Macquarie University Code for the Responsible Conduct of Research

This document was adapted from the Australian Code for the Responsible Conduct of Research 2018, co-authored by the National Health and Medical Research Council (NHMRC), the Australian Research Council (ARC) and Universities Australia.

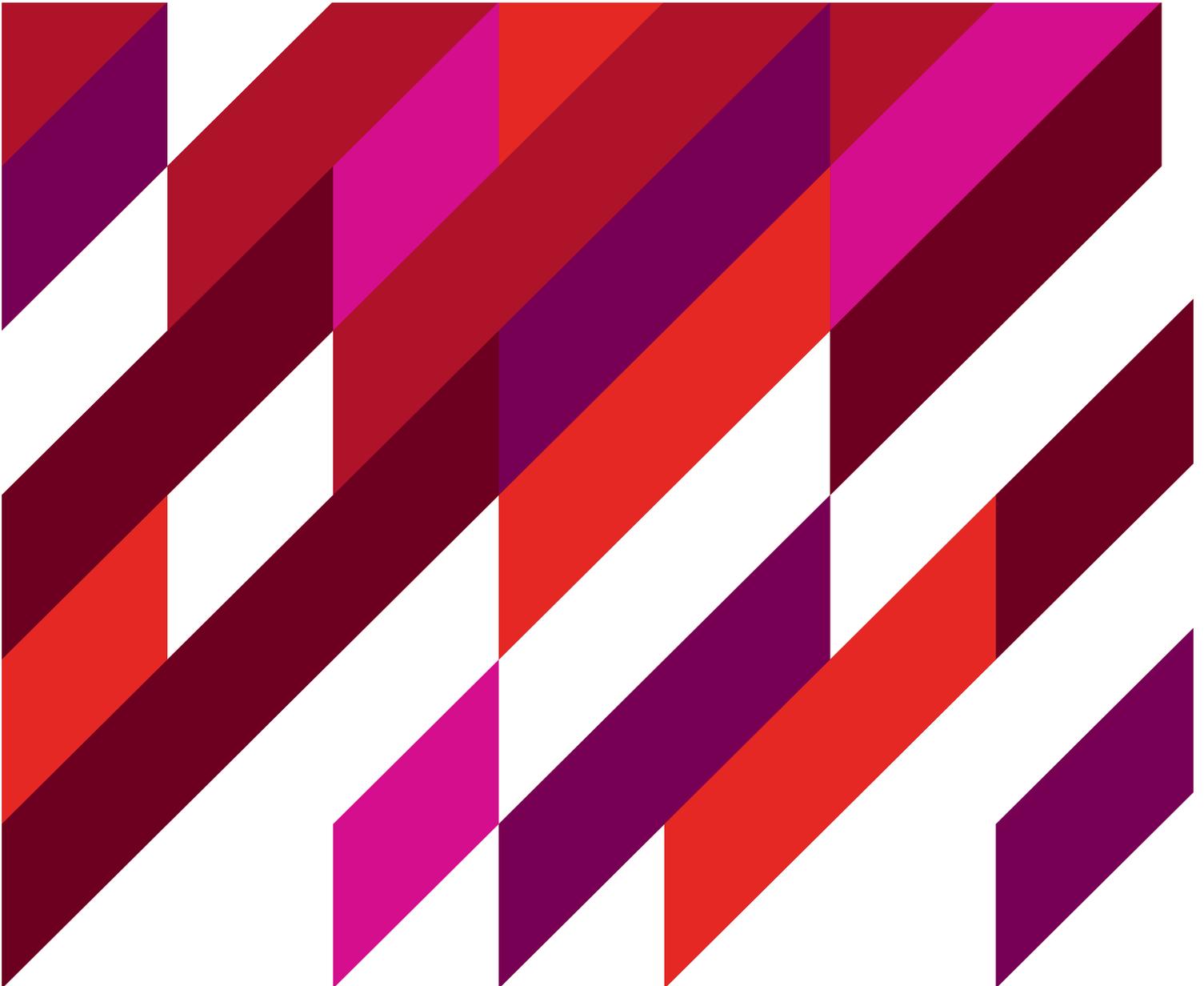2019 – Professor Sakkie Pretorius, Deputy Vice-Chancellor (Research)

Macquarie University Code for the Responsible Conduct of Research

This version of the *Macquarie University Code for the Responsible Conduct of Research* is effective from July 2019 and replaces all previous versions.

Signed:

Professor Sakkie Pretorius, Deputy Vice-Chancellor (Research)

Macquarie University Code for the Responsible Conduct of Research

1. General

1.1 Introduction

a. Macquarie University, along with the Australian and international community, expects research to be conducted responsibly, ethically and with the highest standards of integrity.

b. The *Australian Code for the Responsible Conduct of Research* (*Australian Code*) 2018 authored by the National Health and Medical Research Council (NHMRC), the Australian Research Council (ARC) and Universities Australia, establishes a framework for responsible research conduct that provides a foundation for high-quality research, credibility and community trust in the research endeavor.

c. The broad principles and responsibilities outlined in the *Australian Code* to characterise an honest, ethical and conscientious research culture have been adopted in full in this document, the *Macquarie University Code for the Responsible Conduct of Research* (*Macquarie Research Code*), and are expected to be applied to the conduct of all research under the auspices of Macquarie University.

1.2 Purpose

a. The *Macquarie Research Code* is in place to ensure that research being undertaken under the auspices of Macquarie University is conducted with the highest standards of ethics, responsibility and integrity. This document articulates:

    i. core principles that must be applied, that underpin responsible research,

    ii. responsibilities which researchers are expected to meet when conducting research, and

    iii. responsibilities of Institutions in the support and guidance of responsible research.

b. The application of these principles and responsibilities to various research processes are further detailed in accompanying standards and/or related policies. Researchers must familiarise themselves with and abide by these to ensure that best practice is applied.

1.3 Scope

a. This document should be read in conjunction with the related University policies and standards (listed in **section 4**).

    i. The *Macquarie Research Code* applies to anyone who conducts research or research support under the auspices of Macquarie University.

This includes, but is not limited to, all academic staff, professional staff, students, and technical staff, as well as visiting academics and conjoint appointees, who are involved in research or the support of research under the auspices of Macquarie University, regardless of their location.

ii.   In the conduct of research, researchers must be aware of and abide by the *Macquarie Research Code*, accompanying standards, related University policies and procedures, all applicable laws, legislation, guidelines, codes of conduct and project agreements.

iii.   The *Macquarie Research Code* does not outline or incorporate the laws, regulations, guidelines and other codes of practice that may apply to the conduct of research. Researchers are expected to be aware of, and comply with, those that are applicable to their research.

iv.   The *Macquarie Research Code* and associated documents will be reviewed periodically, or when changes are made to related policies, the *Australian Code*, the *Guide to Managing and Investigating Potential Breaches of the Australian Code for the Responsible Conduct of Research* (*Australian Guide*), or to the guides issued by the NHMRC, ARC and Universities Australia.

2.   Principles of responsible research

Macquarie University expects the following core principles to be applied to the conduct of research:

2.1   Honesty in the development, undertaking and reporting of research:

a.   Present information truthfully and accurately in proposing, conducting and reporting research.

2.2   Rigour in the development, undertaking and reporting of research:

a.   Underpin research by attention to detail and robust methodology, avoiding or acknowledging biases.

2.3   Transparency in declaring interests and reporting research methodology, data and findings:

a.   Share and communicate research methodology, data and findings openly, responsibly and accurately.

b.   Disclose and manage conflicts of interest.

2.4   Fairness in the treatment of others:

a.   Treat fellow researchers and others involved in the research fairly and with respect.

b.   Appropriately reference and cite the work of others.

c.   Give credit, including authorship where appropriate, to those who have contributed to the research.

2.5 **Respect** for research participants, the wider community, animals and the environment:

  a.   Treat human participants and communities that are affected by the research with care and respect, giving appropriate consideration to the needs of minority groups or vulnerable people.

  b.   Ensure that respect underpins all decisions and actions related to the care and use of animals in research.

  c.   Minimise adverse effects of the research on the environment.

2.6 **Recognition** of the right of Aboriginal and Torres Strait Islander peoples to be engaged in research that affects or is of particular significance to them:

  a.   Recognise, value and respect the diversity, heritage, knowledge, cultural property and connection to land of Aboriginal and Torres Strait Islander peoples.

  b.   Engage with Aboriginal and Torres Strait Islander peoples prior to research being undertaken, so that they freely make decisions about their involvement.

  c.   Report to Aboriginal and Torres Strait Islander peoples the outcomes of research in which they have engaged.

2.7 **Accountability** for the development, undertaking and reporting of research:

  a.   Comply with relevant legislation, policies and guidelines.

  b.   Ensure good stewardship of public resources used to conduct research.

  c.   Consider the consequences and outcomes of research prior to its communication.

2.8 **Promotion** of responsible research practices:

  a.   Promote and foster a research culture and environment that supports the responsible conduct of research.

3.   Key responsibilities

Researchers must uphold the principles of responsible research conduct in all aspects of their research. To this end, researchers must meet the following responsibilities:

3.1   Support a culture of responsible research conduct at their institution and in their field of practice.

3.2   Provide guidance and mentorship on responsible research conduct to other researchers or research trainees under their supervision and, where appropriate, monitor their conduct.

3.3   Undertake and promote education and training in responsible research conduct.

3.4   Comply with the relevant laws, regulations, disciplinary standards, ethics guidelines and institutional policies related to responsible research conduct. Ensure that appropriate research

approvals are obtained prior to the commencement of research, and that conditions of any approvals are adhered to during research.

3.5 Ensure that the ethics principles of research merit and integrity, justice, beneficence and respect are applied to human research as set out in the *National Statement on Ethical Conduct in Human Research*.

3.6 Engage with Aboriginal and Torres Strait Islander peoples and respect their legal rights and local laws, customs and protocols.

3.7 Ensure that the 3Rs (Replacement, Reduction and Refinement) are considered at all stages of research involving animals and minimise the impacts on animals used in research and in so doing support the welfare and wellbeing of these animals, in accordance with the *Australian Code of Practice for the Care and Use of Animals for Scientific Purposes*.

3.8 Adopt methods appropriate to the aims of the research and ensure that conclusions are justified by the results.

3.9 Retain clear, accurate, secure and complete records of all research including research data and primary materials as appropriate for the discipline. Where possible and appropriate, allow access and reference to these by interested parties.

3.10 Disseminate research findings responsibly, accurately and broadly. Where necessary, take action to correct the record in a timely manner.

3.11 Disclose and manage actual, potential or perceived conflicts of interest.

3.12 Ensure that authors of research outputs are all those, and only those, who have made a significant intellectual or scholarly contribution to the research and its output, and that they agree to be listed as an author.

3.13 Acknowledge those who have contributed to the research.

3.14 Cite and acknowledge other relevant work appropriately and accurately.

3.15 Participate in peer review in a way that is fair, rigorous and timely and maintains the confidentiality of the content.

3.16 Report suspected breaches of the *Macquarie Research Code* in a timely manner to the relevant institution and/or authority. Suspected breaches involving a Macquarie University researcher will be managed under the *Macquarie University Research Code Complaints, Breaches and Investigation Procedure* (Macquarie Research Code Procedure, see section 5).

4. Procedural standards and key related policies

4.1 Information describing how the principles and responsibilities of the *Macquarie Research Code* must be applied to specific research processes at Macquarie University are detailed in the following standards and policies which align with the expectations outlined in guides issued by the NHMRC, ARC and Universities Australia.

4.2 Standards

  a. Authorship Standards
  b. Collaborative Research Standards
  c. Conflict of Interest Standards
  d. Peer Review Standards
  e. Publication and Dissemination Standards
  f. Research Data Management Standards
  g. Research Supervision Standards

4.3 Policies

  a. Conflict of Interest Policy
  b. Higher Degree Research Supervision Policy

4.4 Researchers are expected to abide by all University policies and standards that apply to their research.

5. Complaints and Breaches

5.1 A breach may arise where a researcher has failed to meet the principles and responsibilities of the *Macquarie Research Code* (including failing to meet the relevant standard or policy)**.** Breaches occur on a spectrum from minor to more serious breaches. A breach of the *Macquarie Research Code* which is considered serious and is also intentional or reckless or negligent may be considered research misconduct.

5.2 All researchers have an obligation to report possible breaches in accordance with the *Macquarie University Research Code Complaints, Breaches and Investigation Procedure*. Self-disclosure of breaches is strongly encouraged.

5.3 The *Macquarie University Research Code Complaints, Breaches and Investigation Procedure* describes how potential or actual breaches from the principles and responsibilities outlined in the *Macquarie Research Code* and accompanying standards should be reported, assessed, investigated and managed.

6. Institutional responsibilities

Macquarie University will foster and encourage a culture of responsible research conduct by implementing the following institutional responsibilities as listed in the *Australian Code*:

6.1 Establish and maintain good governance and management practices for responsible research conduct.

6.2 Identify and comply with relevant laws, regulations, guidelines and policies related to the conduct of research.

6.3 Develop and maintain the currency and ready availability of a suite of policies and procedures which ensure that institutional practices are consistent with the principles and responsibilities of the *Macquarie Research Code*.

6.4   Provide ongoing training and education that promotes and supports responsible research conduct for all researchers and those in other relevant roles.

6.5   Ensure supervisors of research trainees have the appropriate skills, qualifications and resources.

6.6   Identify and train Research Integrity Advisors who assist in the promotion and fostering of responsible research conduct and provide advice to those with concerns about potential breaches of the *Macquarie Research Code*.

6.7   Support the responsible dissemination of research findings. Where necessary, take action to correct the record in a timely manner.

6.8   Provide access to facilities for the safe and secure storage and management of research data, records and primary materials and, where possible and appropriate, allow access and reference.

6.9   Facilitate the prevention and detection of potential breaches of the *Macquarie Research Code.*

6.10 Provide mechanisms to receive concerns or complaints about potential breaches of the *Macquarie Research Code*. Investigate and resolve potential breaches of the *Macquarie Research Code.*

6.11 Ensure that the process for managing and investigating concerns or complaints about potential breaches of the *Macquarie Research Code* is timely, effective and in accord with procedural fairness.

6.12 Support the welfare of all parties involved in an investigation of a potential breach of the *Macquarie Research Code*.

6.13 Base findings of investigations on the balance of probabilities and ensure any actions are commensurate with the seriousness of the breach.

7.   Definitions

The following definitions have been adapted and modified from the *Australian Code.*

Term	Definition
3Rs	The 3Rs are three principles that underpin a systematic framework to achieve the goal of humane experimental techniques. The principles are: • Replacement of animals with other methods; • Reduction in the number of animals used; and • Refinement of techniques used to minimise the adverse impact on animals.
Breach	A failure to meet the principles and responsibilities of the *Macquarie Research Code* (including failing to meet the standards accompanying the *Macquarie Research Code*). Breaches occur on a spectrum from minor to more serious breaches. A serious breach of the *Macquarie Research Code* which is also intentional or reckless or negligent constitutes research misconduct.

This Code may be varied, withdrawn or replaced at any time. Printed copies, or part thereof, are regarded as uncontrolled and should not be relied upon as the current version. It is the responsibility of the individual reading this document to refer to Macquarie University Policy Central for the current version.

Macquarie University Code for the Responsible Conduct of Research   1.6
Version 2.0 (effective July 2019)

Term	Definition
Conflict of interest	A conflict of interest refers to circumstances in which someone's personal interests may conflict with their professional obligations. A conflict of interest exists when a reasonable person might perceive that an individual's personal interest(s) could be favoured over their professional obligations.
Macquarie Research Code Procedure	The *Macquarie University Research Code Complaints, Breaches and Investigation Procedure* (Macquarie Research Code Procedure) outlines the process for managing complaints, concerns or allegations, regarding the conduct of research and describes how potential or actual departures from the principles and responsibilities outlined in the *Macquarie University Code for the Responsible Conduct of Research*, should be reported, assessed, investigated and managed.
Peer review	Peer review is the impartial and independent assessment of research by others with appropriate expertise.
Research	The concept of research is broad and includes the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies, inventions and understandings. This could include synthesis and analysis of previous research to the extent that it is new and creative.
Research misconduct	A serious breach of the *Macquarie Research Code* which is also intentional or reckless or negligent. Refer to the *Managing and Investigating Breaches of Responsible Research Conduct Procedure* for more information.
Research data	Research data includes, but is not limited to, primary materials or information held in any format or media, on which an argument, theory, test or hypothesis, or another research output is based. Research data may be in the form of facts, observations, images, computer program results, recordings, questionnaires/surveys, biographies, audio files, physical specimens or artefacts, measurements, experiences or various other forms. Data may be numerical, descriptive, visual or tactile and could be raw, cleaned or analysed.
Research output	Any record that communicates or makes available the findings of research. A research output may be in any form (hardcopy, electronic, creative work or other) of academic or public communication of the research from any stage of the research process (eg. including but not limited to: a professional blog, web-based publications, books, performances, book chapters, Higher Degree Research thesis chapters, conference papers, reports, datasets or journal articles).
Researcher	Any person (or persons) who conducts, or assists with the conduct of, research under the auspices of Macquarie University - may include staff members (academic and professional), visiting students, visiting fellows, volunteers, honorary and adjunct title holders, Emerita/us Professors, occupational trainees and any student in any course at the University who conducts or assists with the conduct of research at or on behalf of the University.
Research Integrity Advisor (RIA)	A member of Macquarie University staff who has been nominated by the DVC(R) to promote the responsible conduct of research and provide advice to those with concerns or complaints about potential breaches of the *Macquarie Research Code*. Research Integrity Advisors are people with research experience, wisdom, analytical skills, empathy, knowledge of the University's policy and management structure, and familiarity with the accepted practices in research.

8. Abbreviations

Abbreviation	Definition
NHMRC	National Health and Medical Research Council
ARC	Australian Research Council
Australian Code	Australian Code for the Responsible Conduct of Research 2018
Australian Guide	Guide to Managing and Investigating Potential Breaches of the Australian Code for the Responsible Conduct of Research
Macquarie Research Code	Macquarie University Code for the Responsible Conduct of Research
Macquarie Research Code Procedure	Macquarie University Research Code Complaints, Breaches and Investigation Procedure

9. Key related documents

9.1 Macquarie University policies and standards
a. Macquarie University Research Code Complaints, Breaches and Investigation Procedure
b. Authorship Standards
c. Collaborative Research Standards
d. Conflict of Interest Policy, and Conflict of Interest Standards
e. Higher Degree Research Supervision Policy
f. Peer Review Standards
g. Publication and Dissemination Standards
h. Research Data Management Standards
i. Research Supervision Standards

9.2 External documents
a. Australian Code for the Responsible Conduct of Research 2018
b. Australian Code of Practice for the Care and Use of Animals for Scientific Purposes
c. Guide to Managing and Investigating Potential Breaches of the Australian Code for the Responsible Conduct of Research
d. Guidelines for Ethical Research in Australian Indigenous Studies
e. National Statement on Ethical Conduct in Human Research

10. Commencement and amendment history

10.1	Contact Officer		Research Integrity Office
10.2	Implementation Officer		Director, Research Ethics and Integrity
10.3	Approval Authority / Authorities		Deputy Vice-Chancellor (Research)
10.4	Date Approved		July 2019
10.5	Date of Commencement		July 2019
10.6	Documents superseded by this document		*Macquarie Code for the Responsible Conduct of Research* (2014) (last updated 21 June 2017)
10.7	**Amendment History**		
Version	**Approved by**	**Effective date**	**Sections modified**
2.0	Deputy Vice-Chancellor (Research)	July 2019	This Code supersedes the first edition of the *Macquarie Code for the Responsible Conduct of Research* (2014) (last updated 21 June 2017)