

 Laurentian University Université Laurentienne	LAB SAFETY POLICY		
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LABORATORY SAFETY POLICY

Laurentian University is committed to providing a safe work environment for learning, teaching and research. The Occupational Health and Safety Office (OHSO) promotes workplace safety through various policies and programs, many of which are outlined in this manual. The following sections are meant to provide general laboratory safety procedures.

Each laboratory is a unique environment, and site-specific hazards must be addressed by each supervisor/principal investigator when establishing proper work practices. It is each laboratory professional's duty to conduct their work in a responsible manner, and to take all necessary precautions to protect themselves and others in the area from exposures to hazardous materials. Upon request and during laboratory audits, the Health and Safety Specialist will assist in performing a risk assessment for procedures of moderate to high risk, aid the lab in evaluating the risk, and help with the development of written standard operating procedures (SOP).

If work practices currently being employed in your laboratory do not comply with those in this manual, please make the necessary changes. The Health and Safety Specialist can be reached for questions by calling 705-675-1151 ext. 3061 or by emailing gbenoit@laurentian.ca.

EVERY PERSON WORKING OR INTENDING TO WORK IN A LABORATORY MUST READ THIS DOCUMENT

Safety standards are designed to reduce the inherent risks in the handling of dangerous materials and potentially dangerous procedures or practices. All laboratories can be inherently dangerous places and the attitudes and actions of those who work in the laboratory determine their own safety and that of their colleagues and, ultimately, that of the community. Different standards are set for different levels of risk.

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High levels of risk require more stringent standards than lower levels of risks. Laboratory equipment and design have become more sophisticated and safer, but safe operation still depends on properly trained and genuinely concerned personnel, who are safety conscious at all times.

We trust that this handbook will help you to work safely and to develop effective safety programs. We welcome any suggestions you have to improve both the handbook and Laurentian University's safety programs.

1.1 GOAL

The purpose of this program is to:

- Ensure compliance concerning safety in a laboratory setting to the obligations of the Ontario Occupational Health and Safety Act;
- Prevent accidents and injuries in a laboratory setting and to provide and maintain a safe and healthy work environment for all employees, students and visitors;
- Communicate responsibilities for handling health and safety concerns in a laboratory setting including appropriate consultation and input, approval and administration of laboratory safety procedures as explained in the Laboratory Safety Handbook.

1.2 SCOPE

This program applies to all full-time and part-time employees, university departments and faculties and students who are actively engaged in laboratory work at Laurentian University.

1.3 PROGRAM STATEMENT

- a. Laurentian University recognizes the value of every member of the campus community, and it is, therefore, vitally interested in the health and safety of all persons working, studying, residing, or visiting on or within its premises, wherever situated.
- b. This program is intended to provide directives and describe the University's position on laboratory safety issues. It acts to ensure that laboratory safety practices and processes are in complete conformity with all relevant statutes and regulations pertaining to post-secondary institutions in the Province of Ontario.
- c. Information presented in the Laboratory Safety Handbook ("the Handbook") provides directives on dealing with various laboratory safety concerns. Every worker/student working in a lab must be instructed on safe work procedures as well as participate actively in the implementation of these safe work practices.
- d. **All procurement of materials requiring regulatory body approvals must be approved by the Health and Safety Manager prior to purchase. Failure to comply may result in revocation of purchasing ability.**

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- e. In the event of an incident in a laboratory that may pose a health and safety concern to the University community, the incident must be reported to the supervisor by the individual. Supervisors are referred to the resources listed below and must follow the procedures outlined in the Handbook for the particular incident.
- f. Throughout this manual, proper training and knowledge of equipment and materials are stressed. With the WHMIS legislation, suppliers are required to provide Safety Data Sheets, and these should always be consulted prior to working with a new material. If you have any questions about how to undertake a task or project safely, contact your supervisor.
- g. The individual supervisors must identify and supplement this manual with safety procedures and training specific to the needs of their laboratory safety program, if the subject is not adequately covered in this manual.
- h. In all cases, the individual supervisor is ultimately responsible for teaching safe-work practices and must insist upon the use of such proper procedures. Records of such training must be kept and sent to the [Health and Safety Manager](#).
- i. Supervisors must inspect their laboratory as well as all safety equipment such as eye wash stations regularly. A record of such inspections must be kept and sent to the Office of Occupational Health and Safety. You can find an example of an inspection sheet on [LUNET](#).

1.4 RELATED POLICIES, PROCEDURES AND OTHER DOCUMENTS

- [Occupational Health and Safety Act](#)
- [Laboratory Safety Policy](#)
- [Health and Safety Policy and Procedures](#)
- [Laurentian University Radiation Program](#)
- [Biosafety Program](#)
- [Canadian Biosafety Standards, Second Edition, 2015](#)
- [Laboratory Safety Guidelines](#)

1.5 RESPONSIBILITIES AND LIABILITIES

Everyone actively engaged in laboratory work is legally responsible for safety performance. All laboratory personnel must meet the legal requirements of various environmental and health-and-safety statutes. It is expected that adherence to this manual is a good starting point for establishing an acceptable laboratory safety program. Everyone is encouraged to develop and use practices which exceed the basic information in this manual.

More detailed and specific safety procedures and practices may be necessary. Any deviation from this manual must be to establish safer practices. Everyone should be able to justify that reasonable care and deliberation have been exercised before the implementation of any changes.

It is everyone's responsibility to know all emergency procedures, location, and use of safety equipment and exit routes in case of an emergency.

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Under the terms of the Occupational Health and Safety Act (OSHA), employees have a responsibility to report to their supervisors the existence of hazardous conditions which are contrary to good health and safety practices, or which contravene any requirements of the Act. It is the supervisor's responsibility to ensure that corrective action is taken at once.

It is the unconditional right of all members of the University community to bring, without prejudice, health-and-safety concerns to their supervisors, or to Human Resources (Occupational Health and Safety), or to the Joint Health and Safety Committee. The supervisor, in every case, must be informed of a concern before a complaint is taken elsewhere.

Department Chair shall

Ensure that facilities and activities related to Lab safety follow all regulations and policies set out by Laurentian University.

Lab Safety Committee shall

1. Develop a comprehensive health and safety program for all laboratory work.
2. Identify all activities involving laboratories.
3. Review annually the Laboratory Safety Program

Faculty/Staff and Students shall

1. Comply with all conditions outlined in the lab safety program
2. Report any unsafe conditions and procedures to the immediate supervisor
3. Participate in lab safety training and spills mitigation.

Health and Safety Manager shall

1. Serve as a resource for the Lab Safety Committee.
2. Audit teaching and research laboratories for compliance with lab safety requirements, established safety procedures and performance of safety containment equipment.
3. Maintain files for lab safety training and inspections.
4. Order, on the advice of the Lab Safety Committee, the suspension of any activity involving the use of a laboratory, when there is reason to suspect the health and safety of University personnel and/or the public are at risk.

1.6 MANAGEMENT OF NON-COMPLIANCE WITH THIS POLICY

Laurentian University's Lab Safety Committee is responsible for monitoring the safety practices in laboratories and working to correct breaches of compliance. Breaches of compliance that cannot be corrected by the Lab Safety Committee will be referred to the Health and Safety Specialist.

When an allegation of non-compliance is made, the Health and Safety Specialist shall investigate the matter and determine whether the allegation is valid. In cases where the allegation is found to be valid upon investigation, the Health and Safety Specialist will proceed as follows:

The Health and Safety Manager will inform the Supervisor (Principal Investigator, Instructor, Lab Manager or the involved Department Chair) in writing that a breach in protocol has occurred and allow time to rectify the breach. In the meantime, the Lab Safety Committee will be advised of the situation.

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Should the written response of the Supervisor be insufficient, the Health and Safety Specialist will schedule an emergency meeting of the Lab Safety Committee.

The allegation to and the response from the Supervisor will be discussed at the emergency meeting. The Committee must then make one of the following determinations:

1. The response to the allegation is adequate. No further action is required.
2. The response to the allegation is inadequate and the allegation involves minimal risk (as determined by the Committee). Recommendations must then be sent to the Supervisor, and a specified time period will be set for the issue to be resolved.
3. The response to the allegation is inadequate and the allegation involves, or could potentially involve, significant risk. Recommendations to suspend activities will be sent immediately to the Health and Safety Manager.

In the event the Health and Safety Manager or other designated individuals from the committee discovers conditions which pose an immediate threat to laboratory workers, community or the environment, the Health and Safety Manager or one other designated individual from the Committee can recommend immediate action to the appropriate Vice-President. The recommendation can include the immediate suspension of the related activity.

The decisions of the Committee shall be documented in writing. All correspondence directed to the Supervisor will be copied to both the Department Chair and the Dean.

Recommendations to the appropriate Vice-President, shall be made in a formal letter detailing the following:

1. The issue
2. The alleged infraction
3. Steps taken to resolve the issue
4. Recommendations of the committee
5. Time period for response to be made to the committee.

1.7 GENERAL HAZARD INFORMATION AND TRAINING

a. General Lab Safety Training:

Each laboratory employee and student shall be required to take a general laboratory safety course online before beginning work in the lab and annually thereafter.

Wherever applicable, awareness of the lab safety program is included in new employee and student orientation. The responsibility for providing this orientation and for ensuring that generic guidelines are understood and specific procedures are followed belongs to the supervising faculty member. Faculty Deans, Chairs and Directors have the responsibility for ensuring that faculty members carry out the requirements of this section.

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b. Other General Training:

Laboratory employees or students exposed to general hazards that are not covered in the general laboratory safety training may be required to take other applicable safety trainings offered by the Occupational Health and Safety Office. Examples include:

- Wilderness First Aid for laboratory personnel who may work in the field.
- Lockout-Tagout training for laboratory personnel who may perform service or maintenance on equipment where the unexpected start-up, energization, or release of stored energy could occur and cause injury.
- Hearing Protection or Hearing Conservation training for employees exposed to hazardous noise.
- Ladder Safety training where step ladders or extension ladders are used.

c. Laboratory-specific Training:

The Principal Investigator or Laboratory Safety Coordinator shall conduct laboratory-specific hazard awareness training for each laboratory employee or student before that person begins working in the lab. This hazard awareness training shall be reviewed as necessary and any time a new hazard is introduced. Records shall be kept to indicate topics covered, name of person providing training, persons in attendance, and the date. These records must be forwarded to the Occupational Health and Safety Office.

Examples of information to be covered (when applicable) in laboratory-specific training are listed below:

- The location and contents of the Laboratory Emergency Response and Incident Reporting Guide.
- Departmental or lab-specific incident reporting requirements.
- Location of emergency equipment such as fire extinguishers and fire alarm pull stations.
- Location of the lab's emergency assembly point.
- Proper use and disposal of razor blades or other sharps (including broken glass disposal boxes).
- Safe use and storage of stepladders or stools.
- Safe use of laboratory equipment.

1.8 RIGHT TO REFUSE UNSAFE WORK

Under the provisions of the OHS Act, workers have the right to refuse to perform work which they believe may endanger the health or safety of themselves or another worker. There are strict guidelines to be followed in this instance by the worker, the supervisor, and other interested parties. For further information, employees are referred to Section 43 of the Act.

1.9 REPORTING ACCIDENTS OR INJURIES

Every accident, whether or not it results in injury or is a "near miss" occurrence, should be reported to your supervisor or department director/chair within 24 hours. The incident report form is available on [LUNET](#). The supervisor or department director/chair must then immediately advise Human Resources ([Occupational Health and Safety](#)) of the accident, to provide, when applicable, details for completion of a

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Form 7 to the Workplace Safety and Insurance Board. In those circumstances where the employee has no immediate supervisor, or the supervisor is absent, then the employee must initiate this contact with Human Resources (Occupational Health and Safety).

1.10 JOINT HEALTH AND SAFETY COMMITTEE

The Joint Health and Safety Committee are very active on campus, and meets on a regular basis. Minutes of every meeting are circulated to all members of the Committee, the presidents of all unions and associations represented, the Executive Committee of the Board of Governors and to senior administration. Check with your association, union or Human Resources (Occupational Health & Safety) to find out more about the duties and responsibilities of Committee members, the name of your member, and how to reach them.

a. Lab Safety Committee

Laurentian University's Lab Safety Committee is authorized to oversee the University's Lab Safety Program, provide policy direction and make recommendations to the Vice President, Research, for all matters pertaining to research and teaching in a laboratory setting. This committee will be responsible for reviewing the operational safety of both teaching and research laboratories at the University and for recommending policies and procedures to improve health and safety in these areas. It is intended to provide a mechanism whereby knowledgeable input from laboratory practitioners and others is received, reviewed and utilized to advise the Vice President, Research, on health and safety matters specific to laboratories and the environment.

b. Workplace Inspections

Regular inspections of the workplace help to identify hazards and prevent accidents. It is the Department's responsibility to schedule and conduct regular inspections. Workers and the employer must give information and assistance to carry out these inspections.