

Procedures

Policy Name	Applied Research Integrity		
Policy #	1101	Category	Research and Scholarly Activity
Policy Sponsor	Associate Vice-President Research and Innovation	Previous Revision Date	May 6, 2014
Policy Approved by	President and CEO	Revision Date	June 4, 2020
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See the related **POLICY**.

DEFINITIONS

PROCEDURES

1. Responsibilities of principal investigators and supervisors

- 1.1 The responsibilities of principal investigators and supervisors at Saskatchewan Polytechnic (Sask Polytech) are to:
 - Ensure that all research is conducted to the highest possible ethical standard with scholarly and academic integrity (see Policy 1102: Ethics of Research Involving Human Participants).
 - Provide research collaborators, students, staff and research assistants with all reasonable information necessary to prevent misconduct as defined in this policy.
 - Monitor the work of students, research assistants and others, and oversee the designing of research methodology and the processes of acquiring, recording, examining, interpreting and storing data. Simply editing the results of a research project does not constitute supervision.
 - Initiate and participate in regular collegial discussions among all research personnel in a research unit in order to contribute to the scholarly efforts of group members and to provide informal review.
 - Verify the authenticity of all data or other factual information generated in the research.

2. Data collection and retention

- 2.1 The retention of accurately recorded and retrievable results is of the utmost importance for the progress of scholarly inquiry.
- 2.2 A researcher must have access to their original results in order to respond to questions regarding their research. Errors may be mistaken for misconduct when the primary experimental results are unavailable.

- 2.3 Primary data (e.g., questionnaires) should normally remain in the applied research centre/program at all times and should be preserved as long as there is a reasonable need to refer to them.
- 2.4 Results should be retrievable for five years following publication or completion of the applied research project if there was no publication. In no instance should primary data be destroyed while investigators, colleagues, research funders or readers of published results may raise questions answerable only by reference to the primary data, except in the case where there is a bona fide requirement for confidentiality.
- 2.5 Entitlement to ownership, reproduction and publication of primary data, software and other products of research will vary according to the grants, contracts or other arrangements under which research is conducted. A common understanding of ownership should be reached among collaborators, supervisors, students and Sask Polytech before the research is undertaken.
- 2.6 Issues of confidentiality that may arise must be appropriately addressed by the school, division, department or research unit involved.
- 2.7 Subject to any limitations imposed by the terms of grants, contracts or other arrangements for the conduct of research, the principal investigator and all co-investigators must have free access to all original data and products of the research at all times.
- 2.8 When a principal investigator leaves Sask Polytech, the associated funding for any project they have underway will remain with Sask Polytech and the investigator will provide needed data/information to their supervisor and the supervisor will make arrangements for the safekeeping of the records, data and products of the research. For students and employees, the data will remain Sask Polytech property unless other arrangements have been stipulated in the contract.

3. Research integrity in authorship

- 3.1 In order to ensure the publication of accurate scholarly reports, two requirements must be met:(a) The active participation of each author in verifying and taking responsibility of the part of the manuscript that they have contributed; and
 - (b) The designation of one author who is responsible for the validity of the entire manuscript.
- 3.2 The principal criterion for authorship should be that the author(s) has/have made a significant intellectual and practical contribution.
- 3.3 All authors must consent to their names appearing on the publication.
- 3.4 As a guideline, co-authorship should be recognized only where the individuals have participated in a significant way in at least two of the following aspects of the applied research or scholarship:
 - conception of idea and design or experiment;
 - actual execution of experiment or hands-on lab work;
 - analysis and interpretation of data; and/or
 - actual writing of the manuscript. (CAGS, 1999).
- 3.5 Students must be given appropriate recognition for authorship or collection of data in any publication.
- 3.6 Guidelines that may be used include:

Canadian Association for Graduate Studies: A Guide to intellectual property for graduate students and postdoctoral scholars.

4. Conflict of Interest in Research

- 4.1 It is essential to recognize situations of existing, potential or apparent conflict of interest promptly.
- 4.2 Researchers should avoid placing themselves in conflict of interest situations and, in cases where situations do arise, should report them immediately to the Associate Vice-President, Applied Research and Innovation (AVP-AR&I).
- 4.3 In the research context, situations in which a conflict of interest may arise include, but are not limited to, the following circumstances:
 - 4.3.1 When the personal or business interests of the researcher, their associates or relations compromise the independence and impartiality necessary to perform their duties.
 - 4.3.2 When, without prior agreement, use is made of Sask Polytech resources, including secretarial, office and administrative services, technical services, laboratories, assistants, premises, logo, insignia, for the personal gain or benefit of faculty or for the gain or benefit of others related to or associated with the faculty.
 - 4.3.3 When the work of students is directed with a view to benefiting the personal or business purposes of the researcher, their associates or relations, and/or where the work is to the detriment of the student's progress of scholarly academic endeavors.
 - 4.3.4 When a researcher uses confidential information that is gathered in the course of their duties for personal or business gain or for the gain of their associates or relations.
 - 4.3.5 When a researcher influences or seeks to influence a decision made by Sask Polytech or an outside agency for personal or business benefit.
 - 4.3.6 When a researcher accepts, without written authorization of Sask Polytech, a research grant or contract from any outside non- Sask Polytech organization from which they receive or may subsequently receive direct or indirect benefits as an executive officer or shareholder.
 - 4.3.7 When a researcher employs students in any commercial venture related to the student's study or proceeds to commercialize the student's work in such a way as to restrict the student's ability to complete their academic program or their ability to communicate their findings.
 - 4.4 Breaches of Research Integrity (as drawn from the Tri-Agency Framework: Responsible Conduct of Research¹) include, but are not limited to:
 - 4.4.1 Fabrication: making up data, source material, methodologies or findings, including graphs and images.
 - 4.4.2 Falsification: manipulating, changing, or omitting data, source material, methodologies or findings, including graphs and images, without acknowledgement and which results in inaccurate findings or conclusions.

¹ [1] Tri-Agency Framework: Responsible Conduct of Research <u>www.rcr.ethics.gc.ca/eng/policy-politique/framework-cadre/</u>

- 4.4.3 Destruction of research records: the destruction of one's own or another's research data or records to specifically avoid the detection of wrongdoing or in contravention of the applicable funding agreement, institutional policy and/or laws, regulations and professional or disciplinary standards.
- 4.4.4 Plagiarism: presenting and using another's published or unpublished work, including theories, concepts, data, source material, methodologies or findings, including graphs and images, as one's own, without appropriate referencing and, if required, without permission.
- 4.4.5 Redundant publications: the re-publication of one's own previously published work or part thereof, or data, in the same or another language, without adequate acknowledgment of the source, or justification.
- 4.4.6 Invalid authorship: inaccurate attribution of authorship, including attribution of authorship to persons other than those who have contributed sufficiently to take responsibility for the intellectual content, or agreeing to be listed as author to a publication for which one made little or no material contribution.
- 4.4.7 Inadequate acknowledgement: failure to appropriately recognize contributions of others in a manner consistent with their respective contributions and authorship policies of relevant publications.
- 4.4.8 Mismanagement of conflict of interest: failure to appropriately manage any real, potential or perceived conflict of interest, in accordance with Sask Polytech's policy on Conflict of Interest.
- 4.4.9 Failure to comply with relevant policies, laws or regulations for the conduct of certain types of research activities, or failure to obtain appropriate approvals, permits or certifications before conducting these activities, including, but not limited to:
 - Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2);
 - Canadian Council on Animal Care guidelines and policies;
 - Canadian Environmental Assessment Act;
 - Licenses from appropriate governing bodies for research in the field;
 - Laboratory Biosafety guidelines;
 - Canadian Nuclear Safety Commission (CNSC) regulations, and Radiation Safety guidelines;
 - Controlled Goods Program;
 - Public Health Agency of Canada guidelines;
 - Canada Food Inspection Agency guidelines and Canada's Food and Drugs Act; and
 - Sask Polytech policies relevant to research and scholarly activities.
- 4.4.10 Misrepresentation in a funding application or related document: providing incomplete, inaccurate, or false information in a funding application or related document, such as a letter of support or progress report; listing of co-applicants, collaborators, or partners without their agreement; or applying for or holding an award when deemed ineligible by the funder.
- 4.4.11 Mismanagement of funds: failure to use funds for purposes consistent with the policies of the funding agency, misappropriation of funds, contravention of financial policies and agency guidelines, or inaccurate or false documentation for expenditures from grant or award accounts.

4.4.12 Breaches of the Research Integrity Policy should not be interpreted as including differences of opinion regarding research methodologies, analyses of data, and theoretical frameworks.

5. Additional examples of misconduct in scholarly research

- 5.1 Misconduct in research can take many forms. Provided are some examples. The list is not exhaustive.
 - 5.1.1 Failure to acknowledge or recognize the contribution of others, including: coresearchers, students, research assistants.
 - 5.1.2 Use of the unpublished works of others without permission.
 - 5.1.3 Use of material in violation of the Copyright Act.
 - 5.1.4 Abuse of supervisory power affecting collaborators, assistants, students and others associated with the research or any behavior contrary to the Sask Polytech harassment policy.
 - 5.1.5 Financial misconduct: failure to account for or misapplication or misuse of funds acquired for support of research, including, but not limited to:
 - failure to comply with the terms and conditions of grants and contracts;
 - use of Sask Polytech resources, facilities and equipment without approval.
 - 5.1.6 Failure to reveal any material conflict of interest to sponsors or to those who commission work or when asked to undertake reviews of grant applications or manuscripts for publication.

6. Procedures for investigation and resolution of complaints in respect of alleged breaches of research integrity policy

- 6.1 Potential Breach of Integrity
 - 6.1.1 Anyone who believes there has been a breach of the Research Integrity Policy may seek informal assistance regarding the filing of the complaint from the AVP-AR&I. The complaint and the discussions related to the complaint will be kept confidential by the AVP-AR&I and will be so classified.
 - 6.1.2 In cases where the complaint relates to conduct that occurred at another institution, the AVP-AR&I will contact the other institution and determine which institution is best placed to conduct the inquiry and investigation, if warranted.

6.2 Obligation to Report Misconduct

- 6.2.1 All faculty, researchers, students and research assistants have an obligation to report to the AVP-AR&I any circumstances which they believe involve a breach of the Applied Research Integrity Policy at Sask Polytech.
- 6.2.2 A written complaint will be filed with the Office of Applied Research and Innovation.
- 6.2.3 If complaints are received in another office (for example, program head's or dean's office) they will be channeled to the AVP-AR&I.

- 6.2.4 The AVP-AR&I will notify the Provost and Vice President, Academic that a complaint was filed and will forward a copy of the written complaint.
- 6.3 Filing a Complaint
 - 6.3.1 A formal complaint of misconduct must be made in writing, dated and signed.
 - 6.3.2 The complaint will contain sufficient details to enable the respondent to understand the matter to be investigated and should identify the person(s) who allegedly committed the misconduct and the person(s) who made the allegations if it is necessary to evaluate the complaint.
 - 6.3.3 A complaint should be filed as soon as the misconduct has been observed or becomes known.
 - 6.3.4 Anonymous allegations will not normally be considered.
 - 6.3.5 However, an anonymous allegation may be considered if accompanied by sufficient information to enable the assessment of the allegation and credibility of the facts and evidence, without the need for further information from the complainant. The AVP-AR&I and the Provost and Vice-President Academic will meet to determine whether or not sufficient grounds exist to warrant an investigation.
 - 6.3.6 Retaliation or reprisals against a person making an allegation of misconduct in good faith is prohibited. The AVP-AR&I will take steps needed to reasonably protect against retribution or coercion of complainants.
- 6.4 Preliminary Evaluation of the Complaint
 - 6.4.1 The AVP-AR&I will evaluate the complaint for its accuracy, completeness and relevance to this policy.
 - 6.4.2 The AVP-AR&I will prepare a summary of the complaint and forward it to the person who allegedly committed the misconduct between five (5) and ten (10) days after the complaint has been received.
 - 6.4.3 At the discretion of the AVP-AR&I, the identity of the complainant may be withheld.
 - 6.4.4 The AVP-AR&I will review all information related to the matter and may meet with the complainant and the person allegedly accused of misconduct in order to determine if there is enough solid ground to warrant further investigation.
 - 6.4.5 If the AVP-AR&I establish that there is not enough evidence to warrant the investigation the complaint will be dismissed and the complainant and the respondent will be notified of the decision.
 - 6.4.6 The decision will be final, unless there is more evidence brought forward indicating the misconduct.
- 6.5 Informal resolution
 - 6.5.1 If, in the opinion of the AVP-AR&I, in consultation with the Provost and Vice-President, Academic, the misconduct is of minor nature (e.g. omission of someone's contribution)

an attempt shall be made to informally find a satisfactory resolution of a formal complaint.

- 6.5.2 The complaint will be considered resolved when the respondent rectifies the problem and the complainant confirms that the problem has been resolved to his/her satisfaction.
- 6.5.3 If such an informal resolution cannot be reached or the misconduct is of serious nature (e.g. financial misconduct) a formal investigation will occur.
- 6.6 Formal Investigation
 - 6.6.1 If there is enough evidence that misconduct occurred, a formal investigation will be launched within fifteen (15) business days after the receipt of the complaint.
 - 6.6.2 The Provost and Vice-President, Academic will be notified of the formal investigation.
 - 6.6.3 If there is enough evidence that the misconduct involves a misuse of funds the Provost and Vice-President, Academic at their discretion, may instruct the AVP-AR&I accounting office to withhold funds flowing to the person who allegedly committed the misconduct pending the results of the formal investigation.
 - 6.6.4 The alleged misconduct will be investigated by an investigation committee set up by the Provost and Vice-President, Academic. The investigation committee will normally consist of the following:
 - Provost and Vice-President, Academic who will chair the investigation committee; and
 - Two other members selected by the chair of the investigation committee, who are not in conflict or perceived to be in conflict, with the subject of the allegation, and who have demonstrated relevant academic experience in research and scholarship. A person external to Sask Polytech is required to be appointed to the investigation committee.
 - 6.6.5 The chair of the investigation committee will have the authority to obtain and retain all documentation relevant to the investigation.
 - 6.6.6 The investigation committee will review all documentation relevant to the allegation including, but not limited to: abstracts, papers, any correspondence documents (including emails), and any financial data.
 - 6.6.7 The process of collecting data may include interviews, review of files, review of correspondence and obtaining any documents from relevant sources. All interviews will be documented.
 - 6.6.8 Based on the evidence collected, the chair of the investigation committee will inform the complainant and the person who allegedly committed the misconduct of a hearing that will deal with the misconduct.
 - 6.6.9 The notice will contain the date and location of the hearing, reason for the hearing, a list of attendees, and an outline of the procedures that will be followed.
 - 6.6.10 The letter shall be marked confidential and a copy will be sent to the Sask Polytech Human Resources office.
 - 6.6.11 Every effort will be made to conduct the investigation and the hearing in a thorough and fair manner.

- 6.6.12 All parties will have access to evidence and collected materials.
- 6.6.13 Both the complainant and the person who allegedly committed the misconduct shall have an opportunity to respond to the allegation, both orally and in writing.
- 6.6.14 The chair of the investigation committee will arrange for the minutes of the hearing to be taken.
- 6.6.15 Within sixty (60) business days of commencement of the investigation, the investigation committee will render a decision and submit a written report to the Provost and Vice-President, Academic with a copy to the complainant and the person who allegedly committed the misconduct.
- 6.6.16 The report will include the complaint, any written responses, any pertinent documentation and records, an outline of the process followed the structure of the investigation committee, the findings and the decision of the investigation committee.
- 6.6.17 If the complaint is deemed to be founded, the Provost and Vice-President, Academic will provide the division dean with a copy of the report and discuss sanctions.
- 6.6.18 The decision of the investigation committee is binding on the institution.

6.7 No Misconduct Found

- 6.7.1 In the case of unfounded allegations, efforts will be made by Sask Polytech to protect or restore the reputation of those unjustly accused.
- 6.7.2 Complainants who have been found to have made allegations of misconduct which are unfounded, reckless or in bad faith may be subject to sanctions.

6.8 Sanctions

- 6.8.1 Sanctions will vary with the severity of the offence and disciplinary procedures may include, but are not limited to verbal reprimand, written reprimand to the permanent personnel file, suspension without pay, or termination for Sask Polytech employees.
- 6.8.2 In the case of students, sanctions may include verbal reprimand, written reprimand to the student file, probation, suspension or expulsion.
- 6.8.3 Sanctions will be determined by the division dean in consultation with the Provost and Vice-President, Academic.

6.9 Appeal

- 6.9.1 Either party who does not agree with the decision of a preliminary investigation or formal investigation can submit a written appeal to the Provost and Vice-President, Academic within ten (10) business days of the receiving the report.
- 6.9.2 The appellant and the Provost and Vice-President, Academic will review the case.
- 6.9.3 The decision of the Provost and Vice-President, Academic will be final.

- 6.9.4 An employee who believes the decision was reached improperly or disagrees with sanctions can follow the collective agreement process, or, in the case of students, can file an appeal through Policy 1210 Academic Appeals.
- 6.10 Reporting
 - 6.10.1 Within ten (10) business days after the conclusion of the investigation a report will be sent to both the complainant and the person who allegedly committed the misconduct.
 - 6.10.2 If the investigation was requested by an agency (e.g. NSERC, CIHR or SSHRC), a copy of the report will be sent to that agency, whether or not it was concluded that the misconduct occurred, within thirty (30) days of the conclusion of the investigation.
 - 6.10.3 If the investigation was initiated by Sask Polytech and misconduct was found to have occurred in the research funded by the agency, Sask Polytech will provide the agency with a copy of the report, thirty (30) days of the conclusion of the investigation.
- 6.11 Reporting to Funding Agencies
 - 6.11.1 Tri-Agency Funded Research
 - 6.11.1.1 Subject to any applicable laws, including privacy laws, AVP-AR&I shall advise the relevant Tri-Agency or the Secretariat on the Responsible Conduct of Research (SRCR) immediately of any allegations related to activities funded by the agency that may involve significant financial, health and safety, or other risks.
 - 6.11.1.2 Sask Polytech may independently, or at the Agency's request in exceptional circumstances, take immediate action to protect the administration of Agency funds. Immediate actions could include freezing grant accounts, requiring a second authorized signature from an institutional representative on all expenses charged to the researcher's grant accounts, or other measures, as appropriate.
 - 6.11.1.3 If the SRCR was copied on the allegation or advised of an allegation related to activities funded by the agencies, the AVP-AR&I shall write a letter to the SRCR confirming whether or not Sask Polytech is proceeding with an investigation within two (2) months of the receipt of the allegation.
 - 6.11.1.4 The AVP-AR&I shall prepare a report for the SRCR on each investigation it conducts in response to an allegation of policy breaches related to a funding application submitted to an agency or to an activity funded by an agency. A report will be submitted to the appropriate agency within seven (7) months of the receipt of the allegation by the institution.
 - 6.11.1.5 Subject to any applicable laws, including privacy laws, each report shall include the following information: the specific allegation(s), a summary of the finding(s) and reasons for the finding(s);
 - the process and time lines followed for the inquiry and/or investigation;
 - the researcher's response to the allegation, investigation and findings, and any measures the researcher has taken to rectify the breach; and

- the Sask Polytech investigation committee's decisions and recommendations and actions taken by Sask Polytech.
- 6.11.1.6 The report should not include:
 - information that is not related specifically to agency funding and policies; or
 - personal information about the researcher, or any other person, that is not material to Sask Polytech's findings and its report to the SRCR.
- 6.11.1.7 Sask Polytech and the researcher may not enter into confidentiality agreements or other agreements related to an inquiry or investigation that prevent Sask Polytech from reporting to the agencies through the SRCR.
- 6.11.2 Other Sponsors and Funding Agencies
 - 6.11.2.1 Other sponsors or funding agencies that require similar notification will be notified in accordance with the procedures identified by the specific agency.
 - 6.11.2.2 In instances involving researchers and research collaborators associated with other institutions, the AVP-AR&I shall inform the Senior Administration of the collaborator's institution/agency of the substantiated allegation of a breach of the Research Integrity Policy.

6.12 Record Keeping

- 6.12.1 In the case that it is found that the misconduct occurred, all the documentation pertaining to the case will be kept for as long as necessary, but at least for five (5) years. The documentation related to the case will be stamped confidential and kept in the office of the AVP-AR&I.
- 6.12.2 In the case that it was found that the misconduct has not occurred, the documentation regarding the case will be kept for one (1) year after which the records will be destroyed.

7. Dissemination of the Policy on Research Integrity

- 7.1 The Sask Polytech policy on research integrity will be posted on the Sask Polytech website so that every Sask Polytech employee can consult it at any time.
- 7.2 Each new employee will be made aware of applicable Sask Polytech policies as a part of the employee orientation.
- 7.3 The Office of Applied Research and Innovation will take appropriate measures to familiarize the researchers at Sask Polytech with the policy on research integrity through professional development sessions.