

Category:	Health and Safety	Number:	CHEM-HS-0001
Responsibility:	Department Safety Officer	Approval:	Chair, Department of Chemistry
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1. Background

Safety in chemistry labs is of the utmost importance in order to lower the risk of personal injury and damage to property, and to ensure the generation of reproducible, high-quality data. It is the goal of the Department of Chemistry to foster a culture of safety in its research labs for all faculty, staff, students, and visitors.

2. Purpose

The following document outlines the basic *requirements* and *recommendations* for personal protective equipment (PPE) for individuals entering chemistry research labs as stipulated by the Department of Chemistry. Individual researchers and lab supervisors are encouraged to implement the use of PPE beyond the basic minimum standards described here, as circumstances require. Individual researchers and lab supervisors should also feel empowered to restrict entrance to their lab by anyone not complying with the Department's PPE requirements.

3. Scope¹

This policy applies to any and all individuals entering, working in, or passing through lab facilities, be they teaching, research, or instrumentation labs, under the control of the Department of Chemistry.

4. Policy

4.1. Eye protection

4.1.1. Requirements

- The wearing of eye protection is mandatory in all research and teaching labs at all times for students, post-docs, faculty, and staff members. This requirement also applies to any external visitors to the Chemistry Department labs.
 - The members of Custodial Services and Facilities Management are required to abide by these requirements if entering a Chemistry lab and are encouraged to carry with them their own acceptable safety glasses.

¹ Researchers and/or visitors in the computer labs do not require eye protection, lab coats, or gloves. Use of eye protection is recommended for researchers in non-synthetic chemistry labs; it is understood that operation of some instruments may require temporary removal of eye protection, in which case discretion as to the appropriate practice can be decided by the laboratory supervisor.

- Anyone entering a Chemistry research or teaching lab **MUST** wear UVEX Astro OTG 3001 safety glasses (VWR Cat. No. CA33000-506, available from Science Stores), safety goggles that completely surround the eyes, or prescription safety glasses that have a brow ridge and side shields, regardless of whether they intend to work in the lab or are simply passing through. These types of eye protection provide a continuous brow bridge and side shields to mitigate the chances of foreign materials entering the eyes should something splash on one's face. Alternatives to these models must be cleared with the Department Safety Officer.
- These safety glasses are designed to be worn over prescription glasses if needed.
- Students are welcome to arrange for the purchase of prescription safety goggles with a similar brow bridge and side shield design if they so desire.
- The Department advises strongly against the wearing of contact lenses in the research labs.

4.1.2. Location/Storage of Safety Glasses

- Any individuals entering the Cairns labs should enter the labs only through the student office area so that students/post-docs can store their safety glasses at their desks when not in use. In this manner, no one will ever have to enter the labs without eye protection.
 - There should be a number of safety glasses available for visitors to the labs stored in the student office area.
- Individuals working in Mackenzie-Chown labs should store their safety glasses by the main entrance(s) to the lab so that the safety glasses can be put on immediately upon entering the lab and deposited at the door when exiting the lab. In this way no one will ever have to enter/pass through a lab without eye protection
 - There should be a number of safety glasses available for visitors to the labs stored at the main entrance(s) of the lab

4.1.3. Consequences of failing to wear eye protection

- Any researchers (undergraduates, graduates or postdocs) who are observed to be working in research labs without eye protection by the Chair of Chemistry, the Chemistry Safety Officer, or their immediate research supervisor **will be required to leave the laboratory for the remainder of the day**. It is the responsibility of the affected researcher to make arrangements to deal with any ongoing experiments with other members of his/her research group before departure to ensure the safety of other lab occupants.
- The infraction will be logged in writing with a copy sent to the student, the student's supervisor, the Department Safety Officer, and the Department Chair. The Department Safety Officer will keep a record of all infractions to monitor the effectiveness of the measures over time.
- If three (3) infractions are recorded for any individual this will result in an **immediate meeting** with the individual, his/her supervisor or supervisory committee (in the case of graduate students), the Departmental Safety Officer, and the Chair of Chemistry.
- Any individuals, be they student, staff, or faculty, not directly associated with a lab, are to be denied access to that lab and the incident reported to the Department Safety Officer.

4.2. Lab Coats

- The Department strongly recommends that all researchers wear lab coats when working in a chemistry laboratory.
- Lab coats must not be worn in "chemical-free" areas such as office areas and eating spaces in either the Cairns or Mackenzie-Chown complexes.
- Lab coats should be laundered on a regular basis (ideally once a month) in the laundry facilities located in CRN 108.

- Chemistry has access to the laundry facility on every Wednesday.
- Spare lab coats should be available for visitors to the lab.

4.3. Gloves

- Individuals working in Chemistry labs should wear appropriate gloves (nominally latex or nitrile) according to resistance to the substances being handled.
- Gloves **MUST NEVER** be worn outside of a lab and must never be worn while when opening doors.

4.4. Footwear

- Individuals working in or entering Chemistry research or teaching labs must wear closed-toe shoes.

4.5. Recommendations

4.5.1. Other

- Each Chemistry research laboratory should have the following items on hand for use as required:
 - A full-face shield.
 - A pair of splash goggles that cover the eyes completely.
 - Gloves for handling cryogenic fluids.

Amendments (revision history)

Date revised	Responsible
Enter date	Enter position/title