

Health and Safety Program Manual

Department of Botany

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Emergency and Safety Contacts

EMERGENCY:

911

Police | Fire | Ambulance | Hazardous Spill

NON EMERGENCY	
RCMP	604-224-1322
Vancouver Fire and Rescue	604-665-6010
BC Ambulance Service	604-872-5151
SECURITY & PERSONAL SAFETY RESOURCES	
Campus Security (Vancouver)	604-822-2222
AMS SafeWalk	604-822-5355
FIRST AID RESOURCES	
Closest Defibrillator	Direct Link ; or https://srs.ubc.ca
UBC Faculty, Staff, and Student Workers	604-822-4444
UBC Students	911 or Student Health at UBC Hospital 604 822-7011
Visitors	911 or Urgent Care at UBC Hospital 604-822-7222
SAFETY RESOURCES & SAFETY & RISK SERVICES CONTACTS	
Sexual Violence Prevention and Response (SVPRO)	604-822-1588
Report an Accident or Incident	www.cairs.ubc.ca
Asbestos Safety	604-822-8772
Biological and Radiation Safety	604-822-4353
Chemical Safety	604 827-3409
Emergency Management & Business Continuity	604-822-1237
Health and Safety - Faculty of Medicine	604-827-1982
Health and Safety - Student Housing and Hospitality Services	604 827-2671
Health and Safety - Facilities	604 822-1885
Safety & Risk Services	604-822-2029
Safety Programs	604-822-6513
Student Health	604-822-7011
Equity and Inclusion	604-822-6353
Counseling Services	604-822-3811
Ergonomics	604-822-9040
Occupational Hygiene	604-822-6098



AED Locations for Key Buildings

Biological Sciences (BioSci)	Outside Room 2200 (West Wing Entrance)
Beaty Biodiversity	Across from Room 113
Campus Security	Campus Security Main Entrance
Michael Smith Labs	Main Floor Entrance
UBC Bookstore	Sales Floor, Bottom of the mezzanine staircase.
Wesbrook Building	Outside Room 100



Safety in the UBC Botany Department

UBC Botany is committed to keeping you safe while you work or study. This includes having workplace free of discrimination and harassment (UBC Respectful Environment Policy) and a workplace where risks related to your work are minimized by proactive management (Occupational Health and Safety).

Therefore, we have the Botany Safety Manual, which is an Occupational Health and Safety Program (Appendix 1). It is a legal document based on a template from the UBC unit that helps us manage risk, with the support of UBC Safety & Risk Services (SRS). There are 14 elements to the Botany Safety Manual, and the detailed elements are found in Appendices 2-15. Botany-specific aspects of each element are summarized here.

Botany Element 1: Health and Safety Policy

The University of British Columbia (UBC) is committed to providing a safe, healthy, secure and environmentally friendly workplace and learning environment for its employees and students. Through cooperative efforts of workers, supervisors and management within the Department of Botany, we will be able to carry out the objectives of [Policy SC1: Occupational and Research Health and Safety](#) and provide a collaborative working environment that will strengthen our commitment to the University's overall safety culture (For the full details, see Appendix 2).

UBC POLICY SC1: OCCUPATIONAL AND RESEARCH HEALTH AND SAFETY

UBC aims to eliminate unnecessary risks, injuries, and occupational diseases, from UBC's workplace, teaching, and research environments. UBC accepts Applicable Standards as minimum standards and may establish and enforce more stringent standards, as it deems appropriate for UBC Members.

Each UBC Member who engages in or is responsible for a UBC Activity involving Hazardous Materials and Wastes must:

- Comply with this Policy and the Procedures;
- Understand the Occupational Health and Safety Program, the Biosafety Program, the Radiation Safety Program, and the Chemical Safety Program, prior to carrying out or supervising any UBC Activities; and
- Procure, handle, store, transport, and dispose of Hazardous Materials and Wastes in a manner that harms neither the environment nor living beings.

Each UBC Member engaged in UBC Activities involving, or potentially involving, Hazardous Materials and Wastes should endeavor to:

- Substitute less harmful materials for those that are known to be Hazardous Materials and Wastes prior to the time of acquisition; and
- Acquire or purchase Hazardous Materials and Wastes in sufficiently small quantities to minimize the period of storage at or by UBC.



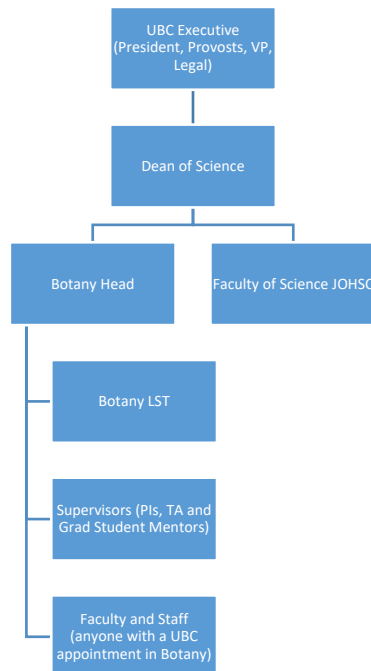
Botany Element 2: Roles, Responsibilities and Accountability

For a detailed list of Roles, Responsibilities and Accountability, see Appendix 3.

The UBC Board of Governors has delegated to the UBC Executive the following occupational health and safety responsibilities of an employer under the Workers Compensation Act. They designate the Department Head to be accountable for safety in Botany, with Safety and Risk Services (central resource and auditor of Policy SC1). The definition of ‘supervisor’ is very broad.

“Anyone—including non-managers, researchers, or faculty—who instructs, directs, and controls another person in the workplace is considered a supervisor by WorkSafeBC. The person does not need to be a direct report—or even in your department.”¹

Anyone in Botany who supervises or directs another worker is considered a ‘supervisor’ and is responsible for their safety. Botany also has the Faculty of Science Joint Occupational Health and Safety Committee (JOHSC) and Botany Safety Committee (Local Safety Team) who help us comply with all safety rules. Everyone (“Faculty and Staff”) are responsible to “take all reasonable and necessary precautions to ensure their own safety and the safety of others around them”



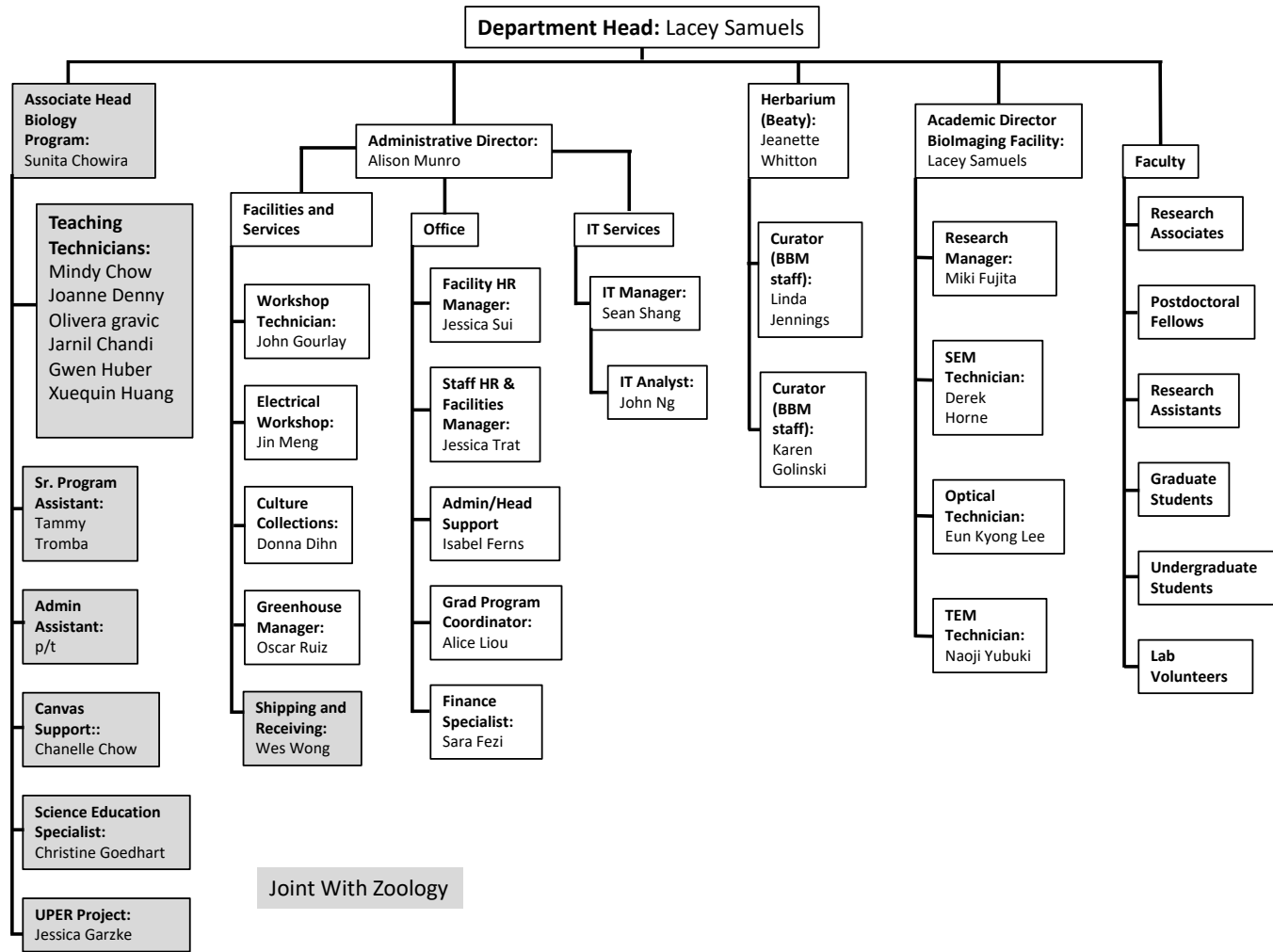
- Our JOHSC is Faculty of Science JOHSC
- Our Local Safety Team is the Botany Safety Committee (Chair Dr. Brett Couch, bcouch@mail.ubc.ca)

¹ UBC SRS Website “YOU MIGHT BE A SUPERVISOR... AND NOT EVEN KNOW IT!”
<https://srs.ubc.ca/2017/03/02/you-might-be-a-supervisor-and-not-even-know-it/>





The roles of the Botany Head in overseeing safety in the Botany Department Organizational Chart is shown below².



² An editable version of this flowchart is available from the safety committee.



Botany Element 3: Faculty/Departmental Leadership Meetings

For full details of safety meetings, see Appendix 4.

Botany must document meetings of the Botany Safety Team and Departmental Leadership Meetings (Botany Faculty Meetings) where Health and Safety as a standing agenda item.

Botany Element 4: Hazard Identification, Risk Assessment and Safe Work Procedures

For the detailed description of WorkSafeBC and UBC's Safe Work Procedures, see Appendix 5.

All Botany Faculty and Staff should constantly assess hazard identification and risk assessment that is ongoing and proactive. Each lab should develop safe work procedures for their research.

BOTANY SAFE WORK PROCEDURES

Safe work procedures effectively control hazards and mitigate risk. Standard Operating Protocols have been approved as Safe Work Procedures.

If one of your experimental procedures is not covered by a Botany SOP, consult Safety & Risk Services (SRS) and/or JOHSC to develop and approve your Safe Work Procedure (SWP).

Be sure to review these procedures whenever a job changes, new equipment is introduced, or workers return after being away for a long period of time. For further information on reviewing procedures, refer to the Safe Work Procedure Guidance Document.

SAFE WORK RESOURCES

Botany-specific Risk Assessments and Safe Work Procedures can be found at:

- <https://safety.botany.ubc.ca/training/>

Botany's field safety plan and documentation can be found at:

- <https://safety.botany.ubc.ca/field-safety/>

General SWPs for the faculty of science can be found at:

- <https://science.ubc.ca/safety>

Botany Element 5: Workplace Inspections

For a full description of all inspection requirements, see Appendix 6.

A critical component in proactively identifying hazards in the workplace lies in the regular performance of health and safety inspections. Structured examinations of the workplace will not only identify hazards but will help to correct identified safety issues before an injury can occur.



At UBC Botany, a number of different types of inspections occur:

MONTHLY LAB INSPECTIONS = LOCAL AREA SELF INSPECTIONS

Local supervisory staff of the workplace (graduate students, post-doctoral fellows, and faculty) are responsible for conducting these inspections every month. The personnel completing the inspection are required to document the inspection (checklist) and implement a corrective action plan where the immediate supervisor of the area will be responsible for elimination or control of hazards. Documentation of the monthly inspection should be available.

SAFETY INSPECTION RESOURCES

- [General Inspection Checklist and Report Template](#) (JOHSC/LST)
- Botany Lab Inspection Checklist <https://safety.botany.ubc.ca/training/>

ANNUAL BOTANY INSPECTIONS = (LOCAL SAFETY TEAM) INSPECTIONS

Documented workplace inspections are a regulatory requirement under the Workers Compensation Act and the Occupational Health and Safety Regulation. Members of the Botany Local Safety Team carry out regular inspections of the research and teaching laboratories in Botany. They are required to use the UBC standardized “General Inspection Checklist”. The Botany LST will review inspections as a committee and recommend corrective actions.

EQUIPMENT INSPECTIONS

Equipment inspections are independent of laboratory Inspections.

Equipment inspections include inspections of tools, vehicles, machinery or equipment, conducted by workers familiar with the tool, vehicle, machinery or equipment. The frequency depends on the manufacturer’s recommendation or industry standards for preventative maintenance. Pre-use inspections are conducted before every use, using a checklist if appropriate. Specialized equipment may require consultation from trained professionals.

SPECIALIZED COMPLIANCE SAFETY INSPECTIONS/AUDITS

These inspections are only for labs with special safety or regulatory requirements such as radioisotope or Biosafety risks. For research spaces that require federally regulated inspections, e.g. radioisotopes, Safety & Risk Services will collaborate with responsible management.

Botany Element 6: Orientation and Training

For detailed instructions on employee orientation and training, see Appendix 7.

SAFETY ORIENTATIONS FOR NEW AND YOUNG WORKERS

The following topics must be included in the young or new worker's orientation and training:

- 1) the name and contact information for the young or new worker's supervisor;



- 2) the employer's and young or new worker's rights and responsibilities including:
 - a. the reporting of unsafe conditions, and
 - b. the right to refuse to perform unsafe work;
- 3) workplace health and safety rules;
- 4) hazards to which the young or new worker may be exposed.
- 5) personal protective equipment;
- 6) location of first aid facilities and means of summoning first aid and reporting illnesses and injuries;
- 7) emergency procedures;
- 8) instruction and demonstration of the young or new worker's work task or work process
- 9) the employer's health and safety program
- 10) WHMIS information requirements as applicable to the young or new worker's workplace
- 11) Contact information for the joint occupational health and safety committee



UBC MANDATORY TRAINING COURSES

As a new employee, a number of courses are mandatory to meet WorkSafeBC and UBC requirements. At UBC, a worker includes, UBC Executive(s), Management, Faculty, Staff, and Student workers.

Mandatory Training for all workers includes:

- [New Worker Safety Orientation](#) – this assists in meeting the requirements outlined above.
- [Preventing and Addressing Workplace Bullying and Harassment Training](#)
- [Workplace Violence Prevention Training](#)
- [Safety Supervision at UBC \(for supervisors only\)](#)

Please see the Botany Safety Training Checklist on the Training and Resources Tab of the Botany Safety Website (<https://safety.botany.ubc.ca/training/>)

JOB SPECIFIC TRAINING-BOTANY YELLOW FOLDER

The Botany Yellow Folder for each person documents their mandatory and job specific training. The supervisor is primarily responsible for maintaining training records. Training records will be part of lab inspection and can be requested by Safety and Risk Services or WorkSafeBC as part of an inspection.

SAFETY TRAINING RESOURCES

- Department of Botany Safety Website <https://safety.botany.ubc.ca/>
- Training records are to be kept in the Yellow Folders provided by the department.
- Safety and Risk Services Safety Programs and Training <https://srs.ubc.ca/health-safety/safety-programs/>

Botany Element 7: Reporting /Investigating Incidents & Accidents

For details of Incident and Accident reporting, see Appendix 8.

The purpose of incident reporting and investigating is to identify factors that contributed to the incident and to implement corrective actions. This will help create a safe working environment and prevent reoccurrence of similar incidents. An incident investigation is an analysis of an incident based on the factual information gathered of all the factors involved to determine the preventative root causes.

An additional purpose of reporting is to document the facts leading to a workplace injury, in case of a WorkSafeBC claim. See Appendix 8 for details of investigation that should be done within 24 hours.

WORKSAFEBC REQUIRES THE FOLLOWING TYPES OF INCIDENTS TO BE INVESTIGATED



AFTER CONTACTING THE APPROPRIATE EMERGENCY SERVICES, THE FOLLOWING INCIDENTS ARE REQUIRED TO BE IMMEDIATELY REPORTED TO SAFETY & RISK SERVICES (SRS)

- A serious injury to or the death of a worker
- A major structural failure
- A major release of a hazardous substance
- A fire or explosion that had potential for serious injury
- A blasting incident causing personal injury
- A dangerous or unusual incident involving explosives
- A diving incident that causes death, injury or decompression sickness requiring treatment
- A major exposure to a pathogenic or radioactive substance

During work hours, 8:00am – 4:30pm Monday- Friday at 604-822-2029. After work hours, contact Campus Security at 604-822-2222 and the call will be forwarded to SRS' 24/7 on-call personnel.

Note: Upon notification, SRS will immediately notify WorkSafeBC of the incident .



SUPERVISOR RESPONSIBILITY

It is the responsibility of the supervisor to investigate an incident that has occur in their area. Subject matter experts and workers familiar with the associated work are available to assist as required.

- 1) Educate all workers under their supervision to report all incidents that have occurred in the workplace
- 2) In the event of an injury, all workers are aware of how to access first aid by contacting 2-4444 (Point Grey Campus only)
- 3) Completing an incident report in the UBC Centralized Accident/Incident Reporting System ([CAIRS](https://www.cairs.ubc.ca/public_page.php) https://www.cairs.ubc.ca/public_page.php)
- 4) Informing injured workers to initiate a WorkSafeBC claim by calling 1-888-967-5377 if they have seen a doctor or missed any time from work beyond the date of the incident
- 5) Ensuring corrective actions are implemented and effective

IMPORTANT: The Worker and Supervisor are able to submit an incident report in [CAIRS](#)

CENTRALIZED ACCIDENT/INCIDENT REPORTING SYSTEM

The [Centralized Accident/Incident Reporting System \(CAIRS\)](#) is used to:

- Report incidents
- Obtain required information to initiate a WorkSafeBC claim for work-related injuries/illnesses
- Document incident investigations

RESOURCES

- [Accident/Incident Reporting Program](#)
- [UBC Incident Site Investigation Guide](#)

Botany Element 8: Documentation, Records and Statistics

It is the Administrative Head of Unit's responsibility to ensure proper record keeping and statistics are kept for the prevention of injuries and illnesses in their area of responsibility. For a complete account of the documentation required, see Appendix 9.

Botany is required to keep the following safety records:

A) Safety Orientation and Training Records, including:

- **Mandatory and Program-Specific Training**
 - Maintain SRS Course certificates for mandatory and program specific courses



-
- Maintain completed safety orientation documents – such as online New Worker Orientation
 - Note: Training certificates do not always have to be printed out but they should be readily accessible when needed
 - **Site Specific Orientation Records** –Part 2 of the New Worker Orientation
 - **Job Specific Training when hazards are present**
 - Training delivery and verification of competency must always be documented where there is a potential for worker exposure. Job Specific training records provide a legal record that workers have been trained to competently recognize and deal with hazards as outlined in the procedures.
 - Note: [A Task Specific Training Documentation Template](#) is available to guide you in the documentation of staff training assessments and completion.

Botany Element 9: Joint Occupational Health and Safety Committee (JOHSC) and Local Safety Team (LST)

A JOHSC is made up of worker and employer representatives working together to identify and resolve health and safety problems in the workplace. They are mandated to advise, assist, and make recommendations to improve occupational health, safety, and personal security within UBC's workplace environments.

Our JOHSC is Faculty of Science. Their minutes can be found here: <https://science.ubc.ca/safety> ([Safety Committees Website](#))

Our Local Safety Team is the Botany Safety Committee (Brett Couch, chair). Contact Brett (bcouch@mail.ubc.ca) with any safety questions or concerns.

Botany Element 10: Emergency Procedures and First Aid

University "2-4444" Central First Aid System. Faculty, Staff and Paid/Practicum Students can call 604-822-4444 (or 2-4444 on a campus phone) which will summon trained first aid attendants, to the location of the injured person.

911 Faculty, Staff, Paid Students, Students, Visitors

Full details of UBC's First Aid can be found in Appendix 11.

The UBC Occupational First Aid program will provide first aid coverage for all Faculty, Staff, and Paid/Practicum Students for the UBC Point Grey Campus, 24 hours a day.



BUILDING EMERGENCY RESPONSE PLANS (BERP) AND PROCEDURES

A Building Emergency Response Plan (BERP) details plans and procedures for situations where emergencies could arise. These plans and procedures deal with fire prevention, emergency evacuation, personal security, earthquake and bomb threats. Every Botany member should know where to meet outside the building, in case of fire or other emergency.

Depending on the nature of the emergency, response will be provided by Vancouver Fire and Rescue Services, the local detachment of the RCMP, Campus Security and/or SRS.

For the Biodiversity Building, the BERP is found here:

https://biodiversity.ubc.ca/sites/biodiversity.ubc.ca/files/u81/berp_2019_beatybiodiversitycentre.pdf

For the Biological Sciences Building, the BERP is found here: [BiosciencesPlan.pdf](#)

Cardiac Arrest-AUTOMATED EXTERNAL DEFIBRILLATORS (AEDS)

In Botany, there is an AEDs outside of Biological Sciences room 2203 and the Biodiversity Research Centre near room 113.

AEDs provide quick response in the event of a cardiac arrest where an individual has fainted, a pulse is not detected the person is not breathing³. The defibrillator provides quick access to help and can increase the chance of saving someone's life. Using a defibrillator is safe and straightforward, and its light weight means it can be carried to where it is needed. Once activated, the device provides easy-to-follow voice instructions and automatically determines if someone requires a life-saving shock. Defibrillators cannot do harm, and will only deliver a life-saving shock if it is required in the case of cardiac arrest. It will not shock someone accidentally. When an AED is used, a CAIRS report must be completed and you must contact Campus Security who will retrieve the used AED and replace it with a temporary unit.

RESOURCES

- First Aid Poster ([UBC Vancouver Occupational First Aid Poster](#))
- [AED Locations at UBC Vancouver](#) ([General AED Information](#))

³ The Mayo Clinic <https://www.mayoclinic.org/diseases-conditions/heart-arrhythmia/in-depth/automated-external-defibrillators/art-20043909>



Botany Element 11: Hazardous Materials Management

BIOLOGICAL SAFETY

Biosafety is the containment principles, technologies and practices that are implemented to prevent unintentional exposure to biological material and toxins, or their accidental release. The primary objective of the UBC Biological Safety Program is to facilitate and ensure the safe and knowledgeable use of biological materials in research, teaching and the environment. Additionally, the Biosafety Program supports the containment practices for genetically modified organisms, environmental pests/insects, and invasive species.

According to the UBC Biological Safety website: “There is a distinction between biological materials and biohazardous materials. Biological materials encompasses all materials containing genetic information and is capable of replication. Included in this is viruses and prions. Biohazardous materials are defined as infectious agents or hazardous biological materials that present a risk or potential risk to the health of humans, animals to the environment. “

Follow the Botany Standard Operating Protocol for disposal of Risk Group 1 (no known risk) organisms such as non-pathogenic *E. coli* used for cloning, and disposal of transgenic plants, such as *Arabidopsis* transformed with Agrobacterium. This is available on the Botany Internal Website. For biological organisms in other Risk Groups, the P.I. is responsible for obtaining the appropriate permits. The Biological Safety training course is recommended for all researchers, including those working with Risk Group 1.

- SRS Website ([Biological Safety](#))
- [Biological Safety Manual](#)
- [Botany Internal Website](#) (accessed through the Botany Homepage under the “Resources” tab)

CHEMICAL SAFETY

All Botany Faculty and Staff who handle chemicals in the laboratory should use appropriate personal protective equipment (PPE), and be fully trained prior to use. Fumehoods should be used as appropriate and tested regularly.

The Chemical Safety Program promotes the recognition, evaluation and control of chemical hazards that may cause illness, impaired health or significant discomfort to UBC faculty, staff and students.

The Chemical Safety Program incorporates the entire lifecycle of the chemical beginning with purchasing and ending with disposal. The aim is to ensure faculty and staff are properly informed on the use and handling of chemicals that are capable of causing injury, illness, disease, fire, explosions or property damage.



Note that the Workplace Hazardous Materials Information System (WHMIS) program is to inform employees about hazardous products used in the workplace through a combination of warning labels, hazard symbols, safety data sheets and training.

For questions about chemical safety or disposal, contact Safety and Risk Management <https://srs.ubc.ca/health-safety/research-safety/research-safety-resources-documents/chemical-safety-resources/> - [What do I need to know in order to work safely with hazardous materials?](#)

- SRS Website ([Chemical Safety](#))
- [SDS Database-provides information on hazards associated with workplace chemicals.](#)
- [WHMIS Information and Training](#)
- [Chemical Safety Manual](#)
- [Spill Clean Up Procedure](#)

RADIATION SAFETY

All research projects using radioactive substances and/or radiation devices must be submitted to the University Radiation Safety Committee for review prior to release of funding to verify that the work planned is compliant with the terms of UBC's CNSC licensing. Once approved, a UBC Radiation Permit is issued by the Committee through [RISe](#). The Permit, which will state the types and amounts of radiolabeled compounds and radiation devices as well as the spaces where they may be used and stored, must be posted in each room listed on the permit. Only study team members listed on an approved permit are authorized to work with radiation as described in the permit.

The Radiation Safety Office acts as a resource on issues of radiation protection, including radiation acquisition, handling and disposal, training, laboratory design and equipment selection. Specialized training is offered for authorized users of open source and sealed substances. The Radiation Safety Training course provides an introduction to the safe handling of radioactive sources and is mandatory for all faculty, staff and students prior to commencing work with radioactive materials.

RESOURCES

- SRS Website ([Radiation Safety](#))
- [Radiation Safety Manual](#)

Botany Element 12: Occupational Hygiene

Occupational Hygiene promotes a safe a healthy environment by providing information and advice on prevention of ill health from work activities. A hazard is anything in the workplace that poses a risk to buildings, machinery/equipment, or individuals. The following items are occupational hazards that can be found in many workplaces. For full details on occupational hygiene, see Appendix 13.

Hygiene Hazards



A hygiene hazard is anything that could cause adverse health effects. Most hygiene hazards can be categorized as physical, biological, or chemical hazards.

Hazard Type	Source
Physical	noise, light, temperature, and radiation
Biological	microorganisms, toxins and animal allergens
Chemical	acidic, basic, and organic vapors in the interior air

To determine if a hygiene hazard can result in adverse health effects, monitoring needs to be carried out through either personal sampling or area sampling using specialized equipment. The results from all monitoring are compared to WorkSafeBC regulations or other applicable standards to ensure compliance. If compliance is not achieved then the necessary controls need to be implemented. See the [SRS website](#) for further information.

Noise Hazards

Noise levels greater than 85 decibels, averaged over eight hours, can damage hearing. If anyone is exposed to this level of noise, controls must be implemented to mitigate the risk of hearing damage.

Nuisance noise is noise that does not cause hearing loss, but may have a psychological effect and impact employee performance. Due to its effect on employees, it should be minimized where possible and should be managed at a local level.

As with any exposure, the hierarchy of controls should be used when controlling for noise exposure. See [Noise Hazards](#) for further information.

If you are concerned that noise in your workplace exceeds 85 dBA, contact the [Occupational Hygienist](#) to arrange an on-site noise assessment. This assessment will determine if a hearing test is required and if other controls need to be used in that area.



Indoor Air Quality (IAQ) Hazards

IAQ deals with the content of interior air that could affect the health and comfort of building occupants. The IAQ may be compromised by microbial contaminants (mold, bacteria), chemicals (such as carbon monoxide, radon), allergens, or any particulate or environmental stressor that can induce health effects.

If you are concerned about poor Indoor Air Quality at your workstation please see the [SRS Website](#) for more details on how to proceed.

Scents in the Workplace

Exposure to scented products can adversely affect a person's health. In high concentrations, scented products may trigger a negative responses for those with allergies or chemical sensitivities. Dealing with a scent situation can be a sensitive undertaking. There is a delicate balance between expressing your concern to the individual and appearing to be confrontational.

Scent situations can be brought to the attention of your supervisor, or Botany Safety Committee. See the [SRS Website](#) for more information.

Botany Element 13: Contractor Safety

Any contractors working in Botany must perform their work in a safe manner, and that it is in compliance with WorkSafeBC Occupational Health and Safety Regulations, any other applicable provincial and/or federal laws and/or regulations, and any UBC policies, procedures and other requirements that may apply. See Appendix 14 for more details.

Botany Element 14: Program Review

To ensure the overall success of a Health and Safety Program (HSP) a system for evaluation must be in place. Botany will review and evaluate our HSP is to determine and implement changes needed to continually improve all elements health and safety in the workplace annually. See Appendix 15 for details





Appendices -Full documentation of the SRS Template Safety Plan

Appendix 1: Documented Health and Safety Program

Regulatory Compliance

The Occupational Health and Safety Regulation ([OHSR](#)) requires that an employer with a workforce of 20 or more workers have an Occupational Health and Safety Program that includes the following:

- (a) A statement of the employer's aims and the responsibilities of the employer, supervisors and workers.
- (b) Provision for the regular workplace inspection to ensure that prompt action is undertaken to correct any hazardous conditions found.
- (c) Appropriate written instructions, available for reference by all workers.
- (d) Provision for holding periodic management meetings for the purpose of reviewing health and safety activities and incident trends, and for the determination of necessary courses of action,
- (e) Provision for the prompt investigation of incidents to determine the action necessary to prevent their recurrence.
- (f) The maintenance of records and statistics, including reports of inspections and incident investigations, with provision for making this information available to the joint committee or worker health and safety representative, as applicable.
- (g) Provision by the employer for the instruction and supervision of workers in the safe performance of their work.

Use of this Manual Template

This template will assist Administrative Heads of Unit develop their Health and Safety Program. Once completed, the documented program must be available to all unit personnel. The manual must be reviewed annually to ensure regulatory requirements are up to date.

This template provides all the necessary content to ensure your unit has all the elements of a functional health and safety program. Throughout the document there is unit specific information, demarcated in **[red font]**, that you are expected to fill in. You are encouraged to provide additional information to enhance your health and safety program. However, a health and safety program manual that has had modifications made to it, must be sent to safety.programs@riskmanagement.ubc.ca for review.

This document will assist university administrative units achieve the intended outcomes of the University's Occupational Health and Safety (OH&S) management system. Consistent with University [Policy SC1- Occupational and Research Health and Safety](#), the intended outcomes of an OH&S management system include:



- (a) continual improvement of OH&S performance;
- (b) fulfilment of legal requirements and other requirements;
- (c) achievement of OH&S objectives.

If there are any questions regarding the development of your Unit's Health and Safety Program manual, please contact the Safety & Risk Services (SRS) Safety Program Advisor at 604-822-6513



Appendix 2 Element 1: Health and Safety Policy

The University of British Columbia (UBC) is committed to providing a safe, healthy, secure and environmentally friendly workplace and learning environment for its employees and students. An effective Health and Safety Program that follows the continuous improvement cycle of Plan, Do, Check and Act will foster a positive culture into the working and learning experience at UBC. Through cooperative efforts of workers, supervisors and management within the Department of Botany, we will be able to carry out the objectives of [Policy SC1: Occupational and Research Health and Safety](#) and provide a collaborative working environment that will strengthen our commitment to the University's overall safety culture.

POLICY SC1: OCCUPATIONAL AND RESEARCH HEALTH AND SAFETY

General Policy

UBC aims to eliminate unnecessary risks, injuries, and occupational diseases, from UBC's workplace, teaching, and research environments.

UBC accepts Applicable Standards as minimum standards and may establish and enforce more stringent standards, as it deems appropriate for UBC Members.

Each UBC Member who engages in or is responsible for a UBC Activity involving Hazardous Materials and

Wastes must:

- Comply with this Policy and the Procedures;
- Understand the Occupational Health and Safety Program, the Biosafety Program, the Radiation Safety Program, and the Chemical Safety Program, prior to carrying out or supervising any UBC Activities; and
- Procure, handle, store, transport, and dispose of Hazardous Materials and Wastes in a manner that harms neither the environment nor living beings.

Each UBC Member engaged in UBC Activities involving, or potentially involving, Hazardous Materials and Wastes should endeavor to:

- Substitute less harmful materials for those that are known to be Hazardous Materials and Wastes prior to the time of acquisition; and
- Acquire or purchase Hazardous Materials and Wastes in sufficiently small quantities to minimize the period of storage at or by UBC.

Sincerely,

Dr. Lacey Samuels, Botany Head (July 1, 2021)



Appendix 3 Element 2: Roles, Responsibilities and Accountability

UBC EXECUTIVE

"UBC Executive" means: UBC's senior leadership team consisting of UBC's President, Deputy Vice Chancellor, Vice-Presidents, Provosts, and University Counsel.

The UBC Board of Governors has delegated to the UBC Executive the following occupational health and safety responsibilities of an employer under the Workers Compensation Act, to:

- ensure the health and safety of UBC Members engaging in UBC Activities in the workplace, research, and teaching environments at or of UBC;
- provide adequate orientation and training to Supervisors and other UBC Members, to ensure that they are made aware of:
 - all known or reasonably foreseeable health or safety hazards related to Hazardous Materials and Wastes;
 - compliance with Applicable Standards; and
 - their individual rights and duties as per [Policy SC1](#)
- establish as appropriate the Occupational Health and Safety Program, the Biosafety Program, the Chemical Safety Program, the Radiation Safety Program, and Emergency Procedures, to:
 - support Supervisors in the implementation of effective health and safety programs;
 - provide adequate information, instruction, training, and orientation to Supervisors and other UBC Members;
 - regularly inspect its workplace, teaching, and research environments, and take action, as required, to improve or address unsafe conditions or conduct when reported;
 - initiate an immediate investigation into incidents/accidents/conduct through the procedures established for the area in which the incident/accident/conduct has occurred;
 - communicate with the UBC community or affected groups about events or situations when potentially harmful conditions or conduct arise or are discovered;
 - ensure that workplace teaching, and research health and safety considerations and resources form an integral part of the design, construction, purchase, and maintenance of all buildings, equipment and work processes, including the physical planning for the future research, teaching, and operational needs of UBC, so that design elements are included to address health and safety issues (e.g., ergonomics), handling, storage, transportation, emissions, and disposal of Hazardous Materials and Wastes;
 - ensure that the physical space or facilities being used in UBC's workplace, teaching, and research environments are appropriate for the nature of the UBC Activities being carried out in them;
 - provide access to appropriate first aid and first aid facilities;
 - comply with Applicable Standards; and
 - establish Local Safety Teams to support the Joint Occupational Health and Safety Committees.



ADMINISTRATIVE HEADS OF UNITS

"Administrative Head of Unit" means: a Director of a service unit; a Head of an academic department or unit; a Director of a centre, institute or school; a Principal of a college; a Dean; an Associate Vice President or the equivalent; the Registrar; the University Librarian; a Provost; a Vice Principal, a Vice President or the equivalent, not otherwise identified as a member of the UBC Executive.

Each Administrative Head of Unit, acting under the authority of their respective UBC Executive and through their Supervisors, must:

- share in the accountability for addressing non-compliance with the Policy and the Occupational Health and Safety Program, as applicable, by UBC Members involved in UBC Activities under their Area of Responsibility; and
- cooperate with both Safety & Risk Services and the Office of Research Services, as applicable, with any workplace, teaching, and research health and safety audit, and any inspection or investigation involving their Supervisor(s) conducted in accordance with the Occupational Health and Safety Program.

SAFETY & RISK SERVICES

Safety & Risk Services is the department responsible for monitoring and implementing the requirements of the Workers Compensation Act and its applicable occupational health and safety regulations, the Occupational Health and Safety Program, the Emergency Procedures, and the Applicable Standards by:

- acting as a central resource and auditor of Policy SC1 and Procedures, and Emergency Procedures;
- reporting any substantive Research related issues of non-compliance with Policy SC1 or associated procedures to the Office of Research Services;
- reporting any existing issue or concern identified starting with the Local Safety Team or the Joint Occupational Health and Safety Committees, Administrative Heads of Unit, through to the Responsible Executive(s), and, as necessary and required, ultimately up to the UBC Executive, as part of their duties under the Occupational Health and Safety Program and in accordance with the Workers Compensation Act; and
- attending meetings of and reporting to the Responsible Executive(s), as required by the UBC Executives.

Note: In some areas, Local Safety Experts assist administrative heads of units in meeting their safety obligations.



SUPERVISORS

"Supervisor" means: a person who manages, instructs, directs, or controls other UBC Members in the performance of their duties at UBC (including studying), and may include Biosafety Permit Holders, Radiation Safety Permit Holders, and Principal Investigators. This includes graduate students mentoring undergraduate researchers, and teaching assistants supervising undergraduates in teaching laboratories.

Each Supervisors is responsible under the Applicable Standards for their Area of Responsibility and must:

- be accountable for the health and safety of UBC Members under their direct supervision and acting in their UBC capacity when engaged in UBC Activities;
- be aware of Applicable Standards and all known or reasonably foreseeable health and safety hazards pertinent to the Areas of Responsibility where such UBC Members conduct UBC Activities;
- formulate and document specific safety rules, guidelines, and procedures for all Areas of Responsibility under their supervision;
- ensure that the Emergency Procedures are in place to mitigate any hazards specific to their Areas of Responsibility, and understand, follow, and communicate to UBC Members under their supervision about Emergency Procedures;
- remove or mitigate unique hazards associated with UBC Activities under their supervision with consultation from the applicable Local Safety Team and/or Joint Occupational Health and Safety Committee;
- provide workplace orientation and training in the safe operation of equipment, handling of Hazardous Materials and Wastes, and performance of day-to-day tasks;
- conduct regular inspections to identify hazardous conditions or conduct and ensure that equipment and materials are properly handled, stored, and maintained;
- promptly mitigate or correct unsafe work practices, conduct, or hazardous conditions;
- ensure all accidents, incidents, or personal security concerns are investigated within two (2) work days;
- promptly report any accidents, incidents, or conduct to the appropriate UBC authority and Safety & Risk Services; and
- consult and cooperate with the appropriate Local Safety Team, Joint Occupational Health and Safety Committee, and/or safety representative(s) for the workplace



FACULTY AND STAFF

“Faculty and Staff” includes: any full-time or part-time staff, faculty, adjunct or clinical faculty, post-doctoral fellow, paid student, visiting academic or researcher, any person holding an appointment at UBC, or any other person having a contractual obligation to adhere to UBC’s Board of Governors’ policies and procedures.

Roles and responsibilities include:

- comply with Applicable Standards and any rules, restrictions, guidelines, or directives established by their Supervisor, Safety & Risk Services, or the Office of Research Services;
- be safety-conscious in all UBC Activities;
- take all reasonable and necessary precautions to ensure their own safety and the safety of others around them;
- be familiar with the procedure to refuse unsafe work provided for under such Act, if a UBC Member applies as a [“worker”](#) under the Workers Compensation Act;
- request training when unfamiliar with a task;
- correct unsafe conduct and conditions;
- report as soon as possible any accident, injury, conduct, unsafe condition, or insecure condition to a Supervisor;
- participate in inspections and investigations at the request of UBC; and
- participate in such committee, if elected or appointed to a Joint Occupational Health and Safety Committee, or a Local Safety Team, or other such health and safety committee.

JOINT OCCUPATIONAL HEALTH AND SAFETY COMMITTEE (JOHSC) MEMBERS

"Joint Occupational Health and Safety Committees" means: the committees established by UBC in accordance with the Workers Compensation Act set out in the Occupational Health and Safety Procedures.

Roles and responsibilities include:

- Attend all monthly Committee meetings, or appoint an eligible alternate to attend.
- Participate in all activities of the Committee, and chair Sub-Committees when requested.
- Review inspections and investigations reported to the Committee, by the LSTs. Participate in inspections and investigations as requested or required.
- Recommend and advise in the development of policies and procedures for improvement of health and safety.
- Attend safety courses or seminars, which are made available to Committee members. Each Committee member is entitled to a total of 8 hours of additional training each year.
- Promote the University Safety Policy, and safety procedures of the University, in carrying out their work.
 - Be familiar with WorkSafeBC Occupational Health and Safety Regulations, the University Safety Policy, and the Committee's Terms of Reference.



LOCAL SAFETY TEAM (LST) MEMBERS = BOTANY SAFETY COMMITTEE

"Local Safety Teams" means: site or department specific occupational health and safety teams, established by UBC, to provide area-specific safety information to the relevant Joint Occupational Health and Safety Committee set out in the Occupational Health and Safety Procedures.

Roles and responsibilities include:

- Hold and /or attend regularly scheduled LST meetings, or appoint an eligible alternate to attend.
- Function within the set Terms of Reference
- Participate in the review of:
 - Reports of current accidents, incidents or illnesses/diseases
 - Remedial action taken or required by the reports of investigations and inspections
 - Other safety and health matters
- Conduct formal workplace inspections
- Assist as required in incident and or accident investigations
- Assist management in the health and safety program development
- Post and distribute meeting minutes
- Make recommendations directly to the Joint Occupational Health and Safety Committee
- Escalate safety related issues to the JOHSC where necessary
- Review and monitor the effectiveness of the unit's Health and Safety Program

RESOURCES

- [Find your JOHSC](#)
- [JOHSC Resources](#)
- [LST Resources](#)
- Unit Organizational Chart: <https://www.botany.ubc.ca/>
- Our JOHSC is Faculty of Science JOHSC
- LSTs in our area are: Botany LST (Chair Dr. Brett Couch, bcouch@mail.ubc.ca)



Appendix 4 Element 3: Faculty/Departmental Leadership Meetings

The UBC Executive has delegated an University-level Executive Safety Management Team (ESMT) that meets three times per year. This team consists of delegated Vice-Presidents that are responsible for making decisions on health and safety matters that affect faculties or departments within their portfolio or the University as a whole.

Similarly, Faculty and Departmental Units must strive to take all reasonable measures to provide a safe and healthy workplace. This requires management to be aware of issues and activities that could have an impact on health and safety in their area of responsibility. **To meet these obligations, Botany faculty will review safety at their regularly scheduled meetings that:**

- Have Health and Safety as a standing agenda item or are either solely dedicated to health and safety
- Have a designated person responsible for providing Health and Safety information. (e.g. incident reports, health and safety statistics and trends, etc.)
- Discuss and make decisions on recommendations from the JOHSC and/or LSTs
- Address questions or concerns brought directly to management
- Assign responsibilities for required action on management decisions
- Are clearly documented

Management is responsible for designating key personnel that attend both management and local level meetings to ensure relevant information and decisions are clearly communicated to faculty and staff within their portfolio.

For assistance in developing faculty/departmental leadership meetings, visit or contact Safety Program Advisor at 604-822-6513

RESOURCES

- <http://safetycommittees.ubc.ca/>
- <http://safetycommittees.ubc.ca/roles-responsibilities/>
- <http://safetycommittees.ubc.ca/johsc/johsc-toolkits/>
- Department of Botany Faculty Meetings

Appendix 5 Element 4: Hazard Identification, Risk Assessment and Safe Work Procedures

All University units shall establish, implement and maintain a process for hazard identification and risk assessment that is ongoing and proactive. The process(es) shall consider, but not be limited to:

- The type of hazard and /or changes in knowledge of hazard
- Number of workers and non-workers (students, volunteers, contractors etc.) participating in or affected by work activity
- Experience level and capability of the workers involved
- Frequency of work activity
- Relevant investigated incidents and/or emergency situations
- Recommendations as a result of an inspection or investigation
- Requirements of the Occupational Health and Safety Regulation

HOW TO DEVELOP SAFE WORK PROCEDURES

Written safe work rules and procedures are formulated to meet WorkSafeBC, UBC and, if applicable, manufacturer's requirements. Safe work procedures should be developed to eliminate or effectively control the hazards. The process for developing a written Safe Work Procedure includes the following steps that are to be completed by the supervisor:

- 1) Identify all personnel carrying out the task.
- 2) Identify the hazard(s) associated with each element of the task.
- 3) Conduct a "Risk Assessment" for the identified hazards.
- 4) Establish controls to minimize the risk.
- 5) Determine all required personal protective equipment (PPE) and include when and how it is used.
- 6) Document the findings.
- 7) Develop a "Safe Work Procedure (SWP)" to carry out the task(s). This procedure will incorporate findings from the "Risk Assessment" and identified controls.
- 8) The SWP will undergo review as per Figure 1. Where the SWP applies to work permitted by a UBC institutional compliance committee (e.g. Biosafety, Radiation Safety, Human Ethics or Animal Care), the SWP must also be reviewed and approved as part of the permissions application before implementation.

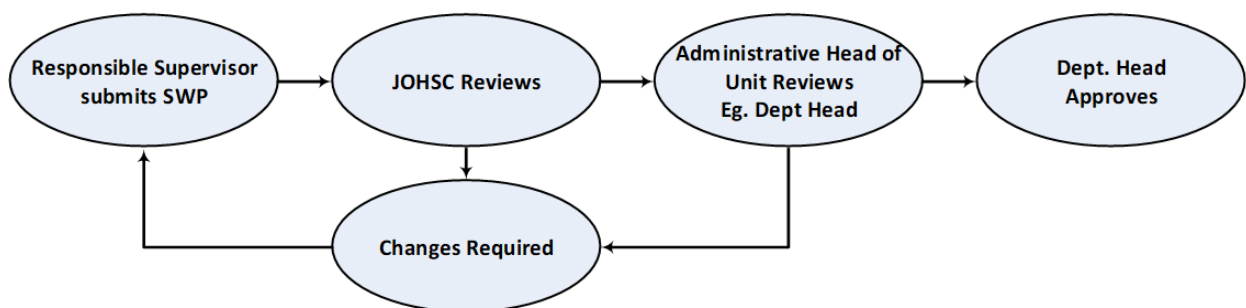


Figure 1: Safe Work Procedure Approval Process



- 9) Train all applicable workers on the approved “Safe Work Procedure” and document the training.
- 10) Ensure [documented training records are readily available](#) to indicate that the worker has been trained in the task/procedure that will be carried out.
- 11) SWP should be regularly reviewed to ensure they are current and effective

It is essential that supervisory staff engage and collaborate with workers when developing Safe Work Procedures to ensure the processes outlined are realistic and meets the demands of the task. Joint Occupational Health and Safety Committees (JOHSC) and Local Safety Teams can provide valuable insight and feedback on the procedures. Safety & Risk Services (SRS) can be contacted at any point to consult on meeting Occupational Health and Safety regulatory requirements.

Be sure to review these procedures whenever a job changes, new equipment is introduced, or workers return after being away for a long period of time. For further information on reviewing procedures, refer to the Safe Work Procedure Guidance Document.

RESOURCES

- [Botany Field Safety Procedures and Documentation](#)
- [General Risk Assessment Template](#)
- <http://safetycommittees.ubc.ca/johsc/johsc-toolkits/>
- [Risk Assessment Guidance Document](#)
- [General Safe Work Procedure Template](#)
- [General Safe Work Procedure Guidance Document](#)
- [Field Work Safe Work Procedure Template \(SRS\)](#)
- [UBC Workplace Violence Risk Assessment Tool](#)
- [Chemical Safety Risk Assessment Guide](#)
- [Chemical Safety Safe Work Procedures](#)
- [SWPs approved by UBC Biosafety Committee](#)
- [Ergonomics](#)

Identify the location of your units specific Risk Assessments and Safe Work Procedures

- <https://safety.botany.ubc.ca/>



Appendix 6 Element 5: Workplace Inspections

A critical component in proactively identifying hazards in the workplace lies in the regular performance of health and safety inspections. Structured examinations of the workplace will not only identify hazards but will help to correct identified safety issues before an injury can occur.

The Occupational Health and Safety Regulation (OHSR) states that “Every employer must ensure that regular inspections are made of all workplaces, including buildings, structures, grounds, excavations, tools, equipment, machinery and work methods and practices, at intervals that will prevent the development of unsafe working conditions.”

At UBC, a number of different types of inspections can occur:

1. LOCAL AREA SELF INSPECTIONS - Monthly Lab Safety Inspections.

What are they?

Local Area Inspections conducted in areas where the JOHSC, LST or local area supervisors have determined that more than one inspection per year must due to the tasks or environment may have an increased risk of injury. (E.g. laboratories, shops, kitchens, shipping/receiving areas etc.)

Note that areas covered by a UBC Biosafety or UBC Radiation Safety Permit must be inspected by the Permit Holder or delegated to a study team member named on a valid permit for the space. Anyone not named on valid permit or authorized to perform maintenance for the space should not enter nor inspect a biological or radiological containment zone unless escorted by a permitted study team member.*

*This applies to custodial and trades staff and extends only to the tasks that are part of their regular work.

Who participates?

Local supervisory staff of the workplace are responsible for conducting these inspections.

When are they conducted?

The frequency of local area inspections can vary depending on the risk of the activities being performed in the space. Consult with JOHSC, LST or SRS to assist in making this determination.

Note that documented inspections of permitted spaces must occur monthly.



How are they conducted?

The personnel completing the inspection are required to document the inspection (checklist) and implement a corrective action plan where the immediate supervisor of the area will be responsible for the correction. All corrective actions taken requires collaboration with supervisory staff and workers to ensure that the identified hazard has been eliminated or properly controlled. There may be site specific conditions (equipment, machinery, environmental conditions etc.) that are not included in the standard checklist, they should be amended to ensure they are regularly checked

RESOURCES:

- [General Inspection Checklist and Report Template](#) (JOHSC/LST)
- [Botany Monthly Self Inspection Checklist for Lab Users \(https://safety.botany.ubc.ca/training/ \)](https://safety.botany.ubc.ca/training/)

2. JOHSC OR LST GENERAL INSPECTIONS -ANNUAL BOTANY SAFETY COMMITTEE INSPECTION

What are they?

JOHSC/LST inspections are an examination of specified work areas and practices. Documented workplace inspections are a regulatory requirement under the Workers Compensation Act and the Occupational Health and Safety Regulation.

Who participates?

On behalf of the employer, identified or delegated faculty and staff of Joint Occupational Health and Safety Committees (JOHSC), Local Safety Teams (LST), or faculty/departmental representatives conduct regular Inspections of their workspaces. In Botany, this is the Botany Local Safety Team (LST).

When are they conducted?

The frequency of these inspections can vary depending on the location and risks associated with each specific location or area. All workspaces must be inspected at least once per year.

How are they conducted?

Personnel conducting an inspection are required to use the UBC standardized “General Inspection Checklist”. The corrective actions within the checklist are to be reviewed and discussed by the LST and the JOHSC at the next scheduled meeting.

RESOURCES:

- [JOHSC and LST General Inspection Checklist and Report](#)



3. EQUIPMENT INSPECTIONS

What are they?

Equipment inspections are independent of General Inspections and Local Area Inspections.

Equipment inspections include inspections of tools, vehicles, machinery or equipment.

They can be:

- Pre-use inspections(e.g. inspecting a vehicle or equipment prior to using it)
- Scheduled preventative maintenance inspections as per the manufacturer's manual
- A Special Inspection of equipment, machinery or work process in response to a reported condition or after a malfunction, accident or incident.

Who participates?

They are conducted by workers familiar with the tool, vehicle, machinery or equipment.

When are they conducted?

The frequency depends on the manufacturer's recommendation or industry standards for preventative maintenance. Pre-use inspections are conducted before every use.

How are they conducted?

A pre-use and/or preventative maintenance inspection checklist specific to the tool, vehicle, machine, or equipment is used. Items of deficiency are identified and documented in the corrective action report following the inspection checklist. This type of inspection aids in the development and revision of Safe Work Procedures (SWPs). Specialized equipment may require consultation from trained professionals

RESOURCES:



4. SPECIALIZED COMPLIANCE SAFETY INSPECTIONS/AUDITS

What are they?

These formal inspections are led by SRS staff to meet WorkSafeBC, Public Health Agency of Canada (PHAC), Canadian Food Inspection Agency (CFIA) and/or the Canadian Nuclear Safety Commission (CNSC) regulatory requirements. These inspections augment but do not replace local area self-inspections or JOHSC/LST inspections.

When are they conducted?

SRS may perform specialized audits or inspections in Faculties, departments or areas identified to have an increased risk of injury or require assistance to meet provincial or federal regulatory requirements. Various regulatory requirements are used as criteria for the inspection.

For research spaces that require federally regulated inspections, Safety & Risk Services will collaborate with responsible management:

- Prior to the start of a new project, to assess suitability of the space for the planned work;
- Prior to decommissioning of laboratory space due to a lab move, faculty retirement or impending renovation; and
- As a part of the ongoing monitoring required by regulatory agencies to maintain facility certifications and institution licensing. The frequency of these inspections varies from 1-5 years depending on: the risk rating of the work done, applicable regulatory requirements and compliance history.

How are they conducted?

Specialized audits is a combination of observational inspections and interviews performed by SRS safety specialists.

Identified safety concerns or gaps are presented to management and supervisory staff. Identified personnel are responsible to complete a corrective action plan and return it to SRS with timelines and task assignments completion.



Appendix 7 Element 6: Orientation and Training

Employees must be informed about potential hazards and safe work practices in the workplace.

Training and education must begin with orientation. Following orientation, training should continue through the entire period of employment. The objective of training is to raise the skill level of the worker to an acceptable standard of competency, facilitate professional growth and to ease and enable the implementation of health and safety policies into job specific practices.

SAFETY ORIENTATIONS FOR NEW AND YOUNG WORKERS

The BC Occupational Health and Safety Regulation defines a "young worker" as any worker under the age of 25. A "new worker" can be any age and includes those who are new to the workplace or location, or facing new hazards.

According to WorkSafeBC, units need to provide a workplace [orientation](#) for workers when they:

- Begin a new job
- Go to a new worksite or department
- Face new hazards, such as working with new equipment
- Perform new tasks

The following topics must be included in the young or new worker's orientation and training:

- 12) the name and contact information for the young or new worker's supervisor;
- 13) the employer's and young or new worker's rights and responsibilities including:
 - a. the reporting of unsafe conditions, and
 - b. the right to refuse to perform unsafe work;
- 14) workplace health and safety rules;
- 15) hazards to which the young or new worker may be exposed, including risks from robbery, assault or confrontation;
- 16) working alone or in isolation;
- 17) violence in the workplace;
- 18) personal protective equipment;
- 19) location of first aid facilities and means of summoning first aid and reporting illnesses and injuries;
- 20) emergency procedures;
- 21) instruction and demonstration of the young or new worker's work task or work process
- 22) the employer's health and safety program
- 23) WHMIS information requirements as applicable to the young or new worker's workplace
- 24) Contact information for the joint occupational health and safety committee



TO ADEQUATELY ORIENT AND TRAIN WORKERS, SUPERVISORS MUST ENSURE

- 1) Workplace and job-specific orientation and training is provided (by the supervisor or trainer with subject matter expertise)
- 2) UBC Mandatory Training Courses are completed
- 3) Program Specific Safety courses are completed
- 4) All orientation and training is documented

WORKPLACE SAFETY TRAINING AND EDUCATION

In order to help ensure workers can do their jobs safely, Units need to determine and then provide education and/or training necessary.

Generally, education refers to formal classroom instruction that may include lectures, discussions, and videos. Training refers to hands-on, job-specific instruction to individuals or small groups. Typically, training involves demonstrations and active participation by workers so you or a supervisor can confirm that workers fully understand safe work procedures.

UBC MANDATORY TRAINING COURSES

As a new employee, a number of courses are mandatory to meet WorkSafeBC and UBC requirements. At UBC, a worker includes, UBC Executive(s), Management, Faculty, Staff, and Student workers.

Mandatory Training for all workers is listed on the SRS website (<https://srs.ubc.ca/training/>) and includes:

- New Worker Safety Orientation – this assists in meeting the requirements outlined above.
- Preventing and Addressing Workplace Bullying and Harassment Training
- Workplace Violence Prevention Training
- Safety Supervision at UBC (for supervisors only)

Note: In addition to a general workplace safety orientation, a site- and task-specific safety orientation must also be completed for each new or transferred employee. The site specific safety orientation template can be found [here](#).

Note: Some employees at UBC do not have access to a computer and as a result, the New Worker Safety Orientation may be carried out in person within your department/building. The mandatory orientation topic list, provided above, can assist in providing a comprehensive in-person orientation.



JOB SPECIFIC TRAINING-Botany yellow folder

Each role in the workplace has assigned tasks that require training specific to that worksite. Supervisors are responsible for task assignment and assessment of the training needed to complete those tasks safely and effectively.

While this job-specific training may be delivered by the supervisor or a trainer with demonstrated subject matter expertise, the supervisor retains responsibility for oversight of training and confirmation that an adequate level of proficiency has been attained.

Signing off on an employee's training completion testifies to demonstration of trainee competency and is a legally necessary demonstration of supervisory due diligence. If a supervisor finds that an employee has not reached an adequate level of competency, further training must be done prior to sign off of the training record for that assessed requirement.

CONDUCTING JOB SPECIFIC TRAINING

The supervisor or trainer with subject matter expertise must:

- 1) Instruct the worker to read the relevant protocol/procedure for individual tasks/techniques
- 2) Ensure safety measures (hierarchy of controls) are integrated into the protocol/procedure
- 3) Demonstrate how to do the task as per the protocol/procedure and have the worker observe
- 4) Instruct the worker to perform the task while you observe them and verify that the workers' performance meets expectations for safety
- 5) Document the training

The supervisor is responsible for making their workers aware of all foreseeable hazards they may be reasonably expected to be exposed to in the course of their work.

Where a hazard is identified:

- A risk assessment may be necessary to assess the risk posed by the hazard
- Determine how to best control that risk using the hierarchy of controls
- Establish a documented procedure for working with or in proximity to the hazard
- Written procedures and training should always be provided together because:
 - Written procedures facilitate consistent training delivery
 - Training is most effective when key messages can be heard and read

Note: Where tasks involve the same hazards, use the same risk mitigation procedures and are performed in the same environment, training may be generalized across the tasks.



THIRD PARTY TRAINING

The most effective method of training for certain tasks may be through an external, third party that specializes in that field/topic.

ORIENTATION AND TRAINING RECORDS

The supervisor is primarily responsible for maintaining training records. The department can keep training records if there is an established system for maintaining these records.

It's not only good practice to maintain an education and training record for each worker, listing dates and topics covered, federal regulations require it for anyone working with hazardous substances. Reviewing the records from time to time helps ensure training requirements have been met. Annual review of these records is a federal requirement for work with regulated biological substances.

Note that the assessment of training needs pertaining to work with biological substances must be documented and available for review by federal and institutional inspectors along with proof of training completion and attainment of competency.

For detailed information about the types of records that must be kept, please refer to Element 8.

RESOURCES

- Department of Botany Safety Website <https://safety.botany.ubc.ca/>
- Training records are to be kept in the Yellow Folders provided by the department.

Appendix 8 Element 7: Reporting and Investigating Incidents/Accidents

The purpose of incident reporting and investigating is to identify factors that contributed to the incident and to implement corrective actions. This will help create a safe working environment and prevent reoccurrence of similar incidents.

An incident investigation is an analysis of an incident based on the factual information gathered of all the factors involved to determine the preventative root causes.

WORKSAFEBC REQUIRES THE FOLLOWING TYPES OF INCIDENTS TO BE INVESTIGATED





AFTER CONTACTING THE APPROPRIATE EMERGENCY SERVICES, THE FOLLOWING INCIDENTS ARE REQUIRED TO BE IMMEDIATELY REPORTED TO SAFETY & RISK SERVICES (SRS)

- A serious injury to or the death of a worker
- A major structural failure
- A major release of a hazardous substance
- A fire or explosion that had potential for serious injury
- A blasting incident causing personal injury
- A dangerous or unusual incident involving explosives
- A diving incident that causes death, injury or decompression sickness requiring treatment
- A major exposure to a pathogenic or radioactive substance

During work hours, 8:00am – 4:30pm Monday- Friday at 604-822-2029. After work hours, contact Campus Security at 604-822-2222 and the call will be forwarded to SRS’ 24/7 on-call personnel.

Note: Upon notification, SRS will immediately notify WorkSafeBC of the incident

WHEN AN INCIDENT OCCURS THAT REQUIRES INVESTIGATION, THERE ARE TWO TYPES OF INVESTIGATIONS

Preliminary Investigation (within 48 hours)	Full Investigation (within 30 days)
<ul style="list-style-type: none"> • Upon notification of the incident, ensure that the area is secured or restricted, and anyone injured has received first aid • Within 48 hours (2 days) of the incident occurring, go to the area where the incident happened and ensure the area is safe • Gather information by speaking with your worker. The UBC Incident Site Investigation Guide details the type of information you need to gather • Submit information into CAIRS within 48 hour of the incident occurrence • Document immediate corrective actions that make the area safe or restrict access, and address the direct (obvious) causes of the incident 	<ul style="list-style-type: none"> • SRS stipulates that a full investigation needs to be completed in CAIRS within 25 days of the incident occurring to meet the 30 day legal requirement <p>Full Investigations require the following:</p> <ul style="list-style-type: none"> • All details have been added to the report • Error Producing Conditions, Root causes and corrective actions with assigned timelines and personnel have been documented. <p>Preliminary Investigation = Full Investigation if:</p> <ul style="list-style-type: none"> • Details in the incident report provide a sufficient amount of information to allow corrective actions to be determined • Root causes and corrective actions with assigned timelines and personnel have been documented.



CONDUCTING AN INVESTIGATION

The [Accident/Incident Investigation Training Course](#) and [Safety Supervision at UBC](#) provides more detail information on how to conduct an investigation. The steps below provide a general overview

- 1) Manage the Accident Scene
 - Contact First Aid, Control the remaining hazards, Preserve the accident scene
- 2) Gather Information
 - Physical Data, Interview Witnesses, Document Review
- 3) Evaluate and Analyze Findings
 - Build a sequence of events that occurred before, during and after the incident
- 4) Determine Causes
 - Direct Causes (obvious, can be seen and sensed), Root Causes (obtained by asking “Why?”)
- 5) Corrective Actions
 - Corrective actions should be SMART (Specific, Measureable, Actionable, Realistic, Timely)
- 6) Complete Documentation
 - File a [CAIRS](#) report with all the information obtained from the previous steps
- 7) Follow up
 - Ensure corrective actions are complete and are not creating new hazards

SUPERVISOR RESPONSIBILITY:

It is the responsibility of the supervisor to investigate an incident that has occur in their area. Subject matter experts and workers familiar with the associated work are available to assist as required.

- 6) Educate all workers under their supervision to report all incidents that have occurred in the workplace
- 7) In the event of an injury, all workers are aware of how to access first aid by contacting 2-4444 (Point Grey Campus only)
- 8) Completing an incident report in [CAIRS \(https://www.cairs.ubc.ca/public_page.php\)](https://www.cairs.ubc.ca/public_page.php)
- 9) Informing injured workers to initiate a WorkSafeBC claim by calling 1-888-967-5377 if they have seen a doctor or missed any time from work beyond the date of the incident
- 10) Ensuring corrective actions are implemented and effective

IMPORTANT: The Worker and Supervisor are able to submit an incident report in [CAIRS](#)

NOTE: Incidents involving exposure to or theft of biological or radiological substances must also be reported immediately and directly to the appropriate UBC Compliance Committee by calling 604.822. 4353 or 604.827.5111.



CENTRALIZED ACCIDENT/INCIDENT REPORTING SYSTEM

The [Centralized Accident/Incident Reporting System \(CAIRS\)](#) is used to:

- Report incidents
- Obtain required information to initiate a WorkSafeBC claim for work-related injuries/illnesses
- Document incident investigations

RESOURCES

- [Accident/Incident Reporting Program](#)
- [UBC Incident Site Investigation Guide](#)



Appendix 9 Element 8: Documentation, Records and Statistics

It is the Administrative Head of Unit's responsibility to ensure proper record keeping and statistics are kept for the prevention of injuries and illnesses in their area of responsibility. This will assist employers, managers, supervisors, and JOHSC members:

- Identify the nature, extent, and cause of health and safety hazards
- Set prevention activities
- Determine if control measures are working

Good record keeping is essential. In order for occupational health and safety information to be useful, it must be reliable and accurate.

UNIT REQUIREMENTS

Units are required to keep the following safety records:

B) **Safety Orientation and Training Records**, including:

- **Mandatory and Program-Specific Training**
 - Maintain SRS Course certificates for mandatory and program specific courses
 - Maintain completed safety orientation documents – such as online New Worker Orientation
 - Note: Training certificates do not always have to be printed out but they should be readily accessible when needed
- **Site Specific Orientation Records** – ideally, Part 2 of the New Worker Orientation
- **Job Specific Training when hazards are present**
 - Training delivery and verification of competency must always be documented where there is a potential for worker exposure. Job Specific training records provide a legal record that workers have been trained to competently recognize and deal with hazards as outlined in the procedures.
 - Note: [A Task Specific Training Documentation Template](#) is available to guide you in the documentation of staff training assessments and completion.
- **Third Party Training**
 - Some procedural training is best provided by a specialist (3rd party) for that topic. If the training is provided by a 3rd party:
 - The training must be adequately specific for the job tasks performed
 - Attendance must be documented and a course syllabus kept as proof of training
 - Create a log indicating the name of the trainer, trainee, date of training, and name of third party course/training session.



C) **Additional Safety-Related Records**, including:

- Risk Assessments
- Meeting minutes and crew talks where health and safety issues were discussed and noted
- Local Safety Team and JOHSC meeting minutes
- Inspection reports and records of actions taken to solve problems or for continual improvement
- Equipment log books and maintenance records
- Incident Investigations - automatically stored in CAIRS
- Statistics on the frequency, severity of accidents, type of injuries, etc.
- Supervisors' notes and logs of health and safety contacts with workers
- Records showing the use of progressive discipline to enforce health and safety rules
- Building Emergency Response Plan (should be updated annually or as necessary)
- Sampling and monitoring records of exposures to harmful substances
- Inventory records and federal permissions pertaining to hazardous materials
- Noise exposure measurement records and hearing tests
- Other documents applicable to the type of work (e.g. confined space permits)

Units should strive to generate statistics in order to develop and implement safety initiatives in their workplace.

Incident/Accident records are a good source for identifying trends in the workplace. The UBC Centralized Accident/Incident Reporting System ([CAIRS](#)) database allows administrators access to retrieve relevant statistics. To learn how to obtain access, click [here](#).



Appendix 10 Element 9: Joint Occupational Health and Safety Committee (JOHSC) and Local Safety Team (LST)

A JOHSC is made up of worker and employer representatives working together to identify and resolve health and safety problems in the workplace. They are mandated to advise, assist, and make recommendations to improve occupational health, safety, and personal security within UBC's workplace environments. To be successful, the committee must meet at least once per month, operate in an atmosphere of cooperation and be effective in promoting and monitoring a sound occupational health and safety program.

The committee's role (through various activities) in the workplace includes:

- a) Promoting safe work practices
- b) Assisting in creating a safe and healthy workplace
- c) Recommending actions which will improve the effectiveness of the occupational health and safety program, and
- d) Promoting compliance with the WCA and the Occupational Health and Safety Regulation (OHSR).
- e) Participating in inspections and incident investigations

For more information about the JOHSC, refer to the [JOHSC Reference Manual](#)

Our JOHSC is Faculty of Science

Their minutes can be found here: <https://science.ubc.ca/safety> (SRS [Safety Committees Website](#))

LSTs in our area are: Botany LST

RESOURCES

The following Resources can be found on the [Safety Committees Website](#)

- Information pertaining to each JOHSC
- JOHSC Terms of Reference Template
- JOHSC Meeting Agenda Template
- JOHSC Minutes Template



LOCAL SAFETY TEAM

A Local Safety Team (LST) is a dedicated safety advisory group for a building department or area that assists the JOHSC in assisting occupational health and safety initiatives in workplaces across the University. The LST has a mandate to advise, assist and make recommendations to Heads of Units and the correlated JOHSC to improve health, safety and the personal security for all faculty and staff.

Each Faculty/Department has a variety of work groups and workplaces within its portfolio which have a diverse set of functions and related hazard potential. It is felt that one JOHSC within the Department would be overwhelmed in this diverse workplace, so the decision has been taken to organize and implement LSTs to provide site specific safety information to JOHSCs.

The role of the LST is to:

- Assist local supervisory staff Identify hazards in the workplace
- Participate in, discuss, and review investigations within their work area.
- Conduct, discuss and review workplace inspections.
- Collaborate with JOHSC in the development of health and safety initiatives
- Recommend actions that will improve the effectiveness of the Health and Safety Program
- Educate and promote WorkSafeBC regulatory requirements to faculty and staff in their area
- Identify and escalate items beyond their local scope of control to the JOHSC

WHY SHOULD AN LST BE ASSEMBLED?

- The JOHSC membership is unable to perform inspections for all their areas of responsibility
- The members of the JOHSC are unable to participate in incident investigations for all areas in their area of responsibility
- There are geographical constraints that would limit the effectiveness of the JOHSC (e.g. Off-campus facilities)
- There is an increased safety risk in the day-to-day work activities in a given area that requires local expertise and oversight. (e.g. Theatres, gardens, farms etc.)

RESOURCES

- The following Resources can be found on the [Safety Committees Website](#)
 - [LST Terms of Reference](#)
 - [LST Meeting Agenda Template](#)
 - [LST Meeting Minutes Template](#)
 - [LST General Inspection and Report Template](#)



Appendix 11 Element 10: Emergency Procedures and First Aid

The purpose of first aid and emergency services are to:

- Ensure prompt and effective emergency response
- Minimize the effects of injuries/exposures and promote speedy recovery
- Provide workers with assistance when required

UNIT REQUIREMENTS FOR EMERGENCIES

- 1) Units must understand how to provide employees with a quick and effective response in the event of injuries or emergencies.
- 2) Supervisors are required to communicate emergency numbers and procedures to workers during orientation and to regularly review this information during staff meetings. Annual emergency and evacuation drills shall be practiced to ensure awareness and effectiveness of emergency routes and procedures. The success of the First Aid and Emergency Service Programs depends on employees knowing what to do in emergency situations, both major and minor.
- 3) The risks associated with the Unit's work process and related control measures must be communicated with employees and understood.
- 4) All training, meetings and drills shall be documented to meet due diligence requirements.
- 5) Management will provide all tools and resources required for these programs to be effective. These include:
 - Appropriate emergency response plans and equipment
 - Education and training of Unit
 - Time made available to allow key personnel to complete their duties
 - Established chain of command for emergency situations.

BUILDING EMERGENCY RESPONSE PLANS AND PROCEDURES

The Unit has a current completed [Building Emergency Response Plan](#) that details plans and procedures for situations where emergencies could arise. These plans and procedures deal with fire prevention, emergency evacuation, personal security, earthquake and bomb threats.

Depending on the nature of the emergency, response will be provided by Vancouver Fire and Rescue Services, the local detachment of the RCMP, Campus Security and/or SRS.

The UBC Building Emergency Response Plan must be completed for each UBC Building



UNIT REQUIREMENTS FOR FIRST AID

University “2-4444” Central First Aid System

The UBC Occupational First Aid program will provide first aid coverage for all Faculty, Staff, and Paid/Practicum Students for the UBC Point Grey Campus, 24 hours a day.

Faculty, Staff and Paid/Practicum Students can call 604-822-4444 (or 2-4444 on a campus phone) which will summon trained first aid attendants, to the location of the injured person.

The First Aid attendants will:

- Promptly provide first aid at a level of care within the scope of their first aid training.
- Objectively record observed or reported signs and symptoms of injuries and illnesses in the first aid record
- Refer workers with injuries and illnesses beyond the scope of their training to medical attention
- Arrange for transport of a worker to medical aid, as required (Attendants can decide whether an injury requires rapid transport, or to transport to UBC Hospital or clinics on campus via first aid vehicle)

In the event of a medical emergency all Faculty, Staff and Paid/Practicum Students should first call 911 and then first aid at 604-822-4444. This will ensure the quickest response for assistance.

Supervisors must ensure that signs clearly indicating the location of, and how to call for, first aid are posted conspicuously throughout the workplace, and communicated to the workers in the Unit.

FIRST AID AT OFF CAMPUS LOCATIONS

Supervisory staff are required to educate Faculty, Staff and Paid/Practicum Students under their responsibility when and how to summon first aid at their location.



AUTOMATED EXTERNAL DEFIBRILLATORS (AEDS)

AEDs have been installed in a variety of UBC buildings to provide quick response in the event of a cardiac arrest where an individual has fainted, a pulse is not detected the person is not breathing⁴.. The defibrillator provides quick access to help and can increase the chance of saving someone's life. You can download a list of [UBC Vancouver Buildings with AEDs](#).

Using a defibrillator is safe and straightforward, and its light weight means it can be carried to where it is needed. Once activated, the device provides easy-to-follow voice instructions and automatically determines if someone requires a life-saving shock. Defibrillators cannot do harm, and will only deliver a live-saving shock if it is required in the case of cardiac arrest. It will not shock someone accidentally. When an AED is used, a CAIRS report must be completed and you must contact Campus Security who will retrieve the used AED and replace it with a temporary unit.

RESOURCES

- First Aid Poster ([UBC Vancouver Occupational First Aid Poster](#))
- [AED Locations at UBC Vancouver](#) ([General AED Information](#))
- Building Emergency Response Plan ([Sample Template](#))

⁴ The Mayo Clinic <https://www.mayoclinic.org/diseases-conditions/heart-arrhythmia/in-depth/automated-external-defibrillators/art-20043909>



Appendix 12 Element 11: Hazardous Materials Management

BIOLOGICAL SAFETY

Biosafety is the containment principles, technologies and practices that are implemented to prevent unintentional exposure to biological material and toxins, or their accidental release. The primary objective of the UBC Biological Safety Program is to facilitate and ensure the safe and knowledgeable use of biological materials in research, teaching and the environment. Additionally, the Biosafety Program supports the containment practices for genetically modified organisms, environmental pests/insects, and invasive species

Approval for research projects using biological substances must be sought, in the form of a biosafety permit application, from the University Biosafety Committee for review prior to release of funding. Once approved, a UBC Biosafety Permit is issued by the UBC Biosafety Committee through the UBC Research Information System ([RISe](#)). The Permit, which states the allowable biological substances, methods and spaces where they may be used and stored, must be posted in each room listed on the permit. Only study team members listed in the permit application are authorized to do the work described in the permit.

The Biosafety Office acts as a resource on issues of biosafety, including pathogen & toxin acquisition, training, laboratory design and equipment selection. Specialized, mandatory training is offered for permit holders, study team members and people shipping or receiving infectious materials. Specialized inspections of permitted spaces are done as necessary to maintain facility certifications, obtain importation permissions and keep permits in good standing.

CHEMICAL SAFETY

The Chemical Safety Program promotes the recognition, evaluation and control of chemical hazards that may cause illness, impaired health or significant discomfort to UBC faculty, staff and students.

The Chemical Safety Program incorporates the entire lifecycle of the chemical beginning with purchasing and ending with disposal. The aim is to ensure faculty and staff are properly informed on the use and handling of chemicals that are capable of causing injury, illness, disease, fire, explosions or property damage.



RADIATION SAFETY

Radiation Safety is the protection of people and the environment from the harmful effects of ionizing radiation. The primary objective of the UBC Radiation Safety Program is facilitate and ensure the safe, knowledgeable and legal use of radiation sources and devices in research and teaching.

All research projects using radioactive substances and/or radiation devices must be submitted to the University Radiation Safety Committee for review prior to release of funding to verify that the work planned is compliant with the terms of UBC's CNSC licensing. Once approved, a UBC Radiation Permit is issued by the Committee through [RISe](#). The Permit, which will state the types and amounts of radiolabeled compounds and radiation devices as well as the spaces where they may be used and stored, must be posted in each room listed on the permit. Only study team members listed on an approved permit are authorized to work with radiation as described in the permit.

The Radiation Safety Office acts as a resource on issues of radiation protection, including radiation acquisition, handling and disposal, training, laboratory design and equipment selection. Specialized training is offered for authorized users of open source and sealed substances. The Radiation Safety Training course provides an introduction to the safe handling of radioactive sources and is mandatory for all faculty, staff and students prior to commencing work with radioactive materials.

Specialized inspections are done of permitted spaces as necessary to maintain institutional licensing, obtain importation permissions and keep permits in good standing.

RESOURCES

- [Policy SC1](#)
- SRS Website ([Biological Safety](#))
- [Biological Safety Manual](#)
- SRS Website ([Chemical Safety](#))
- [WHMIS Information and Training](#)
- [Chemical Safety Manual](#)
- [Spill Clean Up Procedure](#)
- [SDS Database](#)
- SRS Website ([Radiation Safety](#))
- [Radiation Safety Manual](#)



Appendix 13 Element 12: Occupational Hygiene

DEFINITION AND PURPOSE

Occupational Hygiene promotes a safe a healthy environment by providing information and advice on prevention of ill health from work activities.

OCCUPATIONAL HAZARDS

A hazard is anything in the workplace that poses a risk to buildings, machinery/equipment, or individuals. The following items are occupational hazards that can be found in many workplaces.

Hygiene Hazards

A hygiene hazard is anything that could cause adverse health effects. Most hygiene hazards can be categorized as physical, biological, or chemical hazards.

Hazard Type	Source
Physical	noise, light, temperature, and radiation
Biological	micro organisms, toxins and animal allergens
Chemical	acidic, basic, and organic vapors in the interior air

To determine if a hygiene hazard can result in adverse health effects, monitoring needs to be carried out through either personal sampling or area sampling using specialized equipment. The results from all monitoring are compared to WorkSafeBC regulations or other applicable standards to ensure compliance. If compliance is not achieved then the necessary controls need to be implemented. See the [SRS website](#) for further information.

Noise Hazards

Noise levels greater than 85 decibels, averaged over eight hours, can damage hearing. If anyone is exposed to this level of noise, controls must be implemented to mitigate the risk of hearing damage.

Nuisance noise is noise that does not cause hearing loss, but may have a psychological effect and impact employee performance. Due to its effect on employees, it should be minimized where possible and should be managed at a local level.

As with any exposure, the hierarchy of controls should be used when controlling for noise exposure. See [Noise Hazards](#) for further information.

If you are concerned that noise in your workplace exceeds 85 dBA, contact the [Occupational Hygienist](#) to arrange an on-site noise assessment. This assessment will determine if a hearing test is required and if other controls need to be used in that area.



Indoor Air Quality (IAQ) Hazards

IAQ deals with the content of interior air that could affect the health and comfort of building occupants. The IAQ may be compromised by microbial contaminants (mold, bacteria), chemicals (such as carbon monoxide, radon), allergens, or any particulate or environmental stressor that can induce health effects.

If you are concerned about poor Indoor Air Quality at your workstation please see the [SRS Website](#) for more details on how to proceed.

Scents in the Workplace

Exposure to scented products can adversely affect a person's health. In high concentrations, scented products may trigger a negative responses for those with allergies or chemical sensitivities. Dealing with a scent situation can be a sensitive undertaking. There is a delicate balance between expressing your concern to the individual and appearing to be confrontational.

Scent situations can be brought to the attention of your supervisor, Joint Occupational Health and Safety Committee (JOHSC) representative and/or Local Safety Team (if available). See the [SRS Website](#) for more information.

Respirators

Respirators must be fitted to the individual, which ensures the respirator fits properly on the face. Respirator fit is affected by scarring, dental work, surgery, weight loss, facial hair. A respirator fit testing session will ensure individuals are competent at putting on their respirator.

Respirator fit testing is required prior to the first use of your respirator and annually thereafter, as required by WorkSafeBC regulations. For more information on respirators and fit testing, see the [SRS Website](#).



Appendix 14 Element 13: Contractor Safety

It is the intent of UBC to provide a safe, healthy and secure environment for all members of its faculty, staff, students and visitors. As a contractor, it is your responsibility to ensure that project work is performed in a safe manner, and that it is in compliance with WorkSafeBC Occupational Health and Safety Regulations, any other applicable provincial and/or federal laws and/or regulations, and any UBC policies, procedures and other requirements that may apply.

The University expectations are that contractors will train, supervise, and direct their employees to be mindful of the safety of UBC's students, faculty, employees, neighbors and property, when performing work on UBC's premises. The manual below does not address, and is not intended to abrogate or assume responsibility for the contractor's duty to its employees. Nor does the manual provide an exhaustive outline of laws, ordinances or regulations governing environmental, health and safety compliance. Rather it is provided to identify specific responsibilities, communicate the availability of hazard information for university properties and to outline UBC Safety and Environmental procedure.

RESOURCES

- [Contractor Safety Manual](#)



Appendix 15 Element 14: Program Review

To ensure the overall success of a Health and Safety Program (HSP) a system for evaluation must be in place. The purpose of a reviewing and evaluating an HSP is to determine and implement changes needed to continually improve all elements health and safety in the workplace.

These evaluations/reviews are to be designed to:

- 1) Identify the strengths of the Unit's HSP
- 2) Identify areas of non-compliance (with WorkSafeBC and UBC Policy requirements)
- 3) Identify where the HSP could be further improved so as to achieve higher levels of health, safety and compliance
- 4) Assist the Unit in reducing workplace injuries and the resulting operational disruption.

Once the evaluation has been completed, identified improvements must be implemented using a standardized **Plan-Do-Check-Act** continual improvement cycle:

- 1) **Plan:** Developing an action plan based on risks and opportunities to improve the health and safety program in your area of responsibility
- 2) **Do:** Prioritize recommendations and assign accountability for implementation of plan
- 3) **Check:** Monitor and measure activities and processes with regard to health and safety objectives. Document a report of the results
- 4) **Act:** Take actions to continually improve health and safety performance to achieve the intended outcomes