty in publishing and reporting scientific findings, integrity in keeping promises and commitments, confidentiality with regard to data disclosed during face-to-face meetings or during the examination of proposals submitted for funding or work submitted for publication, social responsibility, protection of volunteers and respect for their privacy, particularly when dealing with vulnerable groups, are basic principles of good research practice and must be respected by all researchers. Any outsourcing of part of the research or research support work to third parties is under the responsibility and supervision of the person in charge of the research project. In the case of more than one supervisor, all of them shall be equally responsible for compliance with the obligations herein. Infringement of the provisions of this Article and of Article 19 of the IRC by the persons responsible for the research project may be grounds for the termination of the research project in question. The interruption is decided by the Senate of the University of Thessaly, after recommendation by the Research and Management Committee of the Research and Management Committee of the Hellenic Research Centre of the University of Thessaly and the relevant Research Ethics Committee, which is issued after a written and signed complaint. Before any recommendation is made by the NEC, both the complainant and the investigator(s) are invited to appear before it to develop their views on the complaint orally or in writing.

9.2 Partners obligations. According to Article 18 of the CEC, research partners must: according to Article 18 of the ERA, research collaborators must: (a) carry out their research activity with

the primary aim of advancing scientific knowledge and benefiting society as a whole, and (b) comply with the provisions of the legislation relating to research subjects, ethical principles, the rules of good practice in research, and the conduct rules of their profession and the CEC. When conducting research, partners enjoy freedom of expression and opinion. At the same time, they must respect the guidelines imposed by the researcher for organizing and guiding the research activity. Any violation of the provisions of the Code of Ethics and Conduct and this Code by research collaborators or their failure to comply with the instructions of the research supervisor regarding the violation of ethical principles and standards of conduct, may result in their replacement.

Article 10. Promotion of the Research that takes place within the framework of the MSc.

Signs, announcements and general means of promotion of the programmes related to the research carried out within the framework of the MSc are designed and used in a way that serves to inform the scientific community or the general public, and not to promote research in an unfair manner (Article 20 of the Code of Ethics and Conduct and this Article). The reporting of the contribution of the PIs and the financial resources of the MSc to scientific publications/ papers and conference presentations must be complete and clear in order to clearly document the research output within the MSc.