

SBSAC Laboratory Code of Behavior

The undersigned has located all safety equipment in the lab and knows how to activate each piece of equipment.

The undersigned has, on the instruction of the Instructor, read and understood the following safety statements:

Working in a laboratory

- *NEVER work alone in the laboratory.*
- *Only work in the lab in the presence of an Instructor (Professor or Technician) UNLESS told otherwise by your Instructor.*
- *NEVER invent your own experiments without authorization – highly dangerous and PROHIBITED.*

Personal Protection

- *DO wear LABORatory COATS; these must be closed at the front.*
- *DO tie-back long hair, neckties flowing headwear and long hair should be confined INSIDE your Lab coat.*
- *DO keep your LAB COAT in a plastic bag when not in use, to avoid cross-contamination.*
- *ALWAYS wear safety eyewear and a lab coat when conducting experimental work in a laboratory, UNLESS told otherwise by your Instructor.*
- *DO wear natural fibers if possible; in the worst case, they burn, rather than melt – less injury is caused.*
- *DO wear laboratory gloves when advised, or when handling dangerous or caustic materials.*
- *DO tell your instructor if you have a health condition that might affect your work in the lab.*
- *DO wash your hands with soap and water before leaving the lab.*
- *NEVER wear contact lenses in the laboratory.*
- *NEVER wear open toed shoes (sandals), fabric shoes (ballet shoes / running shoes with open mesh etc.), or high-heeled shoes in the laboratory. ONLY flat soled shoes with no open spaces are acceptable.*
- *NEVER have bare legs in a laboratory – wear trousers (preferred) or long skirts and socks.*

Food, drink, makeup, cell phones

- *NEVER bring food or drink into the laboratory.*
- *NEVER eat or drink in the laboratory (not even gum, and don't chew pen tops!).*
- *NEVER apply make-up or lip balm in the lab.*
- *NEVER eat or drink ice or water from the lab as they may be contaminated.*
- *NEVER eat or drink from laboratory glassware.*
- *DO turn off cell phones and pagers during laboratory classes.*

Pregnancy

- *We wish to help students who are pregnant to ensure their safety, and the safety of their unborn child. We will work with you to help achieve this.*
- *Any student who is, or thinks that she may be, pregnant should make herself known to the Chair as soon as possible so that we can work together to ensure the safest possible environment in SBSAC during pregnancy.*
- *No student will be penalized financially because they are pregnant.*

Safe working.

- *Do arrive on time: all safety instructions specific to the experiment that is scheduled for that day are given at the beginning of the lab.*
- *DO speak only English language in the laboratory (the language of business). It is essential for safety that Instructors and fellow students understand what you are saying.*
- *DO be careful in the laboratory. Think carefully before you do anything. Think “what will I do if this goes wrong?” – Have a plan.*
- *DO tell the instructor immediately if you are injured, burned, or splashed with chemicals.*
- *DO keep your working area clean of unnecessary items.*
- *DO store coats, bags, etc. in a locker, drawer or in the cavity reserved for the lab stool.*
- *DO read the label on a bottle twice before using the contents. Also pay attention to any WHMIS and NFPA symbols.*
- *DO know the location of the MSDS sheets.*
- *DO label all reagents you are dispensing clearly before starting your work.*
- *IF chemicals do come in contact with skin or eyes, immediately flood the area with plenty of cool water (for at least 15 minutes).*
- *IF you get caustic liquids (acids, alkalis) on your clothes, take off the clothes. Wash the skin that has been exposed to the chemicals.*
- *DO lubricate the end of the glass tubing or thermometer with glycerin or water (if glycerin is not available) before inserting glass tubing or thermometers into a rubber stopper. With a towel or gloves, protect your hands and hold the glass close to the stopper. Insert the tube slowly with a twisting motion.*
- *DO wet the glass and the tubing to connect rubber tubing to a piece of glassware as in distillations or in filtration set ups . Forcing the tubing on glass without wetting will be hazardous to your hand and to the equipment.*
- *DO use a pipette bulb to draw liquids into a pipette. NEVER pipette by mouth.*
- *DO add acids or bases to water. NEVER add water to acids or bases.*
- *DO keep clear of reactions in open top containers as they may “spit” chemicals towards you.*
- *DO keep all chemicals and equipment away from the edge of the lab bench.*
- *DO inspect all glassware for cracks – throw away cracked glassware in the glass disposal bin (NOT the regular garbage). NEVER use cracked glassware – it might break.*
- *DO turn off Bunsen burners when they are not needed. NEVER leave a flame unattended.*
- *DO assume all chemicals in the laboratory are toxic.*
- *DO treat all biological cultures as potentially infectious.*
- *DO disinfect work surfaces with 70% isopropanol before and after working with biological cultures.*

- *DO minimize the production of aerosols when working with biohazardous materials. Fine mist droplets are easily inhaled. Avoid vigorous shaking or mixing of cultures. Open tubes or bottles away from you.*
- *DO put caps and stoppers back on any bottles immediately, even if another student is going to use the chemical after you. This stops caps and bottles getting mixed up and prevents contamination of the original stock material.*
- *DO use fume hoods whenever toxic or noxious gases are likely to be evolved.*
- *DO dispose of solutions and chemicals as instructed in the appropriate waste container.*
- *DO dispose of biohazardous waste in the designated autoclave bins. Decontaminate glassware by soaking in a 10% bleach bath for 10 minutes. Wash decontaminated glassware as usual.*
- *IF you pour a solution from one container (e.g. a stock bottle) into a second one (e.g. a beaker), DO label this second container immediately.*
- *DO return stock bottles and chemicals to their original location immediately after use. DO take only the amount that is needed.*
- *DO follow zero waste policy. Waste costs a lot. And damages our environment. To work towards “zero waste” each student should dispense only what you are going to use. Companies prefer workers who are thoughtful and who work towards “zero waste”.*
- *NEVER start working until safety issues have been discussed and safety training has been completed.*
- *NEVER leave bags on the floor where they may cause someone to trip.*
- *NEVER keep coats, bags, etc. in the working area.*
- *NEVER put unused chemicals back in the original stock container.*
- *NEVER begin work until you are told to do so by an Instructor.*
- *NEVER place chemicals directly on a balance pan. Use a weighing boat, weighing paper or other things as directed by your Instructor.*
- *NEVER taste or smell reagents.*
- *NEVER allow chemicals to contact with eyes or skin.*

Accidents and Injuries

- *DO report all accidents or injuries to the Instructor. An Accident Report form will then be completed.*
- *NEVER pick up broken glass by hand. DO use dust pans, brooms and brushes which are available in the area. Place broken glass in the special containers provided and labelled "Broken Glass Only". Placing broken glass in a regular waste container places all technicians and custodial staff at risk of being injured or worse. Contact your instructor for disposal of broken contaminated glassware.*
- *Each laboratory is equipped with a First Aid Kit which contains bandages and non-latex and powder free gloves (bandages are not for paper cuts). ALWAYS wear nitrile gloves when helping with any open wound.*
- *IF you spill caustic liquids (acids / alkalis) on your clothing, remove the clothing **at once** and wash the skin beneath with flowing water for at least 10 minutes. Don't be modest, don't be shy, if necessary REMOVE ALL CLOTHING ! It is more important to keep your skin than to be afraid of showing it.*
- *CONTAIN spills of biohazardous cultures by covering the spill with paper toweling. Flood the area from outside to inside with disinfectant (such as 70% isopropanol) and let soak for*

10 minutes. Clean up with fresh toweling. Dispose of paper toweling in the autoclave waste bins.

- **IMMEDIATE ACTIONS: If an injury does occur then:**
 - **Chemicals on skin: Flush the skin with cool water for at least 15 minutes.**
 - **Chemicals in Eyes: Flush your eyes with water at an eyewash station for at least 15 minutes.**
 - **Skin Burns: Immediately place the burn under cold running tap water for 5 to 10 minutes to remove the heat or irritant.**
 - **Hair or Clothing Fires: To extinguish the flames use the fire blanket: Wrap, Drop, Roll.**
 - **Biohazard contamination: if any possible biohazard contamination has occurred or is suspected, notify the instructor, take necessary actions to contain the contamination and treat yourself appropriately:**
 - **Absorbtion-immediately wash affected area with soap and water**
 - **Inhalation, Ingestion, Injection: notify your instructor .**

TELL THE INSTRUCTOR !

If it is a serious injury, inform Security to call an ambulance to provide First Aid.

Fires

- *Small fires are the responsibility of the Instructor.*
- *Turn off the burner if the burner was the cause of the fire.*
- *To keep a fire contained in a beaker, cover it with a watch glass or invert a larger beaker overtop. Do not use a fire extinguisher unless the fire is large, in which case the Instructor will direct students to evacuate the room immediately according to the following procedures:*
 - *Direct students to leave the building.*
 - *If possible shut down all equipment in the laboratory and close all doors.*
 - *Activate the fire alarm in the hallway (this automatically alerts security, who will call the fire department).*

Chemical and Biological Wastes

- (1) *At the beginning of each laboratory session, special instructions will be given for waste disposal. Never pour organic solvents or toxic wastes such as solutions containing chromium, mercury, or lead into a sink. Proper disposal containers will be designated.*
- (2) *Biohazardous waste and contaminated disposable items must be placed in the designated autoclave bins. Never place contaminated materials in the regular garbage. Non-disposal items such as glassware and equipment must be decontaminated with an appropriate disinfectant.*

Keeping the Laboratory Clean and Tidy

- *Students are responsible for cleaning any equipment used in an experiment, tidying up their work area and returning all equipment to its proper place.*
- *Faculty and Technicians may assign additional cleaning duties, but students should also follow these practices below:*
 - *Before storing away, clean all equipment and remove labels. Detergent solution is provided at the large sinks.*
 - *Clean and return all special equipment to its designated area.*
 - *Glassware must be cleaned as stated by the Instructor.*
 - *Remove all ink and tape from glassware before putting away.*
 - *To clean bench tops and spills use paper towels. Special note: neutralize acid spills with the solid sodium bicarbonate before flushing the area with water and sponging.*
 - *Contain spills of biohazardous cultures by covering the spill with paper toweling. Flood the area from outside to inside with disinfectant (such as 70% isopropanol) and let soak for 10 minutes. Clean up with fresh toweling. Dispose of paper toweling in the autoclave waste bins.*
 - *Broken glass should never be picked up by hand. Use dust pans, brooms and brushes which are available in the area. Place broken glass in the special containers provided and labelled "Broken Glass Only". Placing broken glass in a regular waste container places all technicians and custodial staff at risk of being injured or worse.*
 - *Remove paper, broken glass or other debris from the sinks.*

General Emergencies

Emergency Phones – *the emergency phones are tan colored phones sited every 20 m or so around the building corridors, and there is a tan color emergency phone in each laboratory. These emergency phones connect directly to security. If you need help, or to report an emergency, pick up the phone – you will be immediately connected to security, there is no need to dial.*

The alarm system at Seneca@York has two levels of alert:

- (1) **GENERAL ALERT** – *A slowly pulsed siren (walking pace) – Security will use the building intercom system to explain the alert. For best audibility, move to a corridor / open a door to a corridor, so that you can hear the intercom. Stop all lab work, including any open flames or processes requiring observation. Use this time to prepare to evacuate the building.*
- (2) **LEAVE NOW ALERT** – *A fast pulsed siren (fast walking pace) – DO leave the building in a calm and orderly manner, NEVER go to the courtyard. DO move away from the main entrance (don't stop others from leaving. If it is cold, or raining, go to another building).*

The undersigned has read and understood the above and also understands that:

1. Laboratory Instructors must be obeyed immediately – actions can be discussed later if necessary.
2. No student will be allowed to attend a laboratory session if that student does not have a proper lab coat and safety eyewear (safety glasses / safety goggles).
3. If a student arrives at a lab without safety eyewear, and cannot secure a "loaned" pair, he/she will be asked to leave the lab. The mark for this lab will be zero. Lab reports will not be accepted from a student not attending the laboratory.
4. All laboratory projects must be performed. All laboratory sessions must be attended. Each laboratory report is due at the beginning of the laboratory session following the session in which the project was completed. The report is due at the beginning of the laboratory time so that each student can properly focus on the present, and not the past, project. A penalty of 10% per day will be imposed for late reports.
5. Any absences must be supported by a legal document within one week. The faculty must be notified immediately by phone/e-mail in the event of a missed test or lab session. This notification must occur no less than 15 minutes before the beginning of the scheduled test or lab. Any student who fails to attend more than 2 scheduled laboratory classes will not pass the course. In the event that a student misses a term test but has notified the instructor no less than 15 minutes before the beginning of the test and can provide proper documentation, the final examination mark will also be used for the missed term test.
6. No student will be allowed to perform the current laboratory project if they arrive after the pre-lab has started. This is in accordance with the Occupational Health and Safety Act (Bill 70) which states that it is the responsibility of the instructor to educate the student on the potential hazards that they will encounter and it is the responsibility of the student to be present at the time of this instruction so that they may perform the lab in a safe manner.
7. Students must have read and understood this "SBSAC Laboratory Code of Behaviour" before starting their laboratory courses.
8. Students must have completed WHMIS training before working in the laboratory.

Print Your First Name _____

Print Your Surname _____

Signature _____

Date _____

Student Number _____

Laboratory Section _____