

Policy on Research Involving Chemical, Biological, or Radioactive Hazards

Introduction

Conestoga College Institute of Technology and Advanced Learning is committed to provide a polytechnic environment conducive to the pursuit of currency, scholarship, applied research and creative activity for its faculty, staff and students. This policy governs applied research activities involving any chemical, biological, or radioactive hazards. This policy complies with the Tri-Council Policy Statement (2nd Edition).

The Executive Dean of Academic Administration (*or designate assigned by the President*) has responsibility for the interpretation and implementation of this policy.

Definitions

Applied Research 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. With respect to this policy, Conestoga includes clinical research, survey-based research, and experimental development within our definition of applied research.

An *applied research project* shall include any project involving an external company or organization, with or without funding, and/or using Conestoga resources (e.g. people, equipment, space) to conduct the project activities. Applied research projects can be further categorized as student projects (capstone or final year), curriculum based projects (i.e. project occurring within certain courses for academic marks), independent projects (i.e. projects done outside of normal academic activities with signed research agreements), or special event projects (i.e. projects undertaken outside of normal academic activities with specified focus for students and/or faculty).

Institutional Research is a special classification of research that involves the surveys and data analysis of information that is focused on program quality improvement and evaluation. Other classifications of research are experimental, basic, discovery, survey and clinical to name a few. All research at Conestoga, not classified as institutional research, will be referred to as applied research.

The word *research*, referenced by itself within this document, may refer to either institutional or applied research. And, a *research project* may refer either an institutional or applied research project.

A *partner* refers to an external business, institution, research hospital, 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.

The phrase *Conestoga staff members* refers to all staff whether employed full-time, part-time, or on contract basis (e.g. faculty, researchers, support staff, administrators). The phrase *Conestoga students* refers to all students working with or without monetary compensation on any project under the direction and control of Conestoga.

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, an individual wanting to engage in consulting services with a company requires prior written approval from Conestoga; consulting services cannot conflict with the employee's responsibilities to Conestoga, constitute economic competition with Conestoga, or negatively impact the reputation of Conestoga.

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 can potentially be viewed as scholarly activities.

Internal consulting service activities require review and approval by one of Conestoga's Academic Chairs prior to engagement. When a particular internal consulting service activity requires the use of Conestoga resources, the activity must be reviewed to ensure it does not interfere with Conestoga's academic processes and legal obligations (i.e. software license agreements, use of donated hardware, etc.) and does not unnecessarily put Conestoga in a potential liability situation. Upon approval, the individual is responsible for conducting the activities in adherence to all 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 Academic Chair, can be viewed as scholarly activities.

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 and processed accordingly.

Chemical hazards can be classified as any chemical that is flammable, explosive, corrosive, or poses a risk or potential risk to humans, animals, or the environment and therefore requires the chemical to be specially managed.

Biological hazards are infectious agents or hazardous biological materials that present a risk or potential risk to the health of humans, animals or the environment. The risk can be direct (acute or chronic health risk) through infection or indirect through damage to the environment.

Radiation is broadly defined as energy that originates from a source and travels through space or matter. *Radioactive hazards*, particularly an ionizing source, can pose a risk to the health of humans, animals or the environment if not properly controlled.

Exclusions

There are no exceptions with regards to research involving chemical, biological, or radioactive hazards. This policy covers all Conestoga staff members, Conestoga students, and anyone else engaged in research, teaching, testing, or consulting services with Conestoga.

Policy Elaboration

Principles/Guidelines

The objective of this policy is to ensure that all research activities undertaken at Conestoga shall ensure that all reasonable and expected measures are taken to protect Conestoga staff, Conestoga students, partners, and visitors against known and potential hazards. All Conestoga staff, students, partners, and visitors must adhere to all internal Conestoga policies, procedures, training and guidelines.

At this time, Conestoga **does not engage** in research, consulting services, teaching or testing involving radioactive hazards. Conestoga **only engages** in teaching involving biological hazards. Conestoga **does engage** in research, consulting services, teaching or testing involving chemical hazards.

For radioactive hazards:

- Any Conestoga staff, Conestoga student, or partner contemplating research, consulting service, teaching, or testing involving radioactive materials shall comply with all Canadian Nuclear Safety Commission (CNSC) regulations, recommended procedures, and safety precautions governing the use of such materials in Canada.

For biological hazards:

- Any Conestoga staff, student, or partner contemplating research, consulting service, teaching, or testing involving biohazards shall adhere to the standards outlined by Public Health Agency of Canada entitled "Canadian Biosafety Standards and Guidelines". In

addition, individuals shall consult with the Occupational Safety office to ensure that appropriate protection, training and guidelines are followed prior to the commencement of the project.

- If a biohazard is introduced into a project, after the commencement of the project, and was previously not expected to be used in the project, the Occupational Safety office shall be consulted to ensure that appropriate protection, training and guidelines are followed.

For chemical hazards:

- Any Conestoga staff, Conestoga student, or partner contemplating research, internal consulting service, teaching, or testing involving chemicals shall consult with the Occupational Safety office to ensure that appropriate protection, training and guidelines are followed prior to the commencement of the project.
- If a chemical is introduced into a project, after the commencement of the project, and was previously not expected to be used in the project, the Occupational Safety office shall be consulted to ensure that appropriate protection, training and guidelines are followed.

Additional Requirements

1. Conestoga requires strict adherence to the policies, procedures, and guidelines for specific hazards from related federal, provincial and municipal agencies. At the same time, all related Conestoga policies and procedures not covered by this specific policy for research must also be adhered to.
2. Any Conestoga staff, Conestoga student, or partner involved in a project using a hazard shall ensure that the laboratory procedures being used comply with the safety precautions necessary for the procurement, use, level of containment, storage, transfer and disposal of the hazard as required by the research and the specific regulatory policies, procedures and guidelines.
3. Any Conestoga staff, Conestoga student, or partner involved in a project using a hazard are responsible for ensuring that all participants and visitors are aware of any hazards (e.g. handling of chemicals) that may be encountered in the course of the research or demonstrations. All participants and visitors shall be adequately trained, and appropriate protective procedures and personal protective equipment shall be used and enforced.
4. All research projects are subject to inspection by Conestoga's Occupational Safety staff.
5. A research project can be shut-down, cancelled, or halted if the participants (partner, Conestoga staff member, or Conestoga student) fail to comply with Occupational Health and Safety regulations or fail to adhere to the policies, procedures, training, or guidelines for the specific hazard.
6. Appeals of the decision of the Executive Dean of Academic Administration (*or designate*) may be made in writing to the Research Board. Decision of the Research Board is final.

Related Documents

- Policy on Applied Research
- Policy on Conflict of Interest in Research
- Policy on Research Integrity
- 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
- Personal Protection Equipment Policy

Revision Log

Version Number	Release Date	Notes
AR7 V2	September 2014	Initial release for updated policy. Inclusion of chemical hazards.
AR7 V2	September 24 2014	Academic Coordinating Committee - Approved
AR7 V2	September 15 2014	Policy and Procedure Committee - Approved
NA	August 2007	Last updated.
NA	March 2006	Initial policy release.

Acknowledgements

This policy has been developed based upon policies and documentation from the Agencies of the Tri-Council of Canada and other Conestoga documents.