

A Policy for Research Ethics

This policy is to be followed by all members of the staff and student body at Harper Adams University when engaging in research. The Research Office will make staff and Postgraduate Research students aware of these guidelines. Undergraduate and Taught Postgraduate students will be made aware of them by their dissertation tutor in advance of any research being undertaken.

These guidelines will also be available on the L: drive and the Research Office Portal site.

All final year Investigational Project, masters and postgraduate research students are expected to submit a Research Ethics application through the online Research Ethics portal prior to starting any research. They must provide evidence to their supervisor (to the Research Office if postgraduate research students) that their Research Ethics application has been approved before they begin any research work.

1. Aim and Objectives

Aim

To establish and promote good ethical practice in the conduct of academic research.

Objectives

- To encourage researchers to adhere to best practice relating to the ethical development, implementation and dissemination of research.
- To protect the integrity and reputation of Harper Adams University.
- To protect the rights of participants.
- To protect the rights of fellow researchers.
- To promote sustainable agriculture, enhance biodiversity and optimise energy use in an environment of finite natural resources.

2. Rigour, respect and responsibility: a universal ethical code for scientists

This is a public statement of the values and responsibilities of scientists, defined by the Department for Business, Energy, and Industrial Strategy as including anyone whose work uses scientific methods, including social, natural, medical and veterinary sciences, engineering and mathematics. It aims to foster ethical research, to encourage active reflection among scientists on the wider implications and impacts of their work, and to support constructive communication between scientists and the public on complex and challenging issues.

The University community is encouraged to adopt and promote this code. It captures a small number of broad principles that are shared across all disciplines.

2.1 Rigour, honesty and integrity

- Act with skill and care in all scientific work. Maintain up to date skills and assist their development in others.
- Take steps to prevent corrupt practices and professional misconduct. Declare conflicts of interest.
- Be alert to the ways in which research derives from and affects the work of other people, and respect the rights and reputation of others.

2.2 Respect for life, the law and the public good

- Ensure that your work is lawful and justified.
- Minimise and justify any adverse effect your work may have on people, animals and the natural environment.

2.3 Responsible communication: listening and informing

- Seek to discuss the issues that science raises for society. Listen to the aspirations and concerns of others.
- Do not knowingly mislead, or allow others to be misled, about scientific matters. Present and review scientific evidence, theory or interpretation honestly and accurately.

(Taken from the BEIS Universal ethical code for scientists, September 2007; <https://www.gov.uk/government/publications/universal-ethical-code-for-scientists>)

All staff and students are encouraged to reflect on and debate how this code may relate to their own work. For example, acting with rigour, honesty and integrity may include: not committing plagiarism or condoning acts of plagiarism by others; ensuring that work is peer reviewed before it is disseminated; reviewing the work of others fairly; ensuring that primary data that may be needed to allow others to audit, repeat, or build on work are securely stored. Similarly, in communicating responsibly, scientists need to make clear the assumption, qualifications or caveats underpinning their arguments.

2.4 Research Integrity

Harper Adams University is internationally recognised for the quality of its research, as evidenced by the Research Excellence Framework 2014 (<https://www.harper-adams.ac.uk/news/202438/international-quality-rating-for-harper-adams-university-research>). In order to maintain and uphold the high standards of our research, we continue to undertake initiatives to ensure that integrity, ethics and excellence are at the core of our research activities and fully embedded in our research culture.

The University follows both the Universities' UK Concordat to Support Research Integrity (<https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/research-concordat.aspx>) and the UK Research Integrity Office (UKRIO) Code of Practice for Research (<http://ukrio.org/publications/code-of-practice-for-research/>) that was written on behalf of the University sector and provides a basis for the conduct of all research in academia.

For information on research integrity please contact the Research Coordinator.

In the event of concern around any of the research taking place at Harper Adams please contact the Deputy Vice-Chancellor, and refer to our whistleblowing procedure available from <https://www.harper-adams.ac.uk/research/>.

2.5 Social Science Research

Any staff or student carrying out social science research is required to abide by the Market Research Society (MRS) Code of Conduct. The comprehensive MRS Code covers research from the inception to design and from execution to use. It is relevant for market, social and opinion research. The Code covers legal requirements and how these apply to research.

The Code, drawn up by researchers for researchers, helps to protect providers, buyers and respondents. It safeguards standards, promotes confidence and champions professionalism. It can be accessed at:

https://www.mrs.org.uk/standards/code_of_conduct.

2.6 Joint Code of Practice for Research

Harper Adams also follows the government led Joint Code of Practice for Research. This code lays out a framework for the proper conduct of research using 'best scientific practice' from the start of all research projects. Many funders are signatories to this Code, and expect grant holders

to be committed to the principles within this code. Signatories include BBSRC, NERC, Defra, FERA, FSA, APHA, Forestry Commission, Natural England, and the Veterinary Medicines Directorate. The Joint Code of Practice can be accessed at <https://bbsrc.ukri.org/about/policies-standards/joint-code-of-practice-for-research>.

Where research is to be conducted outside the UK, the researcher must establish whether local ethical review is required by the host country, and if not, how the principles of the Research Ethics Policy can be followed in developing and undertaking the research. The ethical standards that the University expects for UK research apply equally to work undertaken outside the UK.

3. Specific Guidelines for Research Ethics

3.1 Respect for the Person

- a. Respect must be shown for those participating in the research process whether actively or passively. Participants include (i) subjects of observation, inquiry, test or experiment; (ii) collaborators; (iii) those assisting with the research process; (iv) those with responsibility over the space in which the research is conducted or over the participants of the research and (v) those who form part of the immediate context in which the research is being undertaken.
- b. The University commitment to Equal Opportunities must be reflected in a non-discriminatory approach to participants in the research process. Respect for the person does not depend on gender, age, race, religion, sexuality or any other distinguishing feature.
- c. Researchers must seriously and comprehensively consider the question of informed consent in the research process. The working principle should be that participants in research should give their informed consent to the research process.
- d. Particular concern and consideration must be taken with the issue of informed consent where the research involves minors. Researchers should consider, with appropriate consultation, to what extent children are able to give their consent in the particular circumstances of the research.
- e. Consent should be obtained from the institution (company/organisation) where the research is to be conducted. As a general principle, the more wide-ranging the research, the higher level of consent required.
- f. The seeking of consent must be genuine. Prospective participants must have the opportunity to decide not to participate, without suffering any consequences for so doing.
- g. Consent must be informed. Researchers have a responsibility to seriously and comprehensively consider the question of informing participants in the research of the content of that research. In particular, participants should be informed of any negative effects which the research may have on them (for example, emotionally, professionally, in terms of stress).
- h. There may be occasions when the researcher considers that the full disclosure of the content and likely impact of the research process will negatively affect the integrity of the research process and its results. Due consideration must nonetheless be given to the impact of this lack of full disclosure on participants in the research process and the priority should lie with the well-being of participants.
- i. Participants must have the right to withdraw their consent any at any point within the research process.

- j. Respect for participants includes respect for privacy. Results should normally be reported in such a way that the identity of individuals cannot be determined. Particular concern must be taken where the data collected might be construed to be of a personal nature. If such data is to be collected, this should be communicated to the participant concerned before the research commences.
- k. Researchers should be clear about the type of data to be collected and the method of collection, and this must be a key consideration when obtaining informed consent. This is particularly the case when the method of data collection involves covert observation of human interaction. The researcher should take care to ensure that participants are as far as possible aware of the period during which their actions or words contribute towards the research findings. Particular care should be taken over the use of data obtained from what might normally be construed as private conversations or actions.
- l. Respect for participants includes respect for the working conditions and roles of contract staff. These should be clear and fair.
- m. Researchers must be aware of any potential conflicts of interest in their work arising from their position within the research context. In particular, researchers in a position of authority arising from or separate from the research process should be aware of placing other participants in a situation where they feel obliged to participate in the research or to produce particular results.

3.2 Respect for the Integrity of Knowledge

- a. Researchers must not falsify or distort research findings, nor plagiarise the work of others. Particular care should be taken to ensure full and appropriate citation of the work of others.
- b. Researchers must be aware of undertaking research in an area where they may be perceived to have a conflict of interest, for example in the form of a commercial or professional benefit accruing from particular results.
- c. Researchers should show a sympathetic awareness of the research community within which they are working. Where criticism of the results or methods of others is deemed necessary, this should normally be constructive and carefully considered.
- d. Due credit should be given to the contribution made by all of the researchers involved in a project. Authorship should be credited to those who have had a substantive input into the research output in question, with the appropriate relative weighting being accorded to authors (for example, in terms of the order of authorship) irrespective of professional position or seniority.
- e. Researchers should be careful not to engage in research which they know to be beyond their competence. They should have the ability to use the appropriate methodological tools required for the research in question. Considerations of competence need particularly full assessment when entering into contracts with external funding bodies.

3.3 Respect for Animals

For research undertaken under the Animals (Scientific Procedures) Act 1986, Harper Adams University Board of Governors has established a Body of the Board of Governors known as the Animal Welfare and Ethical Review Body (AWERB). Full details of AWERB can be found in Appendix 1.

All other research using animals is covered by the general policy for research ethics.

3.4 Respect for the Environment

- a. Researchers should identify and follow established codes of best environmental practice.
- b. Wherever possible and practicable, researchers should minimise the use and waste of energy, reducing emissions and recycling materials.
- c. The protection, restoration and enhancement of biodiversity in all terrestrial and marine habitats should be encouraged by reducing pollution.
- d. Researchers need to protect and conserve natural resources for future generations in a sustainable fashion.
- e. Researchers have a duty to raise the environmental awareness of others, by training and education, especially in relation to the environmental impact of their own research.
- f. Where appropriate, researchers should develop, with their supervisory team, a set of environmental standards that can be regularly monitored and reviewed in relation to their research.
- g. Researchers have a duty to communicate the environmental consequences of their practices and findings to a wider public audience, in an open and transparent fashion.

4 **Principles of Good Research Practice**

(Adapted from BBSRC Statement on Safeguarding Good Scientific Practice, 2016)

4.1 Professional Standards

a. Honesty

At the heart of all research endeavour, regardless of discipline or institution, is the need for researchers to be honest in respect of their own actions in research and in their responses to the actions of other researchers. This applies to the whole range of research work, including experimental design, generating and analysing data, publishing results, and acknowledging the direct and indirect contributions of colleagues, collaborators and others. All individuals must refrain from plagiarism, piracy, or the fabrication of results.

b. Openness

While recognising the need for researchers to protect their own research interests in the process of planning their research and obtaining the results, Harper Adams encourages its researchers to be as open as possible in discussing their work with other researchers and the public. Once results have been published, where appropriate the University expects researchers to make available relevant data and materials to others, on request.

4.2 Guidance from professional bodies

Where available, Harper Adams expects researchers to observe the standards of research practice set out in guidelines published by research societies and other relevant professional bodies.

4.3 Leadership and co-operation in research groups

The culture and tone of procedures within any organisation must be set by individuals in authority. With research, it is the responsibility of the Deputy Vice Chancellor, the Research

Coordinator, senior colleagues, and each Head of Department to ensure that a climate is created which allows research to be conducted in accordance with good research practice. These individuals should create a research environment of mutual co-operation, in which all members of a research team are encouraged to develop their skills and in which the open exchange of research ideas is fostered. They must also ensure that appropriate direction of research and supervision of researchers and research students are provided, and that staff under their direction are aware of relevant legislation and published guidance.

4.4 Ethical Practice

- a. Throughout the lifecycle of their scientific investigations, researchers should work to ensure that ethical issues relating to the research project are identified and managed. Ethical issues should be interpreted broadly and may encompass areas where regulation and approval processes exist as well as areas where they do not.
- b. Researchers should also consider any risks that their research will generate outcomes that could be misused for harmful purposes. Where such risks exist, researchers should seek advice and take active steps to minimise them. The BBSRC and other funders have a joint policy statement on managing the risks of research misuse, and Harper Adams researchers should take the time to review this (<https://bbsrc.ukri.org/about/policies-standards/risks-of-research-misuse-policy/>)

4.5 A critical approach to research results

Researchers should always be prepared to question the outcome of their research. While acknowledging the pressures of time and resources under which researchers often have to work, Harper Adams expects research results to be checked for accuracy and consistency by the individual researcher responsible for the results and by the principal investigator where applicable before being made public. Individual researchers and relevant research team members must be able to explain and justify how the results were reached.

4.6 Documenting results and storing primary data

Throughout their work, Harper Adams requires researchers to keep clear and accurate records of the research procedures followed and of the results obtained, including interim results. This is necessary, not only as a means of demonstrating proper research practice, but also in case questions are subsequently asked about either the conduct of the research or the results obtained. For similar reasons, data generated in the course of research must be kept securely in paper or electronic form, as appropriate. Harper Adams expects data to be securely held for a period that complies with the requirements and best practice of the funding body, research council or legislative requirement as appropriate.

4.7 Publishing results

It is a condition of Harper Adams support for research that the results are published in an appropriate form. Papers published in refereed journals are strongly encouraged. This has long been widely accepted as the best system for research results to be reviewed through the refereeing process and made available to the research community for verification or replication. The issue of authorship is important in the context of good scientific practice and Harper Adams expects it to be taken seriously. Harper Adams expects anyone listed as an author on a paper to accept personal responsibility for ensuring that they are familiar with the contents of the paper, and that they can identify their contributions to it. The practice of honorary authorship is unacceptable. Harper Adams expects suitable acknowledgement of financial support in all publications. A number of funders require open access to research outputs. Harper Adams aims for all research papers to be available for reading and downloading in an electronic format. All published research outputs must be logged with the Harper Adams Repository Manager for

uploading to the open access database of Harper Adams' research publications.

4.8 Acknowledging the role of collaborations and other participants

In all respects of research, the contributions of formal collaborators and all others who directly assist or indirectly support the research must be properly acknowledged. This applies to any circumstances in which statements about the research are made, including provision of information about the nature and process of the research, and in publishing the outcome. Failure to acknowledge the contributions of others is regarded as unprofessional conduct. Similarly, collaborators and other contributors carry their share of the responsibility for the research and its outcome.

4.9 The needs of new Researchers

Researchers who are new to the scientific community may face particular difficulties. Responsibility for ensuring that students and other new researchers understand good research practice lies with all members of the community, but particularly with senior researchers. Harper Adams has in place systems, which allow students, and new researchers to adopt best practice as quickly as possible, for example, formal training or mentoring schemes. More information on these systems can be obtained from the Research Coordinator or the Deputy Vice Chancellor. For research students, Directors of Study should oversee any research student training and development.

5. **Legal and data protection requirements**

Researchers must comply with legal requirements. In particular, they must ensure compliance with Data Protection Law. This consists of all EU Data Protection Directives, including GDPR, and all UK legislation (including the Data Protection Act 1998).

It remains the responsibility of the researcher to ensure that arrangements are in place to maintain the integrity and security of research data. If further guidance is required regarding the security of data then the matter may be referred to the Research Ethics Committee.

Secondary use of datasets must be given careful consideration by the researcher and the Research Ethics Committee, especially where reliance is being placed on a presumed consent by subjects to the use of their information, or where there is a potential risk of disclosure of sensitive information. Researchers who collect primary data that are to be archived and may be used by others for secondary analysis should be mindful that the consent obtained from the persons providing such data and the safeguards applied to protect their identity should be sufficient for that secondary purpose.

Further advice and guidance is available from the Data Protection/Freedom of Information Officer (cmunro@harper-adams.ac.uk or hrendall@harper-adams.ac.uk).

Appendix 1

Harper Adams University Board of Governors has established a Body of the Board of Governors known as the Animal Welfare and Ethical Review Body. The Body and its Chairman shall be appointed by the Board of Governors. The holder of the University's Home Office Certificate will be the Chairman of the Body. The other members will be:

Deputy Vice-Chancellor

At least 2 Project Licence Holders

At least 1 Personal Licence Holder

Named Information Officer

Named Animal Care and Welfare Officer

Named Training and Competency Officer

Named Veterinary Surgeon

At least 2 Members not involved in animal work, at least one of whom shall be a lay member appointed by the Board of Governors

1. Body Authority

1.1 The Body is authorised by the Board of Governors to ensure that:

- a. all animal use under the Animal (Scientific Procedures) Act 1986 is carefully considered and justified;
- b. proper account is taken in accordance with the ASPA Schedule 3 part 2 para 6 (3) of all aspects of welfare, or animals in relation to their acquisition, accommodation, care and use;
- c. application of the 3 "R"s and ensure that all persons involved in licenced work are kept informed of relevant technical and scientific developments;
- d. consider reports to ensure that the Body can be confident that the University is meeting all of its obligations as specified in ASPA Guidance section 10;
- e. ensure that a 'culture of care' is created by ensuring that all staff associated with animal work are appropriately trained and are competent to undertake their role;
- f. it considers and approves all project licences prior to submission to the Home Office and obtain reports from recipients of project licences during and at the end of the project which includes the information on use of animals, results achieved, any resulting published work and any unforeseen ethical issues raised by the project.

2. Chair's Action

In cases of urgency the Chairman will be empowered to act on behalf of the Body and to report his actions to the next meeting of the Body.

3. Duties

3.1 The duties of the Animal Welfare and Ethical Review Body shall be:

- a. To examine applications for new project licences and amendments to existing licences, with reference to the likely costs to the animals, the expected benefits of the work and the balance between these considerations. The Body will have the right to approve an application for submission to the Home Office, to reject an application or to request amendment to an application;
- b. To ensure that applicants for project and personal licences have fully considered

opportunities to minimise the use of animals through replacement, reduction or refinement of experimental procedures. The Body will have the right to request amendment to an application or reject an application in instances where evidence is not available that such full consideration has been made;

- c. To review current projects and consider the outcome of completed projects in the context of the aims of replacement, reduction and refinement;
- d. To ensure the adequacy of animal care and animal accommodation in relation to each licensed procedure and to advise on re-homing;
- e. To ensure that all staff involved in animal work are appropriately trained and are competent in the care and management of animals;
- f. To ensure that staff working with animals are aware of the availability of information relating to alternatives to the use of animals;
- g. To promote awareness of the responsible use of animals within the University.

4. Animal Welfare and Ethical Review Body - Ethical Review Process

The Animal (Scientific Procedures) Act 1986 regulates 'any experimental or other scientific procedure applied to a protected animal which may have the effect of causing that animal pain, suffering, distress or lasting harm'. The Secretary of State requires that an ethical review process be maintained in each establishment designated under section 6 or 7 of the Act. Every establishment is required to explain to and test with the Animals (Scientific Procedures) Inspectorate a viable ethical review process. The satisfactory performance of this requirement is a standard condition for the continued operation of the Home Office licence.

5. Aims

5.1 The aims of the ethical review process are to:

- a. provide independent ethical advice to the Certificate Holder, particularly with respect to project licence applications and standards of animal care and welfare;
- b. provide support to named people (under the Act) and advice to licensees with regard to animal welfare and ethical issues arising from their work;
- c. promote the use of ethical analysis to increase awareness of animal welfare issues and develop initiatives leading to the widest possible application of the principles of reduction, refinement and replacement (the 3Rs).

This policy will be reviewed tri-annually.

v2.3 December 2018