SAINT MARY'S UNIVERSITY SINCE 1802

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CONTROL OF EXPOSURES IN TEACHING LABORATORIES
WORK INSTRUCTION #10

PREPARED BY: SAINT MARY'S UNIVERSITY			
CREATED: 08/29/2004	APPROVED: 01/27/2006	REVISED: 03/13/2014	V-22

SCOPE

1.1. Enforcement of these instructions is the responsibility of the department and the Faculty of Science offering the laboratory course.

1.2. It is the responsibility of the instructor(s) and departmental technician(s) to exercise these instructions for their respective duties.

1.3. These instructions apply to all students and employees in teaching laboratories within the Faculty of Science.

1.4. These instructions provide a means of assessing and controlling potential exposures prior to acceptance and execution of teaching laboratory experiments through review and archiving to ensure that activities in teaching labs do not result in unacceptable exposures.

HEALTH, SAFETY AND ENVIRONMENT

2.1. The health of persons can be affected from exposures via route of entry.

2.2. Solvents and volatile toxic substances may only be used in laboratories equipped with fume hoods and/or fume extractors and they shall be covered or closed when not in direct use.

2.3. All substances used in a given experiment must have their Material Safety Data Sheets (MSDS) and any protocols present in the laboratory and have been reviewed by the lab instructor prior to use.

2.4. Exposure controls and/or monitoring devices recommended by the MSDS or the manufacturer shall be present and used as required.

2.5. All substances (supplier manufactured and in-house synthesized) used must be labeled with a WHMIS supplier or workplace label, as appropriate.

2.6. Laboratory wastes shall be collected and disposed of via Work Instruction #13.

2.7. All personnel associated with the preparation, execution and receipt of instruction in teaching labs shall be WHMIS trained and provided any other relevant information or instruction as appropriate

2.8. Where an instructor is executing the laboratory but is not the individual responsible for having developed the experiment(s)/lab manual then the responsibility for completing the review lies on the latter.

2.9. Teaching laboratories may be used only for the preparation and execution of laboratory courses detailed in the Academic Calendar. A list shall be prepared and posted in each teaching laboratory of those courses booked for execution in that room per academic semester.

2.10. Any use and/or encroachment of research or extracurricular activities into teaching laboratories is strictly prohibited without the prior approval of the Dean of Science.

DEFINITIONS

3.1. Exposures may be classified as: chemical, biological and radiation (including equipment)

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3.2. For the purpose of activities set out in this instruction, the departmental technician(s) shall be recognized as those individuals normally responsible for the day-to-day maintenance and preparation of any particular teaching laboratory and/or course laboratory.
3.3. The lab instructor is the person in charge for delivering the laboratory instruction to students.
3.4. Route of entry shall reflect those definitions provided by WHMIS: http://www.hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/exposure-exposition-eng.php
3.5. A teaching laboratory shall be a room designated for the use of executing course laboratories detailed in the Academic Calendar.

SAFETY EQUIPMENT AND SUPPLIES

4.1. Safety Equipment to Control Exposures

4.1.1. Exposure controls and/or monitoring devices recommended by the MSDS or manufacturer shall be present and used as required.
4.1.2. The departmental technicians shall notify the instructors prior to the start of any laboratory work when any of the installed equipment (i.e. general [Heating, Ventilation, and Air Conditioning {HVAC}], fume hoods where present etc.), eye wash and shower stations, fire extinguishers are not in acceptable working condition.
4.1.3. Departmental technicians shall take every reasonable measure to correct deficiencies noted in 4.1.1 in a timely manner and record such measures using the online work order system through Facilities Management.
4.1.4. Departmental technicians shall ensure proper housekeeping based on the known teaching activities held and shall ensure that adequate PPE, MSDS's are available and substances properly labeled.
4.1.5. It is the responsibility of the instructor to ensure that the departmental technician(s) are provided with the most recent working copy of the lab manual for preparation purposes.
4.1.6. It is the responsibility of the departmental technicians to read and understand the lab manual and to ensure such activities are within their means of competence.
4.1.7. All personal protective equipment mandated by policy and/or this instruction shall be worn from start to finish of a course laboratory unless otherwise specified by the lab instructor. The Science Safety Technician shall be consulted prior to any decision to not use protective equipment.
4.1.8. The "Prohibited activities within laboratories (research and teaching) safety policy" shall be adhered to.
4.1.9. Where there is a failure of any of the equipment noted in 4.1.2 at a time of need during the execution of a course laboratory, it shall be filed as an official Injury/Incident report http://www.smu.ca/administration/ohs/incedent.html

PROCEDURE

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Laboratory manuals or experimental procedures prepared for any particular course laboratory shall clearly identify any and all sources of chemical, biological or radiation exposures. Identification shall be by means of clearly indicating the names(s) of substances to be used in each experiment and instruction of any additional controls required.

Manuals shall clearly indicate the following: Course name, course number, revision date, room(s) it is to be held in, course instructor(s). The instructor shall ensure that rooms chosen for the particular activities are appropriate for the type of laboratory work to be held using the information in this instruction.

Once completed, an electronic copy of the manual shall be uploaded to a dedicated SMUport group for review by the Science safety technician no later than three weeks prior to first day of classes.

The science safety technician shall maintain an archive or such manuals and associated documents (ie. variances, reportable incidents etc.) organized by: department > year > academic term > course number.

The above shall be executed for every offering of a course.