Macquarie University Authorship Standard

1. General

1.1 Introduction

a. This standard supplements the Macquarie University Code for the Responsible Conduct of Research (Macquarie Research Code) and outlines the expected standards for managing authorship and recognition of those who have contributed to research.

b. This standard reflects the expectations outlined in Authorship – A guide supporting the Australian Code for the Responsible Conduct of Research (Authorship Guide) issued by the National Health and Medical Research Council (NHMRC), the Australian Research Council (ARC) and Universities Australia (UA). Some sections of this standard are partially reproduced from the guide.

1.2 Purpose of this standard

a. Details the criteria for the attribution of authorship for all research outputs.

b. Outlines the responsibilities of the authors of a research output.

c. Outlines the necessary steps to be taken to confirm authorship of a research output, prior to its submission for publication and distribution, or its submission as a component of a Higher Degree Research thesis by publication.

d. Describes the standards which must be applied to the assignment of credit and fair acknowledgment of others’ contributions in work presented in research records (such as in research proposals or grant applications).

e. Delineates the process for managing disagreements about the attribution of authorship.

1.3 Scope

a. This standard applies to anyone who conducts research or research support under the auspices of Macquarie University, in accordance with the Macquarie Research Code.

b. This standard applies to all research outputs by researchers of Macquarie University, including but not limited to those that are published or distributed academically or publicly, such as books, monographs, journal articles, conference papers, creative works, web-based publications, professional blogs, reports or exhibitions, and may equally apply to other research records such as research proposals, grant applications and other peer reviewed research-associated documents.

c. Authors may consult with a Research Integrity Advisor (RIA) at any time for advice in relation to the implementation of this standard.
d. Disputes or complaints relating to the attribution of authorship or the fair assignment of credit to those who have contributed to research must be managed according to the process described in this standard (section 2.7).

1.4 Definitions

The following definitions have been adapted and modified from the Australian Code for the Responsible Conduct of Research (2018) (Australian Code) and the Authorship Guide.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Author</td>
<td>An individual who has made a substantial intellectual or scholarly contribution to research and its output (as detailed in section 2.2) and agrees to be listed as an author.</td>
</tr>
<tr>
<td>Author Contribution Statement</td>
<td>A statement outlining the contributions of each author to a research output. An authorship statement is often required by publishers and a brief version may accompany an article being published. An Authorship Contribution Statement must be completed for all research outputs that form a component of a Higher Degree Research Thesis, and should accompany all theses submitted for examination.</td>
</tr>
<tr>
<td>Breach</td>
<td>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 occurrences. A serious breach of the Macquarie Research Code which is also intentional or reckless or negligent constitutes research misconduct. For example, the following conduct in authorship would constitute a breach: Failure to acknowledge the contributions of others fairly Misleading ascription of authorship including failing to offer authorship to those who qualify or awarding authorship to those who do not meet the criteria.</td>
</tr>
<tr>
<td>Contributor</td>
<td>A person who has contributed to research being reported in a research output or research record. The criteria described in this standard should be used to determine if a contributor qualifies as an author or if their input should be acknowledged in another way.</td>
</tr>
<tr>
<td>Corresponding author</td>
<td>The corresponding author is the one agreed upon by all co-authors to be responsible for record keeping and administrative matters regarding the research output. This may include, but is not limited to: overseeing drafts and managing changes, handling or directing communication among co-authors/publishers, and maintaining a record of authorship agreements. The responsibilities of the corresponding author may differ according to discipline and publisher requirements.</td>
</tr>
<tr>
<td>Data</td>
<td>Data refers to research data, which includes primary materials or information held in any digital format or media, or anything that can be digitised 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.</td>
</tr>
</tbody>
</table>

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<tr>
<td>ORCID</td>
<td>An Open Researcher and Contributor ID (ORCID) is a unique researcher identifier. ORCID provides a lifelong digital name to prevent ambiguity of the identity and attribution of researchers and research.</td>
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<tr>
<td>Macquarie Research Code</td>
<td><em>Macquarie University Code for the Responsible Conduct of Research</em></td>
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<tr>
<td>Macquarie Research Code Procedure</td>
<td>The <em>Macquarie University Research Code Complaints, Breaches and Investigation Procedure</em> 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 <em>Macquarie Research Code</em> should be reported, assessed, investigated and managed.</td>
</tr>
<tr>
<td>Research</td>
<td>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.</td>
</tr>
<tr>
<td>Research output</td>
<td>Any record that communicates or distributes the products of research. A research output may include any form (hardcopy, electronic, creative work or other) of academic or public communication of the research from any stage of the research process, including but not limited to: a professional blog, web-based publications, books, performances, book chapters, Higher Degree Research thesis chapters, conference papers or journal articles.</td>
</tr>
<tr>
<td>Researcher</td>
<td>Any person who conducts, or assists with the conduct of, research under the auspices of Macquarie University which 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.</td>
</tr>
<tr>
<td>Research Integrity Advisor (RIA)</td>
<td>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 <em>Macquarie Research Code</em>. RIAs 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.</td>
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2. **General principles**

2.1 **Planning**

a. The individuals involved in a research activity, and their proposed roles, should be planned and documented at the early stages of a project and revised regularly. As research proceeds it may be appropriate for further individuals to be invited to contribute and the level of involvement of individuals may change. The following principles apply to recognising the involvement of all those who have contributed to research:

   i. All contributors to the research must be honestly and equitably acknowledged, and their involvement fairly represented in research outputs.
2.2 Criteria for authorship attribution in a research output

a. To be eligible as an author of a research output, a person must have been directly involved in its creation by making a substantial intellectual or scholarly contribution, in at least one, and usually a combination of two or more, of the following criteria:

i. conceiving or designing the project or output
ii. acquiring data where this has involved significant intellectual judgment, planning, design or input
iii. contributing knowledge, where justified, including indigenous knowledge
iv. analysing and interpreting the data; or
v. writing or critically revising significant parts of the intellectual content of the research output, to the extent that this contributes to its interpretation.

b. Students and junior researchers who have made a substantial intellectual or scholarly contribution as above, are entitled to authorship, notwithstanding that they may have been closely supervised.

c. To the extent that Aboriginal and Torres Strait Islander Peoples contribute their own or community knowledge to any research which affects, or is of particular significance to them, their knowledge and contributions must be acknowledged in any subsequent research output, including as an author where appropriate.

d. A contributor who has had a significant involvement in the work underpinning a research output, but does not meet any of the above criteria, should not be listed as an author, but should be acknowledged (see section 2.5).

e. Authorship should not be attributed solely on the basis of:

i. the provision of funding, data, materials, infrastructure or access to equipment
ii. the provision of routine technical support, technical advice or technical assistance
iii. the position or profession of an individual, such as their role as the author’s supervisor or head of department, research centre or school (‘gift authorship’) 
iv. whether the contribution was paid for or voluntary
v. the status of an individual who has not made a significant intellectual or scholarly contribution being such that it would elevate the esteem of the research (‘guest authorship’).
2.3 Author order and accountabilities

a. When there is more than one author of a research output:
   i. All authors are collectively responsible for the accuracy and integrity of the
      authorship list.
   ii. Author order should be assigned fairly and in accordance with authorship
       conventions appropriate to the discipline. These requirements may vary over time
       according to discipline, publisher requirements and funding provisions. Researchers
       should be familiar with international best practice in their discipline.
       - In general, the person who has completed most of the work should be listed as
         the first author (for example, in many cases, a Higher Degree Research
         candidate or post doctoral fellow).
       - In some research outputs, where typical convention is not being followed, or
         where multiple authors have made equal contributions (making ascription to first
         or lead author difficult), a note should be added detailing how authorship order
         has been decided (e.g. a statement that “authorship order has been assigned
         alphabetically”, or “author order is based on the percent contribution of the
         authors”).

b. One co-author should be nominated as the corresponding author for the purpose of
   administration and management of the research output. The corresponding author will
   generally take primary responsibility for all associated record keeping. This includes
   maintaining a record of authorship agreements (section 2.4b and 2.4.c), overseeing drafts
   and changes, managing the production of the final version and directing communication
   with publishers, co-authors and or other stakeholders. The corresponding author is also
   responsible for making sure any journal requirements regarding authorship, publication or
   data management (including data dissemination) are met (for example – ensuring that
   author contribution statements or data availability statements are accurately completed).
   The responsibilities of the corresponding author may differ according to discipline and
   publisher requirements.

c. An author is responsible for ensuring the accuracy and integrity of their contribution to the
   research output and must adhere to the principles of the Macquarie Research Code.

d. An author’s role in a research output must be sufficient for that person to take public
   responsibility for at least that part of the output in that person’s area of expertise.

e. Authors must take reasonable steps to ensure the accuracy and integrity of the
   contributions of all other co-authors. They must at the least be able to identify which co-
   authors are responsible for specific parts of the work and raise any concerns prior to
   publication.

f. Following publication, all authors must ensure that any concerns about the accuracy or
   integrity of any part of the output are appropriately responded to. This may mean providing
   all necessary evidence to demonstrate the integrity of their contribution or seeking such
   evidence from the other co-authors. It may result in correcting the public record by way of
   erratum or retraction.
2.4 Planning for and approving authorship

a. A list of contributors that may qualify as authors should be discussed as early as is reasonable following the commencement of a project and should be revised throughout the research project. Researchers can use the Authorship Planning Form to record their plans.

b. Where the involvement of more than one contributor qualifies them as an author (as per section 2.2.a), it is best practice for an authorship plan to be in place before the commencement of writing up a research project (researchers can use the Authorship Planning Form to record their plans early in their project). At the least, authorship (including the author order) must be agreed upon prior to a research output being published or distributed. A record of authorship agreement, any changes to the agreement and a summary of author contributions must be retained as follows:

i. For any research output that will be submitted as a component of a Higher Degree Research thesis, a record of the contributions of all authors and their agreement to authorship (using the Macquarie University Authorship Contribution Statement template) should be completed prior to its submission for publication and distribution, and must be completed prior to thesis submission for examination. A copy of the completed Statement must be submitted with the thesis for examination and a copy retained by the corresponding author.

ii. For all other research outputs a record of the authorship contributions and agreement can be documented via the Authorship Contribution Statement template. However, the use of this form is optional and any method of written confirmation of authorship is sufficient (an agreement may be in the form of emails, a transcript of an online discussion or similar).

c. In addition to the criteria for authorship outlined in section 2.2a, all authors must give their agreement to the final version of the research output to be published or distributed and retain a record of that agreement (via the Authorship Contribution Statement template provided, or email for example). Minor corrections (eg correction of typographical errors) to proofs may be completed by the corresponding author without the need for further agreement. However, substantial changes in content (eg, new results, corrected values, and changes of title and authorship) should not take place without the approval of all authors.

d. A person who qualifies as an author must not be included or excluded without their express written agreement, except in rare cases where all of the following conditions are met and special permission for their inclusion or exclusion has been gained from their Associate Dean of Research:

i. the person who would qualify as an author has left Macquarie University and appropriate attempts have been made to contact them;

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ii. the data or materials on which the research output is based are stored in an appropriate institutional repository or in accordance with the Research Data Management Standard accompanying the Macquarie Research Code;

iii. where that person (referred to above) was responsible for the collection or generation of the data or materials upon which the research output is based, another researcher who qualifies as an author (according to section 2.2.a) was nominated as a custodian of the data or materials when they left the University, or reasonable grounds exist to assign custodianship to another of the proposed authors (for example they are the principal supervisor of the person or the principal investigator on the project);

iv. the other authors have confidence in the accuracy and integrity of that person’s contribution, to the extent that they will subsequently be taking on the full responsibility for that part of the output.

e. Subject to agreement with the publisher of the research output, if there are reasonable grounds to believe that a deceased person would have agreed to be an author, the deceased person meets the criteria for inclusion as an author listed in section 2.2.a, and the additional conditions for authorship listed above can be met (listed in section 2.4.d.ii to iv), they should also be included. There should be an appropriate author information note indicating that the author is included posthumously and outlining their contribution. Similarly, if a deceased person meets the criteria for acknowledgement, and there are reasonable grounds to believe they would have agreed to be acknowledged, they should be so acknowledged (section 2.5).

2.5 Acknowledging other contributions

a. Contributors who do not qualify as authors should be named in the footnotes and/or in the acknowledgements (where the publisher/medium provides for this) in a manner consistent with the norms of the research field or discipline.

b. An author must ensure the work of others (including but not limited to cultural advisors, reference groups, students, research assistants and technical officers) are recognised in a publication derived from research to which they have contributed. Individuals and organisations providing services or access to facilities, samples or reference collections must also be fully acknowledged.

c. It is best practice to obtain permission from named contributors before acknowledging them in research outputs. Regarding the publication of indigenous knowledge (obtained, for example, through unpublished manuscripts, audio or video recordings), approval should be obtained from the people or community from which the knowledge originates prior to acknowledgment of the contribution.

2.6 Mentor early career researchers in authorship

a. Research mentors and supervisors have a responsibility to assist research trainees (including but not limited to Higher Degree Research candidates and early career researchers) in understanding and applying these standards.
2.7 Authorship grievances

a. Misunderstandings or miscommunications about authorship are common and it can be helpful to initially discuss any matters of concern with a Research Integrity Advisor (RIA).

b. An objection relating to authorship attribution (inclusion or exclusion) or author order may arise prior to or after publication or distribution.

c. One of the following processes should be followed to address authorship grievances:

i. If an individual has an objection in relation to the authorship or author order of a research output not yet published or distributed, they should seek the guidance of an RIA. An RIA may assist to resolve the matter through direct dialogue with the other parties. If those involved are unable to settle a disagreement with the assistance of an RIA, the matter may be referred to the Director, Research Ethics and Integrity (DREI) for review. An outline of the process is set out in section 3.

ii. If an individual has an objection in relation to the authorship of research which has already been published or distributed, they should outline their complaint in writing to the DREI who may progress the matter in accordance with the Macquarie Research Code Procedure (see section 2.8).

d. Disputes pertaining to the order of authors on a research output (in draft or published) are generally referred from the DREI to the Executive Dean of the relevant Faculty, or to another Executive (or their delegate) for resolution by mediation or other appropriate dispute resolution process.

2.8 Breach of the Macquarie Research Code

Failure to comply with the requirements of this standard may amount to a breach of the Macquarie Research Code. Potential breaches of the Macquarie Research Code will be managed in accordance with the Macquarie Research Code Procedure. Authorship disputes do not necessarily relate to a potential breach. Examples of the types of conduct in authorship that may represent a breach can be found in section 6 of the Authorship Guide.

3. Authorship grievance process

a. Authorship grievances requiring review by the DREI should be sent to the DREI (copied to the Research Integrity Office) with a summary of the grievance, details of any RIA initially consulted and all relevant documentation.

b. The following information must be provided:

i. Authorship declaration: A copy of the documentation or correspondence used for acknowledging authorship (can include email records, meeting notes, an Authorship Contribution Statement for Higher Degree Researchers or any other Authorship Agreement where one has been completed).
ii. **Evidence of authorship and contribution**: Copies of any documents showing how each author has met the criteria for authorship attribution, for example:

- the drafts and the final publication of the research output;
- a list of all authors that are valid and the reasons why;
- a list of any other authors believed to have contributed to the publication and evidence supporting why they should be acknowledged.

c. The process for review is as follows:

i. The DREI, will review the matter and determine whether it should be:
   a) Resolved in accordance with recommendation(s) made by the DREI, or
   b) Referred to an Executive Dean (or their delegate) for review and recommendation for resolution, or
   c) Assessed in accordance with the Macquarie Research Code Procedure.

ii. The DREI, or the Executive Dean, may make one or more of the following directions to parties to resolve the dispute:

- Remove researchers deemed as failing to meet the authorship criteria and/or acknowledge their contributions, as appropriate;
- Include all researchers that are deemed as having met the authorship criteria;
- Revise the authorship order on the publication;
- Any other direction deemed appropriate.

iii. At the conclusion of the review, the co-authors and/or complainant will be advised of the outcome in writing.

4. **Abbreviations**

<table>
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<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>NHMRC</td>
<td>National Health and Medical Research Council</td>
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<tr>
<td>ARC</td>
<td>Australian Research Council</td>
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<tr>
<td>Australian Code</td>
<td>Australian Code for the Responsible Conduct of Research 2018</td>
</tr>
<tr>
<td>Authorship Guide</td>
<td>Authorship – A guide supporting the Australian Code for the Responsible Conduct of Research</td>
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<tr>
<td>DREI</td>
<td>Director of Research Ethics and Integrity</td>
</tr>
<tr>
<td>DVC(R)</td>
<td>Deputy Vice-Chancellor (Research)</td>
</tr>
<tr>
<td>Macquarie Research Code</td>
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<tr>
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</table>
5. Key related documents

5.1 Macquarie University policies and standards
   a. Macquarie University Code for the Responsible Conduct of Research
   b. Macquarie University Research Code Complaints and Investigation Procedure
   c. Collaborative Research Standard
   d. Conflict of Interest Policy
   e. Higher Degree Research Supervision Policy
   f. Peer Review Standard
   g. Publication and Dissemination Standard
   h. Research Data Management Standard
   i. Research Supervision Standard

5.2 External documents
   a. Australian Code for the Responsible Conduct of Research
   b. Authorship – A guide supporting the Australian Code for the Responsible Conduct of Research
   c. Committee on Publication Ethics (COPE), ‘What constitutes authorship?’
   d. Ethical guidelines for research with Aboriginal and Torres Strait Islander Peoples (NHMRC)
   e. Guidelines for Ethical Research in Australian Indigenous Studies (AIATSIS)
   f. International Committee of Medical Journal Editors (ICMJE), ‘Defining the Role of Authors and Contributors’

6. Commencement and amendment history

<table>
<thead>
<tr>
<th>6.1</th>
<th>Contact Officer</th>
<th>Research Integrity Office</th>
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</thead>
<tbody>
<tr>
<td>6.2</td>
<td>Implementation Officer</td>
<td>Director, Research Ethics and Integrity</td>
</tr>
<tr>
<td>6.3</td>
<td>Approval Authority / Authorities</td>
<td>Deputy Vice-Chancellor (Research)</td>
</tr>
<tr>
<td>6.4</td>
<td>Date Approved</td>
<td>30 October 2020</td>
</tr>
<tr>
<td>6.5</td>
<td>Date of Commencement</td>
<td>November 2020</td>
</tr>
<tr>
<td>6.6</td>
<td>Documents Superseded by this document</td>
<td>Authorship Standard_interim 2019 07 22</td>
</tr>
<tr>
<td>6.7</td>
<td>Amendment History</td>
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<td>Version</td>
<td>Approved by</td>
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<tr>
<td>1.0</td>
<td>Prof. Sakkie Pretorius, Deputy Vice-Chancellor Research</td>
<td>November 2020</td>
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