

## Policy on Research Integrity

### INTRODUCTION

Conestoga College Institute of Technology and Advanced Learning (herein referred to as Conestoga) is committed to provide a polytechnic environment conducive to the pursuit of applied research and scholarly activity for its faculty, staff and students. This policy has been developed in accordance with the *Tri-Agency Framework: Responsible Conduct of Research* to set the principles that define integrity in research; to promote education on, and awareness of, the importance of the responsible conduct of research; and to establish procedures to investigate allegations of research misconduct.

Research integrity requires careful supervision of research, including research conducted by students; competent use of methods; adherence to ethical standards of discipline; and the refusal to engage in or to condone instances of fraud or misconduct.

The Executive Dean Academic Administration (*or designate assigned by the President*) shall serve as the central point of contact and will receive all confidential enquiries, allegations of breaches of policies, and information related to allegations of research misconduct.

### SCOPE

This policy applies to all research conducted under the auspices or jurisdiction of Conestoga. Conestoga personnel and students involved in research shall comply with all procedures as set out in this policy. The policy applies to research projects led by Conestoga, as well as those led by other institutions in which Conestoga faculty, staff or students are participants.

Conestoga requires that all researchers applying for and/or holding funding from the Tri-Agencies are responsible for conducting their research and administering their funds according to the policies set out in the *Tri-Agency Framework: Responsible Conduct of Research*. The Tri-Agencies refer to Canada's three federal research granting Agencies – the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC), and the Social Sciences and Humanities Research Council (SSHRC).

## DEFINITIONS

The following definitions as set out directly in the *Tri-Agency Framework: Responsible Conduct of Research*, 2<sup>nd</sup> Edition apply to this policy:

- a. *Allegation*: A declaration, statement, or assertion communicated in writing to an Institution or Agency to the effect that there has been, or continues to be, a breach of one or more Agency policies, the validity of which has not been established.
- b. *Complainant*: An individual or representative from an organization who has notified an Institution or Agency of a potential breach of an Agency policy.
- c. *Respondent*: An individual who is identified in an allegation as having possibly breached Agency and/or institutional policy.
- d. *Responsible Allegation*: A substantially novel allegation made in good faith, confidentially and without malice, that is based on facts which have not been the subject of a previous allegation and which falls within one or more breaches set out in the Tri-Council Framework.
- e. *Research*: An undertaking intended to extend knowledge through a disciplined inquiry or systematic investigation.
- f. *Researcher*: Anyone who conducts research activities.

Additional definitions:

- a. *Applied Research*: Most of the research conducted by Conestoga faculty, staff and/or students is Applied Research, which includes any original investigation undertaken to acquire new knowledge or to apply existing knowledge in a novel way, directed primarily towards a specific practical aim or objective. Ideas are developed into operational form to produce new prototype products, devices, processes, systems, and services or to improve substantially those already produced or installed.
- b. *Applied Research Project(s)* shall include any project involving an external company, internal or external funding, and/or Conestoga facilities to conduct and complete the research. These can include student capstone (or final year) projects, class or curriculum based projects, or independent projects (projects undertaken outside of normal curriculum and capstone activities).
- c. *Institutional research* is a special classification of research that involves the survey and data analysis of information that is focused on program quality improvement and evaluation.
- d. A *partner* refers to the external company, institution, research hospital, agency or organization that is engaged in a research project with Conestoga. The partner may be providing full, partial, or no funding towards the research project. In most situations, there is normally a contractual agreement between Conestoga and the partner to stipulate the roles and responsibilities of the participants.
- e. The phrase *Conestoga personnel* refers to all faculty and staff whether employed full-time, part-time, or on contract basis. The phrase *Conestoga students* refers to all

students working with or without monetary compensation on any project under the direction and control of Conestoga.

- f. *Consulting Service* activities are similar to the activities within an applied research project but are not normally viewed by Conestoga as applied research. There are two types of consulting services for research purposes; “*internal*”, using Conestoga resources, and “*external*”, not using Conestoga resources. For both types, Conestoga personnel wanting to engage in consulting services with a company require prior written approval from Conestoga; consulting services may not conflict with the employee’s responsibilities to Conestoga, constitute economic competition with Conestoga, or negatively impact the reputation of Conestoga.
  - i. External consulting service activities are the sole responsibility of the individual. The individual cannot use Conestoga resources and does not represent Conestoga for the consulting service provided. Legal agreements between the individual, the company, or any other third-party are signed without the involvement, endorsement or warrantee of Conestoga. External consulting service activities by faculty members may be potentially viewed as scholarly activities.
  - ii. Internal consulting service activities require review and approval by Conestoga prior to engagement. When an internal consulting service activity requires the use of Conestoga resources, the activity needs to be reviewed to ensure that it does not interfere with Conestoga’s academic processes and legal obligations (i.e. software license agreements, use of donated hardware, etc.). Upon approval, the individual is responsible for conducting the activities in adherence to Conestoga policies and procedures. Legal agreements between the individual, the company, and Conestoga may need to be entered into and are at the discretion of Conestoga. Internal consulting service activities by faculty members, with prior approval of the Chair, may be viewed as scholarly activities.
  - iii. If an internal consulting service requires both Conestoga resources and the participation of Conestoga students, then it will be classified as an applied research project.
  - iv. Neither Conestoga nor research personnel may enter into any confidentiality agreements that prevent Conestoga from reporting to the Agencies.

## EXCLUSIONS

There are no exceptions with regards to research integrity. This policy covers all Conestoga faculty and staff members, Conestoga students, and anyone else engaged in research or consulting services under the auspices of Conestoga.

## BREACHES OF RESPONSIBLE CONDUCT OF RESEARCH

Factors intrinsic to the process of research and scholarly activities, such as honest error, conflicting data, or differences in interpretation or assessment of data or of experimental design do not constitute research misconduct or lack of integrity.

Misconduct in research may include, but is not limited to, one or more of the following breaches of Responsible Conduct of Research as set out directly in the *Tri-Agency Framework: Responsible Conduct of Research*, 2<sup>nd</sup> Edition:

1. *Fabrication*: Making up data, source material, methodologies or findings, including graphs and images.
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.
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. *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.
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.
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.
7. *Inadequate acknowledgement*: Failure to appropriately recognize contributions of others in a manner consistent with their respective contributions and authorship policies of relevant publications.
8. *Mismanagement of Conflict of Interest*: Failure to appropriately manage any real, potential or perceived conflict of interest, in accordance with the Institution's policy on conflict of interest in research, preventing one or more of the objectives of the *Tri-Agency Framework: Responsible Conduct of Research* from being met.
9. *Misrepresentation* is defined as, but not limited to:
  - a. Providing incomplete, inaccurate or false information in a grant or award application or related document, such as a letter of support or a progress report;
  - b. Applying for and/or holding an Agency award when deemed ineligible by NSERC, SSHRC, CIHR or any other research or research funding organization world-wide

for reasons of breach of responsible conduct of research policies such as ethics, integrity or financial management policies;

- c. Listing of co-applicants, collaborators or partners without their agreement.
10. *Mismanagement of research funds* is defined as, but not limited to:
- a. Using Agency grant or award funds for purposes inconsistent with the policies of the Agencies; misappropriating grants and award funds; contravening Agency financial policies, namely the Tri-Agency Financial Administration Guide, Agency grants and awards guides; or providing incomplete, inaccurate or false information on documentation for expenditures from grant or award accounts;
  - b. Failure to meet Agency policy requirements or, to comply with relevant policies, laws or regulations, for the conduct of certain types of research activities;
  - c. Failure to obtain appropriate approvals, permits or certifications before conducting these activities;
  - d. Failure to disclose a financial or personal interest in any transaction chargeable to a research grant or contract;
  - e. Failure to follow Conestoga financial directives and practices.
  - f. Failure to inform Conestoga of a substantial change in research activities or use of research funds.
  - g. Use of research resources, facilities or equipment in a manner that is inconsistent with approved research practices.
11. Material failure to comply with relevant federal and provincial statutes or regulations or other agency and Conestoga policies for the protection of researchers, human participants, or the health and safety of the public, or for the welfare of laboratory animals.
12. Material failure to meet other relevant legal requirements that relate to the conduct of research, or, for grant holders, material failure to comply with regulations of the relevant agency or agencies concerning the conduct of research.
13. The release of confidential information into the public domain without written permission from the associated partner or holder of the confidential information.

## 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. A conflict of interest may arise when activities or situations place an individual in a real, potential or perceived conflict between the duties or responsibilities related to research, and personal, institutional or other interests. These interests include, but are not limited to, business, commercial or financial interests pertaining to the individual, their family members, friends, or their former, current or prospective professional associates.

## **DATA COLLECTION GATHERING AND RETENTION STANDARDS FOR RESEARCH RECORDS**

The retention of accurately recorded and retrievable results is of the utmost importance for the progress of inquiry.

Research records include, but are not limited to, grant or contract applications, whether funded or unfunded; grant or contract progress and other reports; laboratory notebooks; notes; correspondence; videos; photographs; slides, biological materials; computer files and printouts; manuscripts and publications; equipment use logs; laboratory procurement records; human and animal research protocols; consent forms; medical charts; and client research files.

Original primary research data should be recorded, when possible, in bound books with numbered pages or on appropriately protected electronic media. In no instance should primary data be destroyed while investigators, colleagues or readers of published results may raise questions answerable only by reference to the data except in the case where there is a bona fide requirement for confidentiality.

Research Records will be preserved in a suitable format for a period of at least seven (7) years from the end of the research project, or in accordance with the REB approved research protocol. The end of the research project is defined as the date that the final report is submitted to Conestoga's Applied Research and Innovation office (CARI).

Research records will be stored in a manner to safeguard confidentiality required by Conestoga policies, ethics policies, and relevant privacy legislation. Where Research Records are owned by a third party, the records will be transferred to the third party at the end of the research project.

Subject to any limitations imposed by the terms of grants, contracts, or other agreements 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. With the knowledge and authorization of the Principal Investigator, a member of the research team may make copies of the primary data for his or her own use as long as confidentiality requirements are met.

When a Principal Investigator (Conestoga personnel or student) leaves Conestoga, arrangements for the safekeeping of records, data, and products of research must be made in accordance with any contractual arrangements with partners, funding Agencies or Conestoga. In the case of students, the data normally stays with Conestoga.

Entitlement to ownership of original data and the products of research will be clearly identified in a research agreement entered into by all researchers and Conestoga. The research agreement will be in accord with Conestoga's policy on Intellectual Property and subject to approval by Conestoga's Research Ethics Board (REB).

## **RESPONSIBILITIES OF RESEARCHERS, PRINCIPLE INVESTIGATORS, AND SUPERVISORS**

Individuals are responsible for the intellectual and ethical quality of their research. Appropriate behaviour for research includes ensuring the honesty of researchers, respect of others, scholarly competence, and stewardship of resources.

The Principal Investigator has responsibility for a research project, funded or unfunded, and for supervision of all aspects of the project. The Principal Investigator is responsible for ensuring that others listed on an application for external funding have agreed to be included.

Researchers, students, research assistants and staff have an obligation to report to the Executive Dean Academic Administration any circumstances which they believe involve a breach of the Research Integrity Policy.

Authorship of published works will include all those who have materially contributed (other than financially), and share responsibility for, the contents of the publication.

## **RESPONSIBILITIES OF CONESTOGA COLLEGE**

The College, through Conestoga's Applied Research and Innovation (CARI) office, will promote the understanding of research ethics and integrity issues and the distribution of research policies.

- CARI makes information about its research policies available in a variety of ways, including by posting such policies on its website and making such policies available through the CARI office.
- CARI organizes and deliver seminars and workshops for members of the Conestoga community.

The Executive Dean Academic Administration will respond to allegations of research misconduct in a timely, impartial and accountable manner and take appropriate action. Anonymous allegations will not normally be considered, unless compelling evidence is received anonymously by the Executive Dean Academic Administration warranting an inquiry or investigation. The privacy of the Complainant(s) and Respondent(s) will be protected as far as is possible.

Allegations must be submitted to the Executive Dean Academic Administration in writing. The Executive Dean may request a meeting with the Complainant to review the circumstances believed to be a breach of this policy. In cases where the allegation relates to a researcher holding or applying for Tri-Agency funding, the Executive Dean will advise the Complainant to

provide a written copy of the allegation to the Secretariat for Responsible Conduct of Research (SRCR).

The researcher (Respondent) has the right to know the allegations against him/her and has the right to answer the allegations both orally and in writing to the Executive Dean Academic Administration.

The Executive Dean Academic Administration will notify the Chair of Conestoga's Research Ethics Board (REB) immediately of any complaint related to research that was approved by the REB, and provide the REB with the details required or requested by the REB necessary to assess the ongoing status of the research project.

The Executive Dean Academic Administration will advise the SRCR immediately of any allegations related to activities funded by the Agency that may involve significant financial, health and safety, or other risks, subject to any applicable laws, including privacy laws.

Conestoga will protect, to the extent possible, the individual making an allegation in good faith or providing information relating to an allegation from reprisals in a manner consistent with relevant legislation.

All members of the Conestoga community will comply with the Executive Dean's request to appear before a committee of inquiry or investigation and answer its questions or supply materials to it.

The Executive Dean has the authority to obtain and retain relevant Research Records or other documentation related to an investigation that may be reasonably expected to provide evidence or information regarding the allegation.

Upon receiving an allegation of misconduct, if deemed necessary and with approval from the Vice President, Corporate Services, the Executive Dean Academic Administration may take immediate action to protect the administration of Tri-Agency funds.



## RESPONSE TO AN ALLEGATION OF RESEARCH MISCONDUCT

Allegations of research misconduct will involve the following procedures.

### Inquiry

The Executive Dean Academic Administration will respond to allegations with an inquiry to determine whether an allegation is responsible, the particular policy or policies that may have been breached, and whether an investigation is warranted based on the information provided in the allegation.

The Executive Dean will inform the Respondent of the allegation, and provide notice in writing to the SRCR that an allegation has been received and an inquiry initiated.

During an inquiry the Executive Dean may do any or all of the following:

- a. Provide the Complainant and Respondent the opportunity to be heard. During any meeting with the Respondent, the Respondent is entitled to be accompanied by a representative of the Respondent's choosing;
- b. Request that the relevant unit of Conestoga review the matter or some aspect of the matter;
- c. Request additional information regarding the allegation.

Following the inquiry process, the Executive Dean will consult with the Vice President, Corporate Services. If the inquiry indicates that the complaint is without foundation, the Complainant and the Respondent will be advised in writing that the complaint is dismissed.

The Complainant may choose to make a written request for further investigation to the Executive Dean within ten (10) working days of being informed of the decision to dismiss the complaint. The Complainant must identify the grounds for further investigation: new information not reasonably available at the time of the complaint or a significant procedural error.

If the Executive Dean in consultation with the Vice President, Corporate Services determines that the matter requires further investigation, the Complainant, the Respondent and the Secretariat will be advised in writing that the matter is to be referred to a Responsible Conduct in Research (RCR) Investigative Committee.

If an allegation is determined to be unfounded, every effort will be made by Conestoga to protect or restore the reputation of those wrongly subjected to the allegation, including written notification of the decision to all agencies, publishers, or individuals who were informed by Conestoga of the investigation.

### **Investigation**

The purpose of the investigation is to ascertain whether research misconduct has occurred, and if so, its extent and seriousness. Conestoga will appoint a three-person Responsible Conduct in Research (RCR) Investigative Committee consisting of two internal members - a senior management representative and a faculty member of Conestoga who have the necessary expertise and who are free from conflict of interest – and an external representative from an Ontario college or university, who has the necessary expertise and who is free from conflict of interest. The panel may make use of expert resources as required. No member of the department or school involved shall be among the three persons appointed to the Investigative Committee.

It is the responsibility of each appointed member to indicate if they have any perceived conflict of interest with the research project or investigation. Committee members shall not have had any prior connection with the particular matter nor have a close professional or personal relationship with the Respondent. The RCR Investigative Committee shall be appointed within 30 days from the date the allegation is received in writing by the Executive Dean Academic Administration.

The Respondent has the right to know the allegations under investigation and to respond fully. If the Respondent admits the breach, the Executive Dean may choose to forego establishing an Investigative Committee.

The Investigative Committee is to determine whether, on a balance of probabilities, the Respondent committed an act of research misconduct. The Investigative Committee may conduct any of the following activities in connection with its investigation:

- a. Review any research or other scholarly activity relevant to the allegation, including Conestoga documents, papers or other methods of scholarly communication.
- b. Conduct interviews with the Complainant, Respondent and other individuals as it deems appropriate. All interviews will be documented and included in the Report of the Investigative Committee. During any meeting with the Respondent, the Respondent is entitled to be accompanied by a representative of the Respondent's choosing.
- c. Seek impartial expert opinions.
- d. Request a special audit of accounts on the sponsored research accounts of the individuals involved.
- e. Request proof of credentials from any individuals.

**Investigative Committee Report and Timelines**

The Investigative Committee shall submit a written report to the Executive Dean. The investigation will normally be completed within 90 days of the date the allegation was received by the Executive Dean Academic Administration in writing.

The Executive Dean Academic Administration will provide the Respondent a copy of the RCR Investigative Committee's report within five (5) working days of receipt of the report.

The Respondent will have ten (10) business days to submit a written response if s/he chooses to do so. After the expiry of the ten (10) working days, the Investigative Committee shall decide by majority vote on the basis of the evidence submitted to it whether misconduct has occurred.

The decision of the Investigative Committee will normally be completed within 120 days of the date the allegation was received by the Executive Dean Academic Administration in writing.

The decision of the Investigative Committee is final and binding. Any finding of misconduct in research shall be based only on clear, compelling, written, and documented evidence.

The Investigative Committee's final report will include the following information:

- a. The specific allegation(s);
- b. The process and time lines followed for the investigation;
- c. A summary of the findings with the reasons for the findings;
- d. Any written response(s) from the Respondent regarding the allegations, investigation and findings and any actions taken to rectify the breach;
- e. Actions taken by Conestoga;
- f. The Committee's decision regarding whether or not misconduct was determined to have occurred and its extent and seriousness, as well as recommendations regarding rectification.

The report submitted by the Investigative Committee shall not include:

- a. Information that is not related specifically to Agency funding and policies;
- b. Personal information about the Respondent or any other person that is not material to the Committee's findings and its report.

Within five (5) working days of receipt of a report that misconduct was determined to have occurred, in the case of a student, the Executive Dean Academic Administration will refer the matter to be adjudicated under the Student Code of Conduct.

In the case of any other Conestoga personnel, the Executive Dean Academic Administration will provide a copy of the report to the Executive Director Human Resources who will make a decision as to what discipline or other action, if any, is appropriate. Normally such a decision will be made within ten (10) business days of receipt of the Investigation Committee's report.

If the investigation sustains an allegation of misconduct in research, and if that research is funded by an outside Agency or has been published or submitted for publication, the Executive Dean Academic Administration shall inform the Agency and/or publisher concerned of the outcome of the investigation and steps will be taken immediately to ensure that research funds are protected from exploitation and misuse.

A summary of the disposition of the Investigative Committee will be provided to the Complainant, with pertinent facts at Conestoga's discretion, subject to applicable laws, including privacy laws.

In cases where the source of funding is unclear, the SRCR reserves the right to request information and reports from Conestoga.

The report and records relating to the investigation will be kept by the CARI office for a period of ten years. Access to the report and records will be by application to the Executive Director Academic Administration and subject to the Freedom of Information and Protection of Privacy Act (Ontario).

## **UNFOUNDED ALLEGATIONS**

If an allegation is unfounded, every effort will be made to protect or restore the reputation of those wrongly subjected to an allegation.

Conestoga shall, where practicable, take disciplinary action against employees or students who make unfounded allegations of misconduct in research which are reckless, malicious, or not in good faith.

Whatever the outcome, Conestoga will endeavor to mitigate consequences of the process for any individuals who have been unintentionally adversely affected by it.

## **APPEAL**

The Respondent(s) or the Complainant(s) may appeal the decision of the RCR Investigative Committee in writing to the Vice President Corporate Services within five (5) working days of the receipt of the Committee's decision. The appellant must identify the grounds for the appeal: new information not reasonably available at the time of the complaint, a significant procedural error, or in the case of the Complainant(s), ongoing harm to the Complainant(s) or an organization with which the Complainant(s) is/are directly involved.

The Vice President will review the Investigative Committee's decision and will seek additional information and/or expert advice at his/her discretion. A final and binding decision will be provided by the Vice President within ten working days of the written appeal.

## **RESPONSE TO SECRETARIAT FOR RESPONSIBLE CONDUCT OF RESEARCH**

Inquiry letters and investigation reports will be submitted to the SRCR within two (2) and seven (7) months, respectively, of receipt of the allegation by Conestoga. These timelines may be extended in consultation with the SRCR if circumstances warrant, and with monthly updates provided to the Agency until the investigation is complete.

## RELATED DOCUMENTS

- Policy on Applied Research
- Policy on Conflict of Interest in Research
- Policy on Intellectual Property
- Policy on Student Rights in Research
- Policy on Research Involving Animals
- Policy on Research Involving Chemical, Biological, or Radioactive Hazards
- Policy on Research in the Yukon, Northwest Territories, or Nunavut
- Policy on Confidentiality of Information in Research
- Policy on Financial Management of Research Projects
- Policy on the Protection of the Environment within Research
- Ethical Conduct in Research Involving Humans
- Procedure for Applied Research Activities
- Procedure for Reporting Concerns within Research

## REVISION LOG

Version Number	Release Date	Notes
AR4 V3	January 8, 2014	Academic Coordinating Committee - Approved
AR4 V3	December 3, 2013	Policy and Procedure Committee - Approved
AR4 V3	December 2013	Updated references to misconduct
AR4 V2	March 2013	First release of a completely updated policy
NA	August 2007	Update to policy and procedure
NA	March 2006	Initial release of policy and procedure

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