

Policy Title:	Integrity in Research and Scholarship
Policy ID:	9-906
Manual Classification:	Section 9: Applied Research
Approved by Board of Governors (BoG):	March 2024
Effective Date:	March 2024
Originally Approved:	June 2008
Next Policy Review Date:	2027
Contacts for Policy Interpretation:	Executive Vice President, Applied Research

1.0 - Policy Overview

This policy establishes expectations regarding responsibility and accountability in Research and scholarship with a goal to ensuring integrity among Researchers and scholars at Fleming College (hereinafter referred to as “the College”).

This policy aligns with the guidelines set out by the Tri-Council agencies (Canadian Institutes of Health Research (CIHR); Natural Sciences and Engineering Research Council of Canada (NSERC); and the Social Sciences and Humanities Research Council of Canada (SSHRC).

2.0 – Purpose

The purpose of this policy is to promote and advance a high standard of integrity in Research and scholarship. The College is committed to maintaining high standards of Research integrity and such integrity requires careful supervision of Research including that conducted by students; competent use of methods; adherence to ethical standards; and the refusal to engage in or to condone instances of fraud or misconduct.

3.0 - Definitions and Acronyms

The following definitions and acronyms apply to this Policy and all linked Procedures:

Allegation: A declaration, statement, or assertion communicated in writing to the Office of Applied Research & Innovation (OARI) declaring that there has been, or continues to be, a breach of one or more institutional policies; the validity of which has not been established.

Applicant or Co-Applicant: An individual who has submitted an application, individually or as part of a group or team, to carry out Research or scholarly activities. The application could be to request funds from an internal or external funding agency, and/or as part of a Research contract or, to the College’s Research Ethics Board (REB).

Author or Co-Author: The writer or contributing writer of a publication or document that is submitted internally or externally for the purposes of disseminating of scholarly activities including Research findings.

Board of Governors (BoG): The authority to govern Sir Sandford Fleming College is given to the Board of Governors through the Ontario College of Applied Arts and Technology Act, 2002, Ontario Regulation 34/03, Ministry Binding Policy Directives, and further outlined in the Board of Governors Bylaw 1.

College Community: Any person who studies, teaches, conducts research at or works at, or under, the auspices of the College and includes without limitation, employees or contractors; appointees (including volunteer board members); students; visitors; and any other person while they are acting on behalf of, or at the request of the College.

Conflict of Interest: A Conflict of Interest can arise when activities or situations place a person or the College in a real, potential or perceived conflict between their duties or responsibilities and their personal, institutional or other interests. Conflict of Interest may also occur when individual or the College's judgments and actions are, or could be, affected by personal, institutional, or other interests.

Complainant: The person filing or making a policy breach allegation.

Representative: A person chosen by the Respondent or Complainant, who may be an employee or member of an employee or student group to which the Respondent or Complainant belongs.

Research: Any internally- or externally- funded initiative which the College and the academic community in general consider to be Research including:

- Finding solutions to practical problems through the application of knowledge;
- Experimental discovery;
- Activities leading to the publication of journal articles, books, monographs, and contributions to edited books;
- Unpublished Research, including work in progress;
- Consulting and contract work under the auspices of the College, and other professional activities involving research.

Researcher: Anyone who conducts or is involved with Research activities, including without limitation, academic staff, administrative or support staff, persons with adjunct appointments, visiting instructors, visiting professional associates and Research associates.

Research Ethics Board (REB): The College Research Ethics Board (REB) is an arm's length body which oversees ethical screening and conducts a full review of Research projects involving human participants. For full terms of reference refer to Policy 9-905 - Ethical Conduct of Research Involving Humans. The REB endorses, and takes as its guide, the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2)*.

Respondent: The person who has been alleged to have committed a breach of policy.

Scholarly Activities: Any internally- or externally-funded initiatives which the College and the academic community in general consider to be scholarly activities including, but not limited to:

- Preparation of papers for submission to be refereed and non-refereed journals, and those delivered at professional meetings;

- Participation in panels;
- Editorial and referring duties;

Tri-Council: Collaborative agency that is comprised of the three major funding agencies in Canada: the Canadian Institute for Health Research (CIHR), Natural Sciences and Engineering Research Council (NSERC) and, Social Sciences and Humanities Research Council (SSHRC).

4.0 - Scope

This policy applies to all College employees, whether compensated or not, including staff in the Academic and Support Staff bargaining units, sessional and part time staff, administrative staff, contractors, consultants, volunteers, students employed by the College, students conducting Research as a requirement for their academic program, and all other persons who engage in projects using the College's employees, students, facilities, and/or resources.

This policy extends to third parties who participate in collaborative Research projects and/or joint initiatives, such as industry or sector partners; however, if any part of this policy conflicts with provisions of a signed agreement between the College and a third party, the provisions of the signed agreement will prevail.

5.0 – General Principles

5.1 General Principles: All members of the college community must comply with the *Tri-Agency Framework – Responsible Conduct of Research (2016)*, which promotes research integrity through:

- a) **Rigour:** Scholarly and scientific rigour in proposing and performing Research; in recording, analyzing, and interpreting data; and in reporting and publishing data and findings.
- b) **Record Keeping:** Keeping complete and accurate records of data, methodologies and findings, including graphs and images in accordance with the applicable funding agreement, institutional policies, laws, regulations, and professional or disciplinary standards in a manner that will allow verification or replication of the work by others.
- c) **Accurate Referencing:** Referencing and where applicable obtaining permission for the use of all published and unpublished work, including theories, concepts, data, source material, methodologies, findings, survey and psychological instruments, graphs and images.
- d) **Authorship:** Including all and only those who have made a substantial contribution to and who accept responsibility for the contents of the publication or document as authors with their consent. The substantial contribution may be conceptual or material.
- e) **Acknowledgement:** Appropriately acknowledging all and only those who have contributed to Research, including funders and sponsors.

- f) **Conflict of interest management:** Appropriately identifying and addressing any real, potential or perceived Conflict of Interest, in accordance with College policy 3-344: Conflict of Interest.

5.2 Any Research at the College involving animals will be in accordance with College Policy 9-902: Animal Care and Welfare Policy and associated procedures.

5.3 Any Research at the College involving human participants will be in accordance with College Policy 9-905: Ethical Conduct of Research Involving Humans and associated procedures.

5.4 The Office of Applied Research and Innovation (OARI) will be responsible for the administration and tracking of all funded and unfunded applied research and scholarly activities.

5.5 Responsibility of Researchers

a) **Conflict of Interest:** All persons covered under the scope of this Policy, or who become involved in any way in the investigation of an allegation, shall immediately disclose any real or potential Conflict of Interest in alignment with [College Policy 3-344 Conflict of Interest and its linked Procedure](#).

b) **Quality Assurance:** Individuals are personally responsible for the intellectual and ethical quality of their work and must ensure that their scholarly activity meets College standards.

c) **Obligation to Report:** All Researchers and scholars have an obligation to report any circumstance that they believe involves a breach of this Policy and linked Procedures.

5.6 Development of Research Funding Applications or Project Plans: Promoting a culture of academic and scholarly integrity begins at the development stage of an activity. In the planning stages of a proposal or grant application researchers and scholars are required to:

- a) Obtain the written consent of their Dean/Chair and/or Manager prior to undertaking any project or program and will supply such written consent to the Office of Applied Research and Innovation (OARI);
- b) Consult with OARI before applying for external funding and/or consulting and contract work under the auspices of the College, and other professional activities involving research and scholarly activities;
- c) Comply with relevant College policies;
- d) For research involving humans, obtain Research Ethics Board (REB) approval prior to beginning any data collection;
- e) For research involving animals, obtain Animal Care Committee (ACC) approval prior to beginning any work involving animals;

- f) For research involving indigenous participants or communities, engage in a culturally appropriate and transparent consultation process before conducting any research or initiating any data collection;
- g) Ensure they and their team members have the appropriate licensing, training and expertise for their role in the project;
- h) Develop a methodology that is scientifically rigorous and is likely to yield valid, reliable results;
- i) Have a knowledge dissemination plan to ensure findings, whether positive or negative, are shared with relevant professionals, colleagues, decision makers and other stakeholders in the field;
- j) Principal Applicants or Investigators must ensure that all individuals listed on a research project have agreed to be included;
- k) Provide complete and accurate information in a grant or award application, or related document, such as a letter of support;
- l) Provide OARI with a copy of the research proposal and budget for review and approval prior to submission;
- m) During and upon completion of the project, provide OARI with progress and final reporting as requested.

5.7 Data Gathering, Storage and Retention: Research and scholarly activities require using scholarly and scientific rigour and integrity in obtaining, recording and analyzing data, and in reporting and publishing results. The management of accurately recorded and retrievable results is essential to any research project. According to the college's policy on IT Security, data users are responsible for:

- Taking appropriate measure to prevent loss, damage, abuse, or unauthorized access to information assets under their control;
- Respecting the classification of information as established by College "Data Stewards";
- Complying with all the policy requirements defined in the security privacy and data governance policies and supporting procedures, rules and guidelines;
- Technology asset(s) assigned to them (they must be able to determine the function and location of technology assets under their custodianship and must ensure that assets transferred from the custodianship are clearly assigned to the next custodian).

The following criteria apply for research data collected:

- Members of the college community must keep secure, complete and accurate records of data, methodologies and findings, including graphs and images, in accordance with the applicable funding agreement, institutional policies and/or laws, regulations, and professional or disciplinary standards in a manner that will allow verification or replication of the work by others;
- Data must not be used for anything other than what was approved by the original granting agency, sponsor and/or the REB;

- If a member of the team who is collecting data, leaves the College during the project period, the College will maintain all original data files for the remainder of the project period;
- Provision of material products, such as software prepared during research, substances, or equipment to third parties for non-commercial research purposes within or outside the research units requires the approval of the Principal Investigator and OARI;
- If data contains identifiable information, it must be collected, stored and destroyed in compliance with FIPPA (Freedom of Information and Protection of Privacy Act) or PHIPA, as required for personal medical information (Personal Health Information and Protection Act) as well as any other privacy legislation that may be applicable dependent on the jurisdiction, and confidential storage. The duration of the storage will be from completion of the publication of the results plus seven years;
- Members of the college community are responsible for ensuring secure and confidential storage. In accordance with the College's Record of Retention schedule, the duration of the storage will be from completion of the publication of the results (completion) plus seven years.

5.8 Authorship

- Attribution:** The attribution of authorship in all research and scholarly publications must accurately reflect the intellectual contributions of all members of the team.
- Co-Authors:** The co-authors of a publication are all those who have made significant intellectual contributions to the results. An administrative relationship to the investigation does not, by itself, qualify a person for co-authorship. Authorship decisions should not be affected by whether participants were paid for their contributions, or by their employment status. The author who submits a manuscript or report for publication is responsible for including all appropriate co-authors, for sending each co-author a draft copy of the manuscript for comment, and for obtaining consent on co-authorship, including the order of names.
- Acknowledgement:** Purely formal association with a research project, such as the directorship of a laboratory or an administrative position in a department, does not constitute authorship, but may be recognized in an acknowledgement. General supervision of a group, technical help, data collection, or critical reviews of manuscripts or reports prior to publication are not sufficient for authorship, but may be acknowledged in a separate paragraph. There will be no honorary co-authorship; authorship must be based entirely on significant intellectual, professional or immediate supervisory contribution. Other contributions should be indicated in a footnote or in an acknowledgements section.
- Students:** A student should be granted due prominence on the list of co-authors for any multiple-authored article or report that is based primarily on the student's own work, according to the commonly accepted practice in the field recognizing the substantive contributions of co-investigators be they academic staff collaborators, external partners and/or students; done with permission and with due acknowledgement.
- Unpublished Works:** Using unpublished work of other researchers and scholars may only be done with permission and with due acknowledgment.

- f) **Archival Material:** Archival material must be used in accordance with the rules of the archival source.

5.9 Research Equipment and Facilities

- a) **Equipment Purchased Through Grants:** All research equipment purchased through research grants, including but not limited to Tri-Agencies, the Canadian Foundation for Innovation and the Ontario Centres of Innovation, will be managed centrally through OARI. Through OARI, the College will assume and retain ownership of the equipment, unless:
- The funding agency agrees otherwise in writing;
 - Doing so would be contrary to a legislated requirement;
 - Ownership is to be transferred to another institution, in which case the institution shall obtain a written undertaking from the other institution agreeing to abide by the terms under which the funds for equipment were granted;
 - The equipment is sold, in which case the Institution shall make reasonable efforts to use any funds obtained from the sale of the equipment for research-related purposes.
- b) **Equipment Lifetime:** OARI may house and maintain and, if appropriate, insure the equipment, and take reasonable measure to protect it during its useful life.
- c) **Database:** OARI will maintain a central database of research equipment through the College's "ebase" system and allow other researchers to make use of the equipment to the extent it is reasonably possible and appropriate for the equipment.

5.10 Publishing and Knowledge Dissemination

- a) **Knowledge Dissemination:** It is expected that knowledge generated at the College will be disseminated. In terms of research, this includes results that do not support the investigators' other research and/or does not support the original hypothesis. Plans should be defined before data collection begins and should be adhered to, to the greatest extent possible. Should investigators not be able to adhere to the original plan, significant modifications must be approved by OARI.
- b) **Permissions:** Researchers and scholars must obtain permission of an author before using new information, concepts or data originally obtained through access to confidential manuscripts or applications for funds for research or training that may have been obtained as a result of processes such as peer review.
- c) **Conflict of Interest:** All team members are required to reveal to sponsors, academic institutions, journals or funding agencies, any material conflict of interest, financial or other, that might influence their decisions on whether the individual should be asked to review manuscripts or applications, test products or be permitted to undertake work sponsored from outside sources.

5.11 Conflict Over Authorship:

There may be cases where there is disagreement between authors and/or team members regarding a publication. Conflict over authorship could occur if any of the following situations arises:

- Authors disagree on the interpretation of the results; and/or;

- A team member believes they have made a contribution deserving of co-authorship, but the Principal Applicant is not including them in the publication; and/or;
- Co-authors disagree on the order of the author list in a submitted publication.

In the event of a disagreement that does not involve a breach of any College policies, other relevant internal policies or relevant external policies (e.g. of the funding agency and/or research sponsor), the Director of Applied Research & Innovation will initiate mediation. If unsuccessful, the final decision will be that of the Executive Vice President, Applied Research. A co-author, if not satisfied with the decision, will have the right to file a policy breach, which is referred to a Policy Breach Investigation Committee.

5.12 Compliance to External Regulation

- a) If a project is funded by one of the Tri-Agency institutions, researchers from the college community including employees and students are required to ensure they are up-to-date with the *Tri-Agency Framework: Responsible Conduct of Research* guidelines in order to comply with them.
- b) As appropriate for the project, members of the college community must also be in compliance with relevant external regulations and legislation, included but not limited to:
 - Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2018)
 - Tri-Agency Framework – Responsible Conduct of Research (2016)
 - The *Personal Information Protection and Electronic Documents Act* (PIPEDA)
 - The Canadian Council on Animal Care Guidelines and Policies
 - Government of Canada's Policy and guidance on Impact Assessment
 - Government of Canada's Biosafety standards and guidelines

Note that the above lists of Researcher responsibilities may not be exhaustive and amendments or additions may be made at any time to address unforeseen changes in circumstances or emerging concerns.

5.13 Policy Breaches

- a) **Scope of Dishonest Behaviors and Consequences:** Actions that violate or are inconsistent with the principles outlined in this policy and its aligned procedure will be considered breaches of policy and will result in sanctions ranging from warning or reprimand to expulsion or dismissal, as appropriate to the circumstances. This policy acknowledges that the list of potential breaches provided is not exhaustive, and amendments or additions may be made at any time to address unforeseen circumstances or emerging concerns. Breaches may include, but are not limited to, any or all of the following dishonest behaviours:
- b) **Destruction of Research Records:** The destruction of one's own or another's research data or records with the purpose of avoiding detection of wrongdoing or in contravention of the applicable funding agreement, institutional policy and/or laws, regulations and professional or disciplinary standards.
- c) **Falsifying or Fabricating Data:** includes making up data, source materials, methodologies or findings (including graphs and images); or manipulating, changing, or omitting data, source material, methodologies or findings, including graphs, and images, without acknowledgement and which results in inaccurate findings or conclusions.

- d) **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/or without permission, if required i.e. copying large body of copyrighted material without acknowledging the author and the source.
- e) **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.
- f) **Misrepresentation:** Willfully misrepresenting and/or misinterpreting (for any reason) findings resulting from the conduct of research and scholarly activities.
- g) **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.
- h) **Inadequate Acknowledgement:** Failure to appropriately recognize contributions of others in a manner consistent with their respective contributions and authorship policies of relevant publications. e.g., student or co-worker contribution of an idea that leads to a concrete improvement of results, time spent collecting and analyzing data or written contributions to articles/papers, failure to honour the confidentiality that the researcher promised or was contracted to as a way to gain valuable information from a party internal or external to the College.
- i) **Breach of Contract:** Failure to adhere to terms and conditions of contracts with a third party that is sponsoring the research (in most cases external to the College).
- j) **Omission of Information Regarding Ethic or Compliance Concerns:** Failure to report to OARI an involvement in research involving human participants, bio-hazardous materials or animals, and to obtain approvals as necessary.
- k) **Failure to Disclose Conflict of Interest:** Failure to disclose, appropriately manage any real, potential or perceived conflict of interest.
- l) **Non-Adherence to Government Regulations Safeguarding Human Participants:** Failure to comply with relevant provincial or federal regulations for the protection of human participants.
- m) **Omission of Research Grant Documentation:** Failure to provide copies of research grants to OARI.
- n) **Students:** Students that are alleged to have committed a policy breach in academic research solely in their capacity as students and in respect only to work related to the completion of course or program requirements, will be governed by the College and Faculty's procedures for dealing with academic misconduct.
- o) **Exclusions:** The following will not normally be considered breaches of policy:
 - Honest errors or mistakes;

- Differences in opinion or different interpretations of scientific discoveries.

5.14 Communication Protocol for Policy Breach Disclosure: Information concerning a policy breach will be communicated to applicable stakeholders of the research project or scholarly activity, including but not limited to, sponsoring agencies or industry partners, partnering academic institutions, local, provincial or federal grant agencies, peer-reviewed journals or other publications if the research has been published, in accordance with their requirements.

5.15 Institutional Responsibilities: The College recognizes that promoting a culture of research and scholarship integrity requires a commitment from the institution. As such, the College commits to providing access to policies in a variety of ways:

- Promoting ethics and integrity issues through the distribution of policies and organization of learning opportunities for members of the College;
- Creating and maintaining processes through which breaches of responsible research and scholarship conduct may be reported/investigated;
- Investigating allegations of scholarly misconduct in a timely and impartial manner;
- Creating and maintaining processes for breaches to be reported and corrected, and for offenders to be disciplined.

a) Initiatives for Cultivating Responsible Research and Scholarship: To foster responsible research and scholarship conduct the College will undertake initiatives such as: the promotion of standards and examination of issues through dissemination of this policy and other relevant written material; organizing learning opportunities on the topic and; recognizing staff and students who uphold and encourage the standards set forth in this policy.

b) Investigating Policy Breach Allegations: Allegations of a policy breach may arise from anonymous or identified sources within or outside the institution. As per the accompanying Procedure ##### Integrity in Research & Scholarship, individuals are expected to report, confidentially in good faith, and in a timely fashion any information pertaining to possible breaches.

c) Fair Investigation Procedures: Allegations may be well founded, honestly erroneous or mischievous. Whatever their source, motivation or accuracy, such allegations have the potential to cause great harm to the persons accused, to the accuser, to the institution, and to research and scholarship in general. Therefore, the College will take prompt action and treat allegations seriously and in a manner that is impartial and accountable to the members of its community and the broader academic community. Investigations into breaches will be guided by the principle of fairness and applicable to all parties. The Respondent and Complainant will have adequate opportunity to know any evidence presented by any party and to respond to that evidence, if they choose.

d) Accountability and Reporting of Confirmed Policy Breaches

- Once a policy breach has been investigated and refuted or confirmed, the investigation committee will prepare a report and actions will be determined.
- The College will take the necessary measures to ensure the protection of Agency or sponsor funding, where evidence supports that a policy breach occurred. This may include temporary suspension of the project, and restricted access to funding, until the matter has been resolved.

- When research involves humans, researchers and scholars are required to comply with *the Tri-Council Policy Statement Section 2.1*, which establishes principles to guide the design, ethical conduct and ethics review process of research involving humans.

e) Recourse

- If the person sanctioned by a decision believes the decision was reached improperly or disagrees with that decision, an appeal or grievance, as appropriate, may be filed, according to the terms of the appeal or grievance mechanism applicable to that person.
- Upon completion of appeal proceedings, the decision rendered will be final and binding on all parties.

- f) Record Keeping:** All documents involved in the investigation will be kept in a confidential file in the office of the Executive Vice President, Applied Research, for a minimum of seven years following the finding of policy breach or dismissal of the allegation. All information and records relating to an action taken under this policy will be handled by the College in compliance with provincial and federal privacy legislation.

6.0 - Related Documents

- Canadian Institutes of Health Research (CIHR); Natural Sciences and Engineering Research Council of Canada (NSERC), Social Sciences and Humanities Research Council of Canada (SSHRC): *Tri-Agency Framework: Responsible Conduct of Research Guideline, 2016*
- *Ontario College of Applied Arts and Technology Act, 2002*, Ontario Regulation 34/03, Ministry Binding Policy Directives,
- Policy 9-905: Ethical Conduct for Research Involving Humans and associated College Operating Procedure(s)
- Policy 9-902: Animal Care and Welfare and associated College Operating Procedure(s)
- Policy 3-344: Conflict of Interest Policy and associated College Operating Procedure(s)
- Policy 9-903: Intellectual Property and associated College Operating Procedure(s)
- Policy 4-411: Procurement Policy and associated College Operating Procedure(s)

7.0 History of Amendments/Reviews

Date	Actions
2008	Originally approved; replaced Policy 2-214 and associated procedures
2024	Reviewed and Updated, Procedure separated from Policy