

NBK Institute Laboratory Access Protocols

The Norman B. Keevil Institute of Mining Engineering (NBK) strives to provide a safe and efficient workplace within all of our laboratory facilities. Safety is our number one priority above **ALL** other commitments.

All users of the laboratory facilities – regardless of position or status in the department (*including those from outside of the department*) will be informed of and follow all laboratory safety protocols set out in this document.

General NBK Laboratory Access Protocols

All users of our lab facilities must follow the items below:

1. Received Health and Safety training from the Department Safety Coordinator (Presently Dr. Maria Holuszko and Carmen Jensen). If Health and Safety Training has not been received, please arrange with your supervisor or contact Dr. Maria Holuszko at meh@mining.ubc.ca.
2. All Personal Protective Equipment must be worn at all times while in the lab facilities. The minimum requirement includes glasses/goggles, lab coat, covered legs and adequate footwear (flat and closed-toed shoes). For laboratory work using dust generating equipment or toxic chemicals, appropriate dust masks and respiratory devices must be used. Respiratory masks must be properly fitted.
3. Devices that completely obscure hearing are not permitted in the lab. All long hair and loose clothing should be secured properly.
4. No one may work in the NBK lab facilities alone. Outside of normal lab hours, individual lab users must ensure that they have someone else to work with them in the facility.
5. The working area must be cleaned after each lab session, including bench tops, equipment, and floors, as well as any glassware that has been used.
6. No smoking is allowed 6 meters away from any NBK buildings; this includes the Coal and Mineral Processing Building and the Frank Forward building.

Policy for Faculty Members and Research Supervisors

1. Faculty and research supervisors are responsible for ensuring their students and other researchers are aware of the NBK Laboratory Protocol, as well as ensuring that all appropriate procedures noted in the Lab Protocol are followed.
2. Faculty and research supervisors are responsible for ensuring that appropriate procedures are in place for the projects that are undertaken by their graduate students as well as other researchers under their supervision.
3. Faculty or course instructors are responsible for informing Teaching Assistants about conducting a safety orientation at the start of each laboratory session (5-10min presentation on safety hazards relevant to each lab), as well as communicating to their Teaching Assistants that written lab instructions are to be handed into the relevant lab technicians at least 24 hours before the start of the lab.
4. Faculty and research supervisors are responsible for informing Teaching Assistants to arrange for departmental Health and Safety training at the beginning of the term (before classes start, only required if the Teaching Assistants have not yet received the Health and Safety training).

Policy for Undergraduate Students

1. Undergraduate students are not allowed, under any circumstances, to work unsupervised during their lab classes. Teaching Assistants (TA) are to be present at all scheduled lab times; special arrangements are to be made if the work is performed outside of regular/ scheduled lab hours. This special arrangement has to be communicated with the appropriate lab technician or a Safety Committee member.
2. The undergraduate students are required to follow all general lab protocols.

Policy for Graduate Students

1. All graduate students working in the lab area are required to attend the departmental Health and Safety orientation session (compulsory). The ore assessment forms along with the equipment check list should be completed and submitted to technical personnel in charge of the lab in which the research activities will be carried out and another copy should be kept with the researcher's supervisor.
2. In case of continuous work carried out by the graduate student there is no requirement for retraining, however if the work has been discontinued for more than 6 months, the returning student needs to be retrained or their record needs

to be updated after the return to work. The updating is also required if there are any changes to the project in terms of using different chemicals or machinery.

3. Graduate students are required to provide to the supervisor Standard Operating Procedures (SOP) for the experimental procedures they are using in the project.
 - Graduate students are required to be trained in the safe use of equipment and procedures, as coordinated by the supervisor.
 - Random inspections will be carried out once a month to enforce compliance of the policies.

Policy for Teaching Assistants

- 1 Teaching Assistants are responsible for arranging an introduction to Health and Safety for their students. It is expected that this training is arranged at the first scheduled laboratory session/ class. Teaching Assistants are also required to go through the departmental Health and Safety training before they can work with the students.
- 2 Teaching Assistants are required to communicate general and specific safety hazards before the start of each lab class. This orientation session should not be longer than 5-10 minutes and should identify specific hazards and assessment of relevant risks (MSDS, hazards related to the material handled during the particular laboratory session as well as material disposal after the class ends).
- 3 Teaching Assistants are responsible for leaving the lab area clean. It is recommended that this responsibility should be enforced through an appropriate grading system.
- 4 Teaching Assistants are responsible for providing written laboratory instructions to the relevant laboratory technicians at least 24 hours before the start of the laboratory session.
- 5 Laboratory inspections will be carried out routinely to ensure compliance to the policies for undergraduate laboratory classes.

Policy for Outside Clients and External to UBC Projects

1. Outside (non-UBC) clients need to undertake departmental Health and Safety orientation training (with yearly renewal).
2. Outside (non-UBC) clients need to present their liability insurance to a member of the Safety Committee.
3. Outside (non-UBC) clients are required to communicate the scope of the work and schedule with the technical staff before they arrive to perform the work on the NBK-UBC premises.
4. Visitors who are invited by the Faculty or Staff are required to comply with the NBK-UBC Safety regulations as outlined in

<http://www.mining.ubc.ca/files/safety/>

5. It is advisable for Faculty or Staff to provide safety protective clothing for visiting guests or to ensure they bring their own.