Code of Research Practice and Research Ethics

Version – v1 –February 2025

Procedure Author – Vice-Chair Academic Integrity and Ethics Committee

Procedure Owner – Pro-Vice-Chancellor (Research and Innovation)

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Changes and Reason for Changes – New Code

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Introduction by University Integrity and Ethics Committee

The University Code of research practice establishes our approach to ensuring we conduct research to the highest levels of ethics and integrity amongst staff and students. It ensures that what we do is underpinned by global and future-focused principles of fairness and opportunity. We have responsibilities as a university to maintain the highest ethical standards in research and scholarship. We have adopted the guidelines developed by UKRIO, as these represent best practice in the sector.

The purpose of this code of practice is to present the ethical framework and procedures for the conduct of all academic activity related to research and to identify ethical considerations that must be addressed through the formal approval process. This Code of Practice sits alongside the University Regulatory Framework, our policy statements and related procedures.

As a university it is our responsibility to maintain an environment that develops good practice in research and scholarship. In doing so we are required to ensure that every member of staff is aware of the policies and processes relating to ethical approval. Researchers and scholars have freedom in their academic choices, and so every member of staff has a personal responsibility to understand and maintain the highest standards of rigour and integrity, and to comply with ethical, legal and professional frameworks.

We will regularly review the Code and welcome feedback from Researchers on the current edition by email to integrity@uws.ac.uk.

For the purposes of this Code, "**research**" refers to the definition used by the 2021 Research Excellence Framework (REF 2019/01 Guidance on Submissions, January 2019, revised October 2020, Annex C):

"…a process of investigation leading to new insights, effectively shared.

It includes work of direct relevance to the needs of commerce, industry, culture, society, and to the public and voluntary sectors; scholarship; the invention and generation of ideas, images, performances, artefacts including design, where these lead to new or substantially improved insights; and the use of existing knowledge in experimental development to produce new or substantially improved materials, devices, products and processes, including design and construction. It excludes routine testing and routine analysis of materials, components, and processes such as for the maintenance of national standards, as distinct from the development of new analytical techniques. It also excludes the development of teaching materials that do not embody original research.*

It includes research that is published, disseminated, or made publicly available in the form of assessable research outputs, and confidential reports…

**Scholarship for the REF is defined as the creation, development and maintenance of the intellectual infrastructure of subjects and disciplines, in forms such as dictionaries, scholarly editions, catalogues and contributions to major research databases."*

REF 2019/01 Guidance on Submissions (Annex C, 1-3)

Similarly, for the purposes of this Code,

- "**Researchers**" refers to any person who conducts or supports research *in any discipline*, including but not limited to:
  - academic research staff;
  - an independent contractor or consultant;
  - a research student;
  - a postgraduate or undergraduate student conducting research
  - a research assistant;
  - a visiting or emeritus member of staff;
  - a member of staff on a joint clinical or honorary contract;
  - a technician; or
  - a member of professional services staff;

Section 1: Commitments

Researchers must adhere to the commitments set out within *The Concordat to Support Research Integrity* (see Box 1).

The University and its Researchers must consider the Commitments when implementing and complying with the core **Standards** described in Section 3 and the **Recommended Checklist for Researchers** in Section 2.

Box 1: **Summary of the Concordat's Five Commitments (2019 Edition)**

1. Maintaining the highest standards: We are committed to upholding the highest standards of rigour and integrity in all aspects of research.
2. Ethical, legal, GDPR and other frameworks: We are committed to ensuring that research is conducted according to appropriate ethical, legal and professional frameworks, obligations and standards.
3. Research culture: We are committed to supporting a research environment that is underpinned by a culture of integrity and based on good governance, best practice and support for the development of Researchers.
4. Dealing with research misconduct: We are committed to using transparent, timely, robust and fair processes to deal with allegations of research misconduct when they arise.
5. Strengthening research integrity: We are committed to working together to strengthen the integrity of research and to reviewing progress regularly and openly.

Section 2: Recommended Checklist for Researchers

The Checklist highlights the key points of good practice for a research project from start to finish and is applicable to all disciplines. Researchers must read the guidance in Section 3 before completing this checklist. A standalone version and an accessible version of this checklist are available from the UKRIO website.

Part I – Before conducting your research, and bearing in mind that, subject to legal and ethical requirements, roles and contributions may change during the research:

<table>
<tr><td>1</td><td>☐</td><td>Does your proposed research address pertinent question(s) and is it designed either to add to existing knowledge about the subject in question or to develop methods for research into it? – inclusive of:
repeatability;
reproducibility;
replicability;
trustworthiness;
credibility;
authenticity; and
meta-research</td></tr>
<tr><td>2</td><td>☐</td><td>Is your research design and methodology appropriate for your research question(s)?</td></tr>
<tr><td>3</td><td>☐</td><td>Will you have access to all the necessary skills, training and resources to do your research?</td></tr>
<tr><td>4</td><td>☐</td><td>Have you done a risk assessment and due diligence to check for and mitigate: potential risks to your organisation; the environment; the research; or the health, safety and well-being of Researchers and research participants and potential risks to research and innovation?

Activities that involve potentially vulnerable participants or highly sensitive topics are more likely to be of higher risk and applicants must satisfactorily demonstrate to the School Ethics Committees that these are mitigated. All research and scholars should apply the following risk framework.

<table>
<tr><th>Class</th><th>Risk Characteristics</th><th>Risk Response</th><th>Notes</th></tr>
<tr><td>1</td><td>Project exhibits none of the characteristics that indicate the need for independent ethical scrutiny</td><td>Documented and registered self-assessment, reviewed and approved by lead supervisor/supervisor</td><td>Typically suitable for any researcher including an undergraduate or postgraduate student on a taught programme</td></tr>
<tr><td>2</td><td>Exhibits one or more characteristics indicating a need for</td><td>Assessment/approval by the relevant School</td><td>Typically suitable for any researcher</td></tr>
</table>
</td></tr>
</table>

	independent ethical scrutiny but none of the risk factors indicating potentially higher risk	Academic Integrity & Ethics Committee	including an undergraduate or postgraduate student on a taught programme
3a	Exhibits one or more factors considered to be indictors of higher risk. Demonstrates that the risk factors have been adequately addressed through the use of standard protocols and established methodologies for potentially higher risk situations.	Assessment/approval by the relevant School Academic Integrity & Ethics Committee	Not typically suitable for an undergraduate or postgraduate student on a taught programme. May typically be suitable for a postgraduate student on a research programme or staff member, subject to mitigation.
3b	Exhibits one or more factors considered to be indicators of higher risk. Proposed risk mitigation and/or research methodology involves novel approaches, heightened residual risk etc.	Assessment by the relevant School Academic Integrity and ethics Committee prior to final decision	Not typically suitable for an undergraduate or postgraduate student on a taught programme. May typically be suitable for a postgraduate student on a research programme or staff member, subject to suitable mitigation.

Research involving the following groups/situations are likely to be considered “higher risk”. It is particularly important in these circumstances to be “risk aware” and to reflect on potential vulnerabilities and demonstrate approaches to minimising their impact.

1. Potentially vulnerable participants are those who may not be in a position to give competent or unfettered informed consent. Examples include:
    - Children under 16
    - Adults with learning disabilities

		. Adults with severe or terminal illness . Adults with mental illness . Adults in care homes . Those with a dependent relationship with the investigator e.g. students, relatives and friends . Those who may have perceived and/or real benefit from participation to which they otherwise would not have access 2. Potentially highly sensitive topics. Examples include: . "race" or ethnicity . spiritual beliefs . sexuality . abuse and personal violence . criminal activities 3. Where there is a significant element of deception 4. Procedures, treatments, therapeutic techniques, psychosocial or other interventions. Examples include: . collection of body tissues or fluids e.g. venepuncture . administration of any substance or agent . counselling sessions 5. Where there is significant risk to the researcher 6. Where there are Trusted Researcher and/or export controls considerations
5	☐	Will your research comply with Trusted Research guidelines to protect yourself and the research from potential exploitation, misuse, and theft?
6	☐	Have you signed all contracts (including collaboration agreements if relevant) before commencing the research and will your research comply with contractual and financial guidelines relating to the project?
7	☐	Have you agreed the intellectual property?
8	☐	Has your research had any necessary ethics review, *especially* if it involves: • human participants; • human material; • personal data; • animals (inclusive of non-ASPA, i.e., animals that do not fall under the Animal Scientific Procedures Act 1986); • animal materials; • microbiomes; • environmentally hazardous agents; or • dual use research of concern (DURC)?
9	☐	Will your research comply with all legal (including health and safety), GDPR and ethical requirements and other applicable guidelines, including those from other organisations and/or countries.
10	☐	Will your research comply with good practice requirements and where relevant, follow open research practices?

11	☐	Have you agreed how you will disseminate outputs (inclusive of journal articles, conferences, book chapters, pre-prints, registered reports, abstracts, etc.), authorship and contributorship?
12	☐	Have you considered how your research will comply with any monitoring, audit and data management requirements?
13	☐	Have you agreed on the roles of all the Researchers and responsibilities for management and supervision?
14	☐	Have all competing interests relating to your research been identified, declared, and addressed?
15	☐	Where applicable (e.g., clinical trials or systematic reviews), has your research been registered with the appropriate body?
16	☐	Are you aware of the research misconduct policies of all relevant organisations and know which procedure to investigate research misconduct will take precedence?

Part II – When conducting your research:

1	☐	Are you following the agreed design and methods for the project?
2	☐	Have any changes to the agreed design, methods, and hypotheses been reviewed and approved, if applicable?
3	☐	Are you following best practices to collect, create, produce, compile, store, and manage your research outputs?
4	☐	Are agreed roles and responsibilities for management and supervision being fulfilled?
5	☐	Is your research complying with any monitoring, audit and appropriate data storage requirements?
6	☐	Have you reviewed authorship and contributorship agreements at this stage of the project?

Part III – When finishing your research:

1	☐	Does your research comply with all legal, ethical, data protection (including GDPR) and contractual requirements?
2	☐	Are agreements relating to intellectual property, publication, authorship, contributorship, international collaboration, and innovation being complied with?
3	☐	Will all contributions to the research be acknowledged?
4	☐	Will your research and all its findings (inclusive of null results) be reported accurately, honestly, completely, and within a reasonable time frame?

5	☐	Will the research outputs be retained in a secure and accessible form and for the required duration?
6	☐	Will research outputs be made open, accessible, and of high quality?

Section 3: Standards for Organisations and Researchers

Researchers must comply with the following core Standards, which should be interpreted considering the **Commitments** in Section 2.

Each Standard adopts the order:

- the University and its Researchers;
- the University; and
- Researchers.

3 General Guidance on Good Practice in Research

3.1.1 The University and its Researchers must comply with all legal and ethical requirements and other guidelines that apply to their research, such as The Concordat to Support Research Integrity and materials from regulators, learned societies, research funders, publishers and others. This includes submitting research proposals for **ethics review** where appropriate and abiding by the outcome of that review. They must also ensure that research projects are approved by all applicable bodies, ethical, regulatory, or otherwise

3.1.2 When conducting or collaborating in research in other countries, the University and its Researchers based in the UK should comply with the legal and ethical requirements existing in the UK and in the countries where the research is conducted. See the *Cape Town Statement* for guidance on fostering fairness, equity and diversity to achieve research integrity goals. The University may need to comply with the legal requirements of a third country even if there is no involvement of that country in a specific research project so as not to hinder other research projects that may involve the third country.

3.1.3 The University and its Researchers based abroad who participate in UK-hosted research projects should comply with the legal and ethical requirements existing in the UK as well as those of their own country.

3.1.4 The University and its Researchers must ensure that all research projects have sufficient arrangements for insurance and indemnity **before the research begins**.

3.1.5 The University will:

a. ensure that good practice in research forms an integral part of their research strategy or policy;

b. establish clear policies and procedures that cover the Commitments of good practice in research (see Box 1) and offer detailed guidance on the Standards set out in this Code;

c. ensure that these policies and procedures complement and are in accordance with existing organisational policies, such as those for health and safety, reporting channels for raising concerns at work, management of finances or of intellectual property, wellbeing and welfare, and equality, equity, diversity, and inclusivity;

d. make sure that our Researchers are aware of these policies and procedures and that all research carried out under their auspices complies with them;

e. provide training, resources, and support to our Researchers to ensure that they are aware of these policies and procedures and are able to comply;

f. promote a positive research culture, and remain cognisant of the impact of the environment and incentives on this;

g. establish clear policies and procedures on Trusted Research that encompass *National Protective Security Authority (NPSA)* guidelines while maintaining **open research**, where applicable;

h. encourage our Researchers to consider good practice in research as a routine part of their work; and

i. have a systematic process of regularly reviewing organisation-specific risk assessment to monitor these measures for suitability, effectiveness and continuous improvement.

3.1.6 Researchers will:

a. recognise their responsibility to conduct research of high ethical standards;

b. be aware of the University's policies and procedures on good practice in research;

c. make sure that their research complies with these policies and procedures, and seek guidance from their organisation when necessary;

d. work with the University to ensure that they have the necessary training, resources, and support to carry out their research;

e. suggest to the University how guidance on good practice in research might be developed or revised; and

f. comply with open research practices and the *Hong Kong Principles* to ensure trustworthy research and minimise risks by adhering to *Trusted Research* guidelines. This includes informal discussion in public spaces, conferences, and collaborations.

3.2 Leadership, Supervision, Training and Development

3.2.1 The University and its Researchers will promote and maintain an environment which fosters and supports research of high ethical standards, mutual co-operation, professionalism, and the open and honest exchange of ideas. Both will foster a culture where good practice in research is promoted while inappropriate conduct is identified and addressed. The University will review and reflect on their research environment using UKRIO's Self-Assessment Tool.

3.2.2 The university will provide direction and supervision of research and researchers, setting out clear lines of accountability for the university and management of research. the university must support supervisors and researchers in meeting the legal and ethical requirements of conducting research. the university must offer and encourage training and support in management and leadership to those responsible for the supervision and development of other researchers.

3.2.3 The University will provide training for all Researchers to enable them to carry out their duties and develop their knowledge and skills throughout their career by:

3.2.4 identifying unmet needs for training and development;

3.2.5 providing periodic refresher courses or retraining;

3.2.6 providing qualified mentors for early-career Researchers;

3.2.7 providing educational opportunities for more-established Researchers;

3.2.8 providing ongoing training in responsible research design, conduct, and dissemination; and

3.2.9 where relevant, this training should include open research practices, peer review, research ethics, data and image integrity, and transparency of programming codes and scripts.

3.2.10 The University supports the principles of The Concordat to Support the Career Development of Researchers.

3.2.11 The University will provide support for student Researchers. The University will make sure that student Researchers understand which standards and organisational policies and procedures they are expected to comply with and the sources of help and support available to them.

3.2.12 Researchers involved in the supervision and development of other Researchers must be aware of their responsibilities and ensure that they have the necessary training, time, and resources to carry out that role, and request support if required.

3.2.13 Researchers must undergo available training to carry out their duties and to develop their knowledge and skills throughout their career, repeating training where necessary to ensure that skills are kept up to date. They should identify needs for training when they arise and report them to their manager or other appropriate person as identified by the University.

3.3 Research Design

3.3.1 When designing research projects, the University and its Researchers must ensure that:

a. the proposed research addresses pertinent question(s) relevant to the community or beneficiaries and is designed either to add to existing knowledge about the subject in question or to develop methods for research into it; context dependent concepts like repeatability, reproducibility, replicability, reliability, trustworthiness, credibility, authenticity and meta-research are of equal importance to establish quality;

b. the design is justified and appropriate for the question(s) being asked, and addresses the most important potential sources of bias and criticism;

c. the design and conduct of the study, including how the research outputs will be made, gathered, analysed, stored, and managed, are set out in detail in a prespecified research plan or where possible a protocol submitted to a registry. Open research practices are encouraged – see the *UK Reproducibility Network (UKRN)* resources on practicing open research in different disciplines;

d. all necessary skills and experience will be available, in the proposed research team or through collaboration with specialists in relevant fields;

e. sufficient resources will be available and that these resources meet all relevant standards;

f. agreements are in place to give appropriate acknowledgement for the intellectual and/or technical contributions to the research output; and

g. any of the above issues are resolved as far as possible before the start of the research.

3.3.2 The University (where required) and Researchers must conduct a risk assessment of the planned study to determine:

a. whether there are any ethical issues and whether ethics review is required;

b. the potential for risks to The University, the research, or the health, safety, wellbeing and mental health of Researchers and research participants, the public, the environment, national security; and

c. what legal requirements govern the research.

Risk assessments should be a continuous process throughout the lifecycle of the research project to mitigate risks and communicating them to appropriate staff in the organisation.

3.3.3 Where the design of a study has been approved by a **research ethics committee** (**REC**), either internal or external, or by regulatory or peer review, The University and its Researchers must ensure that any later design changes are appropriately reviewed by the relevant REC to ensure that they will not compromise the integrity or ethics of the research, or any terms of consent previously given. Information on The University, NHS and non-NHS RECs are provided here:

- The University's School Academic Integrity and Ethics Committees
- NHS Research Ethics Committees
- Non-NHS Research Ethics Committees

3.3.4 Where appropriate, a study should be registered with an appropriate body to align with transparency and openness of the research. For example, a Researcher could use pre-registered reports so that the background, study design, methods, and analysis plan are peer reviewed before research begins (if appropriate for their research discipline).

3.3.5 Researchers must aim to identify risks that the proposed research might produce results that could be misused for purposes that are illegal or harmful (including DURC). Researchers must comply with Trusted Research guidelines, report any risks to, and seek guidance from, the appropriate person(s) in their organisation and take action to minimise those risks.

3.3.6 Researchers should be prepared to make the original research designs (also known as study protocols) available to peer reviewers and journal editors when submitting research reports for publication.

3.4 Collaborative Working

3.4.1 The University and its Researchers should follow the *Framework to Enhance Research Integrity in Research Collaborations*, paying particular attention to projects that include participants from different countries or where work will be carried out in another country, due to the additional legal and ethical requirements and other guidelines that may apply. Refer to *the Cape Town Statement on how to foster equitable research partnerships.* See also sections 3.1.2, 3.1.3, 3.6.2 and 3.7.2.

3.4.2 When conducting or collaborating in research in other countries, The University and its Researchers based in the UK must comply with the legal and ethical requirements both in the UK and in the countries where the research is conducted. They must have clarity over who has competency in overseeing research outside the UK as UK RECs are advised to avoid reviewing research projects which already have ethical approval from a REC

in another country whose review processes are similar to the standards expected in the UK.

3.4.3 Similarly, Researchers based in other countries who participate in The University-hosted research projects should comply with the legal and ethical requirements in the UK as well as those of their own country.

3.4.4 The University must work with partner organisations to ensure they agree and comply with common standards and procedures for the conduct of collaborative research, including the resolution of any issues or problems and the investigation of any allegations of misconduct in research.

3.4.5 Researchers involved in collaborations must be aware of the standards and procedures for research followed by any collaborating organisations. They must also be aware of any contractual requirements involving partner organisations, seeking guidance and help where necessary and reporting any concerns or irregularities to the appropriate person(s) as soon as they become aware of them.

3.4.6 Researchers should try to anticipate any issues or barriers that might arise because of working collaboratively and agree jointly in advance how they might be addressed, communicating any decisions to all members of the research team. Agreement must be sought on the specific roles of the Researchers involved in the project and on issues relating to intellectual property, Trusted Research, open access, publication, and the attribution of authorship and contributorship, recognising that, subject to legal and ethical requirements, roles and contributions may change during the research.

3.5 Competing Interests

3.5.1 The University and its Researchers must recognise that competing interests (i.e., personal or organisational considerations, including but not limited to rivalry and financial matters) can inappropriately affect research. Competing interests, also known as conflicts of interest (COIs) must be identified, declared, and addressed to avoid poor practice in research or potential misconduct.

3.5.2 When addressing a competing interest, The University must decide whether it is of a type and severity that risks fatally compromising the validity or integrity of the research, in which case Researchers should not proceed with the research, or whether it can be adequately addressed through

declarations and/or safeguards relating to the conduct and reporting of the research.

3.5.3 The University has a conflict of interest procedure addressing competing interests, including guidance on how to identify, declare, and address competing interests, and will disseminate and explain the policy to Researchers.

3.5.4 Senior staff should be aware of potential or actual competing interests at the organisational level and disclose them when they arise so that they can be addressed. Senior staff must recuse from committees, investigations, and other duties when there are potential COIs or lack of impartiality.

3.5.5 Researchers must comply with any external requirements relating to competing interests, such as those of funding bodies. This will include declaring any potential or actual competing interests relating to their research to their manager or other appropriate person as identified by their organisation, any ethics committee which reviews their research, and when reporting their findings at meetings or in publications. Competing interests must be disclosed as soon as Researchers become aware of them.

3.5.6 Researchers must abide by any direction given by the University or any relevant ethics committee in relation to a competing interest.

3.6 Research involving Human Participants, Human Material, or Personal Data

3.6.1 The University and its Researchers must make sure that research involving human participants, human material, or personal data complies with all legal and ethical requirements and other applicable guidelines. Please refer to the University safeguarding guidelines here.

- The *UK General Data Protection Regulations (UK GDPR)* as part of the Information Commissioner's Office's (ICO's) *Guide to Data Protection*;
- The *National Health Service (NHS) Health Research Authority's (HRA's)* operational guidance on the implementation of GDPR for health and social care research;
- The *Declaration of Helsinki* specifying the ethical principles of involving human participation;
- The *Human Tissue Authority (HTA)* guidance on the use of different types of human material;
- The *Human Fertilisation & Embryology Authority (HFEA)* guidance on the use of embryos and gametes;

- The *Administration of Radioactive Substances Advisory Committee (ARSAC)* on the use of radioactive substances on human participants;
- The *Medicines and Healthcare products Regulatory Agency (MHRA)* for the use of medical devices and clinical trials;
- The *UK Policy Framework for Health and Social Care Research*; and

Appropriate care must be taken when research projects involve vulnerable groups and protected populations, such as older participants, children or those with mental illness, and covert studies or other forms of research which do not involve full disclosure to participants. The dignity, rights, safety, and wellbeing of participants must be the primary consideration in any research study. Research should be begun and continued only if the anticipated benefits justify the risks involved.

3.6.2 The University and its Researchers will set up systems to ensure the confidentiality and security of personal data relating to human participants and human material involved in research.

3.6.3 The University and its Researchers working with, for, or under the auspices of, any of the UK Departments of Health and/or the NHS must adhere to all relevant guidelines, such as the Health Research Authority (HTA) guidance:

- *UK Policy Framework for Health and Social Care Research*; and
- *Use of human tissue in research*.

The University and its Researchers involved in clinical trials on medicinal products for human use must comply with the principles of *Good Clinical Practice (GCP)* and the *International Conference on Harmonisation guidelines for Good Clinical Practice (ICH GCP)*.

3.6.4 The University and its Researchers must consider the challenges when working with participants, communities and stakeholders and ensure systems are in place for effective communication, monitoring of compliance with all legal and ethical frameworks throughout the research process, including adherence to *Trusted Research* guidelines.

3.6.5 The University, through ethical review has systems to ensure appropriate ethical, regulatory, and peer review of research projects involving human participants, human material, or personal data before, during, and at the end of the study. Researchers must ensure that research projects have been approved by all applicable bodies, ethical, regulatory, or otherwise.

3.6.6 Researchers must also ensure that appropriate procedures for obtaining informed consent are established and observed in projects involving human participants, having regard to the needs and capacity of the participants.

3.6.7 Researchers must ensure that they are aware of and understand all the University guidelines for ethical practice.

3.6.8 Researchers must submit research projects involving human participants, human material, or personal data for review to the relevant ethics committee(s) and abide by the outcome of those reviews. They must also ensure that such research projects have been approved by all applicable bodies, ethical, regulatory, or otherwise.

3.6.9 Researchers on projects involving human participants must satisfy themselves that participants are enabled, by the provision of adequate accurate information in an appropriate form through suitable procedures, to give **informed consent**, having regard to the needs and capacities of vulnerable groups, such as older participants, children, those with mental illness or those in prison all of whom may require gatekeeper permissions. If a participant or gatekeeper cannot give informed consent, the participant must not be involved in the research. See the following for guidance:

- UKRIO – *Gatekeeper permission*;
- Economic and Social Research Council (ESRC) – *Research with children and young people*;
- ESRC – *Research with potentially vulnerable people*.
- ESRC – *Internet mediated research*;
- UKRIO – *Good practice in research: Internet-mediated research* and additional resources on UKRIO's website here.

3.6.10 Researchers must ensure that co-production, collaboration or participant and stakeholder involvement in research meets and adheres to appropriate methodology and ethical frameworks, with considerations for responsibility, accountability, transparency, respect, expectations, management and sharing or use of the research. See the following for guidance:

- The *ESRC Framework on Research Ethics*;
- N8 Research Partnership and ESRC report – *Knowledge that matters: Realising the Potential of Co-Production*;
- The National Institute for Health and Care Research (NIHR) Guidance on co-producing a research project.
- *Participatory Research Methods – Choice Points in the Research Process*.

3.6.11 Researchers must inform research participants that data gathered during research may be disseminated not only in a report but also in different forms for academic or other subsequent publications and meetings, albeit not in an

identifiable form, unless previously agreed to, and subject to limitations imposed by legislation or any applicable bodies, ethical, regulatory, or otherwise.

3.6.12 Researchers who are members of a regulated profession must ensure that research involving human participants, human material, or personal data complies with any standards set by the body regulating their profession.

3.6.13 All health and social care research should be registered in a publicly accessible database so that trusted information about the studies is available for the benefit of all. For clinical trials, it is a *condition of a favourable ethics opinion*. Registering trials reduces research waste, prevents duplication and allows more participants to engage with the research.

3.6.14 Researchers should publish the findings of all clinical research involving human participants in a timely manner upon completion. They need to be mindful of any restrictions on the reporting period, for example, sponsors of *Clinical Trials of Investigational Medicinal Products (CTIMPs)* are currently expected to publish a research summary of their findings within **12 months** of the study's completion. Forthcoming updates to the *UK Clinical Trials Regulations* will further strengthen current transparency expectations by introducing new legal requirements for those conducting CTIMPs to register a trial prior to its start, to publish summary of results within 12 months of the end of the trial, and to share trial findings with participants in a suitable format. It is important that research participants are thanked and informed about how their contribution helped in a way that is meaningful to them.

- See the changes detailed in the *Government response to consultation on legislative proposals for clinical trials*

3.6.15 If Researchers consider that human participants in research are subject to unreasonable risk or harm, they must suspend the activity that is deemed harmful and then report their concerns to their manager, or other appropriate person(s) and, where required, to the appropriate regulatory authority. Similarly, concerns relating to the improper and/or unlicensed use or storage of human material, or the improper use or storage of personal data, should be reported.

3.7 Research involving Animals and Animal Materials

3.7.1 University and its researchers must make sure that research involving animals adheres to all legal and ethical requirements and other applicable guidelines. While research involving protected animals (captive or temporarily captive living vertebrates or cephalopods) is governed by the Animals Scientific Procedures Act (ASPA)(1986), Researchers must apply

the same ethical standards to all work involving living animals. They should also ensure responsible use of animal-derived materials (where possible).

3.7.2 They are to meet the legal requirements of the **3Rs** for reduction, replacement, and refinement of research involving animals and must refer to the relevant guidance from:

- *Home Office*;
- *Animals in Science Committee (ASC)*;
- *Laboratory Animal Science Association (LASA)*; and
- *UKRIO and others.*

3.7.3 The University and its Researchers must ensure that they continue to address the 3Rs with help from the *National Centre for the Replacement, Refinement & Reduction of Animals in Research (NC3Rs)*.

3.7.4 The University has systems to ensure the ethical, regulatory, and peer review of research projects involving animals. These include mechanisms to make sure that such research projects have been approved by all applicable bodies, ethical, regulatory, or otherwise.

3.7.5 Researchers must ensure that they are trained in all procedures necessary to conduct the research.

3.7.6 For research projects involving protected animals, regulated under ASPA, Researchers must submit a draft project licence application for review by The University AWERB and amend their application in accordance with the recommendations of that review. They must have the necessary procedure training and maintain accurate record keeping. They must also ensure that such research projects have been approved by all applicable bodies, ethical, regulatory, or otherwise before starting the research. Research projects involving protected animals not regulated under ASPA must be submitted to the relevant school academic integrity and ethics committee for review prior to the commencement of the work.

3.7.7 If Researchers consider that animals involved in research are subject to unreasonable risk, harm or licence infringement (either or both project and personal Home Office animal licences), they must suspend the activity that is deemed harmful and then report their concerns to their manager or other appropriate person(s) as identified by their organisation, and, where required, to the appropriate regulatory authority (e.g., Home Office).

3.7.8 Researchers should comply with appropriate standards by following the *PREPARE* checklist when planning animal research, in conjunction with the

ARRIVE guidelines for transparent reporting and dissemination of outputs from research involving animals and/or animal material.

3.8 Health, Safety and Environmental Protection

3.8.1 University and its Researchers must ensure that all research carried out under their auspices, or for which they are responsible, fulfils all requirements of health and safety legislation and good practice. Certain types of research, for example social research in a conflict zone, can present issues of health and safety. They must ensure that all research which involves potentially hazardous or harmful material, or which might cause harm to the environment, complies with all legal requirements and other applicable guidelines for acquisition, use, storage, and disposal.

3.8.2 Researchers must ensure that research is reviewed in accordance with the University's policy on health and safety.

3.8.3 Researchers must submit such research for all forms of appropriate review and abide by the outcome of that review.

3.9 Copyright and Intellectual Property

3.9.1 The University and is Researchers must ensure that any contracts or agreements relating to research include provision for ownership and use of intellectual property. Intellectual property includes but is not limited to research data and other findings of research, ideas, information, designs, patents, trademarks, processes, software, hardware, apparatus and equipment, substances and materials, and artistic and literary works, including academic and scientific publications.

3.9.2 The University and its Researchers should not give prior disclosure of research or the findings of research when this might invalidate any commercial property rights that could result. The University and its Researchers should recognise, however, that the presumption should be that any intellectual property discovered or developed using public or charitable funds should be disseminated to have a beneficial effect on society at large. That presumption may be overridden where there is an express restriction placed on any such dissemination. Any delay in publication and dissemination pending protection of intellectual property should be reasonable and kept to a minimum.

3.9.3 The University and its Researchers must comply with any additional conditions relating to intellectual property required by funding bodies.

3.9.4 Any exceptions should be clearly stated when standard guidance might not apply; for example, waiving copyright of research theses, dissertations, and articles prepared for publication in journals or books.

3.9.5 Researchers should try to anticipate any issues relating to intellectual property at the **project planning stage** or at the earliest opportunity before dissemination and agree jointly in advance how they might be addressed, communicating any decisions to all members of the research team.

3.9.6 Researchers intending to copyright research material or output must comply with relevant legislation and guidelines (see government guidelines on copyright), and ensure that these do not conflict with open access terms or other conditions of funding agreements.

3.10 Finance

3.10.1 The University and its Researchers must ensure that the terms and conditions of any grant or contract related to the research are adhered to.

3.10.2 The University has guidelines regarding the legal and ethical purchasing or procurement of materials, equipment, or other resources for research and the hiring of staff for research projects.

3.10.3 Researchers must comply with the University guidelines regarding the use and management of finances relating to research projects. They should cooperate with any monitoring and audit of finances relating to research projects and report any concerns or irregularities to the appropriate person(s) as soon as they become aware of them.

3.11 Generation, Collection and Retention of Data, Information or Material

3.11.1 The University and its Researchers must comply with all legal, ethical, funding body and organisational requirements for the generation, collection, use, storage, and security of data, especially personal data, where particular attention must be paid to the requirements of data protection legislation provided in the *GDPR* by the Information Commissioner's Office (ICO). They should also maintain confidentiality where undertakings have been made to third parties or to protect intellectual property rights. The University and its Researchers should ensure that research data relating to publications is

available to other Researchers, subject to any existing agreements on confidentiality.

3.11.2 Data must be kept intact for any legally specified period and otherwise for three years at least, subject to any legal, ethical, or other requirements, from the end of the project. It must be kept in a form that would enable retrieval by a third party, subject to limitations imposed by legislation and general principles of confidentiality (see the Medical Research Council's *GDPR* guidelines on how the law about confidentiality relates to data protection). Use of open access data repositories is encouraged and highly recommended to ensure reproducibility and efficient research on research.

3.11.3 Researchers should comply with any subject-specific requirements for the retention of data; for example, certain disciplines, such as health and biomedicine, may require research data to be retained for a considerably longer period.

3.11.4 If research involves human material obtained from licensed centres, including materials such as embryos and gametes, or through other research processes such as archaeological excavations, The University and its Researchers must comply with legal and ethical guidelines for the storage and preservation specified by relevant authorities such as the:

- *Human Fertilisation & Embryology Authority (HFEA)*; and
- *Human Tissue Authority (HTA)*.

3.11.5 If research data (and/or materials) is to be deleted or destroyed, either because its agreed period of retention has expired or for legal or ethical reasons, it must be done so in accordance with all legal, ethical, research funder and The University requirements and with particular concern for confidentiality and security.

3.11.6 **R** Researchers must consider how data will be gathered, analysed, and managed, and how and in what form relevant data will be made available to others under open research practices, at an early stage of the design of the project.

3.11.7 Researchers must collect data accurately, efficiently, and according to the agreed design of the research project and ensure that it is stored in a secure and accessible form. Processing of personal data must comply with *GDPR* guidelines.

3.12 Monitoring and Audit

3.12.1 The University and its Researchers must ensure that research projects comply with any monitoring and audit requirements. Researchers are charged with carrying out such monitoring and audits must have sufficient training, resources, and support to fulfil the requirements of the role.

3.12.2 Researchers must consider any requirements for monitoring and audit at an early stage in the design of a project.

3.12.3 Researchers should cooperate with the monitoring and audit of their research projects by applicable bodies and undertake such when required. They should cooperate with any outcomes of the monitoring and audit of their research projects. If they become aware of a need for monitoring and audit where it is not already scheduled, they should report that need to the appropriate person(s).

3.13 Peer Review

3.13.1 Researchers should be aware that peer review is an important part of good practice in the publication and dissemination of research and research findings, the assessment of applications for research grants, and in the ethics review of research projects. The University encourage and enables Researchers to act as peer reviewers for meetings, journals, and other publications, grant applications and ethics review of research proposals, and support those who do so through training and/or mentoring schemes. They should recognise the obligations of peer reviewers to be thorough and objective in their work and to maintain confidentiality, and should not put pressure, directly or indirectly, on peer reviewers to breach these obligations.

3.13.2 Researchers who carry out peer review should do so to the highest standards of thoroughness and objectivity. They should follow the guidelines for peer review of any organisation for which they carry out such work as well as the *Committee on Publication Ethics (COPE)* guidance for publication ethics.

3.13.3 Researchers who agree to peer review must be aware of and avoid both status bias (also known as the Matthew effect – see Box 2) and implicit bias (commonly known as unconscious bias – see Box 3) throughout the review process. To facilitate this, they could encourage the relevant body requesting the peer review to anonymise reviewers to author names and affiliations.

3.13.4 Researchers must maintain strict confidentiality and not retain or copy any material under review without the express written permission of the organisation which requested the review. Maintaining confidentiality includes

not sharing any material with generative AI tools. They must not make use of research designs, data, or research findings from a grant application, manuscript, or other material under review without the express permission of the author(s) and must not allow others to do so. Researchers acting as peer reviewers must declare any relevant competing interests and decline to peer review if they have significant conflicts.

3.13.5 While carrying out peer review, Researchers may become aware of possible misconduct or have ethical concerns about the design or conduct of the research. In such cases they should inform, in confidence, an appropriate representative of the organisation which requested the review, such as the editor of the relevant journal, publisher staff, or the chair of the relevant grants or ethics committee. Investigation of allegations of research misconduct is the responsibility of the publisher, funder, organisation, or other relevant bodies.

3.13.6 Researchers who submit material containing research data or information derived from machine learning algorithms and non-sensitive data should ensure all programming scripts (e.g., using Python, R or other scripting language) and data are openly accessible to reviewers.

Box 2: **The Matthew Effect (Status Bias)**

Originally developed by Merton (1968) to describe the situation in which individuals who begin in a position of relative advantage accrue greater incremental gains over individuals who begin at a position of relative disadvantage.

For example, a reviewer may give a higher score to a grant application or accept a manuscript for publication if the author is a well-known and established researcher with excellent track record. However, if the same grant or manuscript is submitted by a relatively unknown researcher (e.g., someone at the early-mid career stage), the reviewer may give a lower score on the grant or reject the manuscript for publication.

Box 3: **Implicit Bias (Unconscious Bias)**

Various biases developing gradually in the subconscious because of beliefs, assumptions and attitudes (which may or may not be ethnocentric) that reinforce stereotypes and assigns judgements on others. Examples include but are not limited to:

- Name bias
- Confirmation bias
- Conformity bias
- Affinity bias
- Gender bias
- Ageism

3.14 Dissemination of Research Outputs

Research outputs are of a wide variety. While not exhaustive, this document considers research outputs as listed in the REF 2021 as follows:

> *"217. In addition to printed academic work, research outputs may include, but are not limited to: new materials, devices, images, artefacts, products and buildings; confidential or technical reports; intellectual property, whether in patents or other forms; performances, exhibits or events; and work published in non-print media."*

REF 2019/01 Guidance on Submissions (paragraph 217)

3.14.1 Researchers must accept their duty to disseminate research outputs in a manner that reports the research and all the findings of the research accurately and without selection that could be misleading. Compliance with open research practices will add another layer of protection against this; the *Transparency and Openness Promotion (TOP)* guidelines are useful in implementing transparent research.

3.14.2 Researchers should consider and mitigate risks associated with research following interpretation of early results (e.g., from rapid publications in open peer review journals where review process is incomplete or preprints) by the media, general public, or other beneficiaries.

3.14.3 The University will seek to ensure that sponsors and funders of research respect the duty of Researchers to publish their research and the findings of their research, do not discourage or suppress appropriate publication or dissemination, and do not attempt to influence the presentation or interpretation of findings inappropriately. Activities leading to open research practices (including reproducibility and replicability) should be supported.

3.14.4 **RESEARCHERS** must address issues relating to publication and authorship, especially the roles of all collaborators and contributors, at an early stage of the design of a project, recognising that, subject to legal and ethical requirements, roles and contributions may change during the research. Decisions on publication and authorship/contributorship should be agreed jointly and communicated to all members of the research team (see *COPE* guidelines).

3.14.5 Authorship must be restricted to those contributors and collaborators who have made a significant intellectual or practical contribution to the work. See the *Contributor Roles Taxonomy (CRediT)* guidelines. No person who fulfils the criteria for authorship should be excluded from the submitted work. Authorship should not be allocated to honorary or "guest" authors (i.e., those who do not fulfil criteria of authorship). Researchers should be aware that anyone listed as an author of any work should be prepared to take public responsibility for that work and ensure its accuracy and be able to identify their contribution to it. For this reason, the use of generative AI as co-author is unacceptable.

- COPE provides further guidance on *Authorship and AI tools*.
- The *Method Reporting with Initials for Transparency (MeRIT)* system may be useful to clarify author contributions.

3.14.6 Researchers should list the work of all contributors who do not meet the criteria for authorship as an acknowledgement, with their permission. All funders and sponsors of research should be clearly acknowledged, and disclosure of interests listed.

3.14.7 Researchers must clearly acknowledge all sources used in their research and seek permission from any individuals if a significant amount of their work has been used in the publication.

3.14.8 Researchers must adhere to any conditions set by funding or other bodies regarding the publication of their research and its findings in open access repositories within a set period.

3.14.9 Researchers are required declare any potential or actual competing interest in relation to their research when reporting their findings at meetings, on social media, or in publications.

3.14.10 Researchers must be aware that submitting research outputs as publications to more than one potential publisher at any given time (i.e., duplicate submission) or publishing findings in more than one publication without disclosure and appropriate acknowledgement of any previous publications (i.e., duplicate publication) is unacceptable.

3.14.11 Researchers who are discouraged from publishing and disseminating their research or its findings or subjected to attempts to influence the presentation or interpretation of findings inappropriately, should discuss this with the appropriate person(s) in their organisation so that the matter can be resolved.

3.15 Open Access to Research Outputs, Data, Findings or Outcomes

3.15.1 The University and its Researchers should adhere to the recommendations of the *Budapest Open Access Initiative (BOAI)* when considering whether open access is granted immediately for research theses and dissertations submitted to a repository that promotes interoperability and facilitates efficient dissemination, or to embargo for a defined period with restricted access to abstract and metadata.

3.15.2 The University and its Researchers will abide by the *Concordat on Open Research Data* and follow guidance on good practice in open research and regulatory frameworks according to disciplinary norms.

3.15.3 Researchers should consider whether open access is granted immediately to support dissemination, reproducibility, and integrity of research outputs, findings, data, and other research material or to embargo full access for a limited period.

3.15.4 Researchers must specify terms that permit universal re-use, redistribution, and interoperability of research data and outputs disseminated under an **open licence** (e.g., Creative Commons) of the appropriate type and level.

The data and outputs must be available in full in a format that is convenient and modifiable.

3.16 Funding and Collaboration in Research and Enterprise

3.16.1 The University and its Researchers collaborating with commercial or other non-research organisations must have a **collaboration agreement** signed before any work commences that stipulates key roles, responsibilities, obligations, and rights of all parties, and how the research will be jointly managed. The agreement should clarify ownership of intellectual property, authorship, and specify exemptions to open licensing terms for the use of research material and legally protected databases. The agreement must reflect any funding terms and conditions including conditions for funding transfer between sponsors and collaborators or commercial partners.

3.16.2 Before agreeing to any collaboration with multi- national organisations or Researchers outside the UK, The University and Researchers must undertake a risk assessment and due diligence to ensure national security and compliance with legal requirements and financial agreements in the UK and all relevant countries. Ethical approvals (if applicable) must be in place from all relevant countries and research protocol(s) agreed upon by all parties.

3.16.3 The University and its Researchers must conduct a risk assessment for research that is subject to export control restrictions, acquiring an export licence if needed, and manage the research under appropriate Trusted Research guidelines. See the following for additional guidance:

- The government and academia *Research Collaboration Advice Team (RCAT)* provides advice on national security risks linked to international research.
- The *Higher Education Export Control Association (HEECA)* provides guidance and training on export control compliance for universities.
- Universities UK (UUK), the Centre for the Protection of National Infrastructure (CPNI – now known as the NPSA) and UK Research and Innovation (UKRI) have published guidelines on *Managing risks in international research and innovation*.

3.16.4 The University and its Researchers must ensure that agreements are in place that specify relevant terms and conditions for engaging any research partners, including commercial and other non-research organisations, in

research funded by a major grant award to the organisation or other funding agreement held by the organisation.

3.16.5 The University and its Researchers must exercise due diligence when accepting funds from businesses and multi-national consortia, including foreign government associates.

3.16.6 Researchers must ensure that any relevant ethical approvals or permissions are in place before starting **contract research** or research with high economic impact. Such research should be conducted in accordance with relevant Trusted Research guidance and appropriate sector-specific guidelines. For example:

- *The National Directive on Commercial Contract Research Studies* guide from the NHS HRA and NIHR for health and life sciences

3.17 Misconduct in Research

3.17.1 We adopt the definition in *The Concordat to Support Research Integrity*:

"Research misconduct can take many forms, including but not limited to:

- **fabrication:** making up results, other outputs (for example, artefacts) or aspects of research, including documentation and participant consent, and presenting and/or recording them as if they were real.
- **falsification:** inappropriately manipulating and/or selecting research processes, materials, equipment, data, imagery and/or consents.
- **plagiarism:** using other people's ideas, intellectual property or work (written or otherwise) without acknowledgement or permission.
- **failure to meet:** legal, ethical and professional obligations, for example:
    - not observing legal, ethical and other requirements for human research participants, animal subjects, or human organs or tissue used in research, or for the protection of the environment.
    - breach of duty of care for humans involved in research whether deliberately, recklessly or by gross

negligence, including failure to obtain appropriate informed consent.

- misuse of personal data, including inappropriate disclosures of the identity of research participants and other breaches of confidentiality.
- improper conduct in peer review of research proposals, results or manuscripts submitted for publication. This includes failure to disclose conflicts of interest; inadequate disclosure of clearly limited competence; misappropriation of the content of material; and breach of confidentiality or abuse of material provided in confidence for the purposes of peer review.

- **misrepresentation of:**
  - data, including suppression of relevant results/data or knowingly, recklessly or by gross negligence presenting a flawed interpretation of data.
  - involvement, including inappropriate claims to authorship or attribution of work and denial of authorship/attribution to persons who have made an appropriate contribution.
  - interests, including failure to declare competing interests of Researchers or funders of a study.
  - qualifications, experience and/or credentials.
  - publication history, through undisclosed duplication of publication, including undisclosed duplicate submission of manuscripts for publication.
- **improper dealing with allegations of misconduct:** failing to address possible infringements, such as attempts to cover up misconduct and reprisals against whistle-blowers or failing to adhere appropriately to agreed procedures in the investigation of alleged research misconduct accepted as a condition of funding. Improper dealing with allegations of misconduct includes the inappropriate censoring of parties through the use of legal instruments, such as non-disclosure agreements.

Honest errors and differences in, for example, research methodology or interpretations do not constitute research misconduct."

3.17.2 Any misconduct in research is unacceptable and should be reported. Researchers who are found to have committed misconduct in research deliberately may be subject to disciplinary proceedings, and where Researchers are members of a regulated profession, cases of serious misconduct in research will be referred to the body regulating their profession. Researchers who are found not to have committed misconduct will be supported and appropriate steps taken to restore their reputation and that of any relevant research project(s).

3.17.3 The University will support those who raise concerns about the conduct of research in good faith and not penalise them. This support will be in accordance with the Procedure for dealing with allegations of misconduct in research or the Student Academic Integrity Procedure and where necessary, the Public Interest Disclosure (Whistleblowing) Procedure.

3.17.4 Throughout the misconduct investigation period, The University will ensure adequate support for the welfare and wellbeing for all individuals affected, including the **respondent(s)** against whom the allegation is raised.

3.17.5 Researchers must know what constitutes misconduct in research and report any suspected misconduct through the relevant procedure of the organisation as soon as they become aware of it. They must recognise that good practice in research includes reporting concerns about the conduct of research and must cooperate with any investigation of misconduct in research when requested. Researchers must work with their institution to support those who raise concerns in good faith about the conduct of research and those who have been exonerated of suspected misconduct.

3.18 Research Culture

3.18.1 The University and its Researchers must promote uptake of good practice to improve research culture and encourage attendance to internal and external research integrity training courses, and these should be clearly and efficiently communicated to staff (inclusive of research assistants and technicians) and students across the organisation at the institutional, school, and division levels.

3.18.2 The University and Research supervisors should incorporate awareness, understanding, recognition, and management of stress, depression, anxiety, or other mental health conditions of Researchers in routine training programmes.

3.18.3 The University and Research supervisors should promote a positive workplace culture and:

a. be encouraging to and motivate other Researchers;

b. encourage good behaviour and attitude;

c. accommodate flexible working;

d. maintain work-life balance;

e. support provisions for sick leave, parental leave and caring duties;

f. avoid presenteeism; and

g. avoid unrealistic demands that increase workload but decrease productivity. Time pressure and workload issues have a significant impact on good research culture and can open the door to questionable research practices that may lead to research misconduct.