Laboratory Layout

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# Purpose

<<<< This SOP is left in DOCX format so that you may edit it for your own laboratory>>>

The purpose of this SOP is to lay out the responsibilities and procedures required for working in a laboratory with specific areas dedicated for specific uses, when the option of having separate rooms is not available, in order to prevent cross-contamination.

# Scope

This SOP applies to all persons working in a laboratory with multiple uses and their Supervisors.

# Responsibilities

## Supervisors

Supervisors are responsible for:

* **Reviewing this SOP on a regular basis. Review is to consider and mitigate the risks of spill, loss of containment, cross-contamination and exposure or other harm. Refer to Performing Risk Assessments SOP.**
* Ensuring all workers have access to facilities to store personal belongings.
* Ensuring the layout of dedicated areas is appropriate for the work undertaken in those areas.
* Ensuring the assignment of dedicated paperwork spaces and personal storage spaces prevents the risk of cross contamination of paperwork or personal items.
* Ensuring that all workers under their supervision are trained on and are proficient in performing the steps of this SOP.

## Workers

Workers are responsible for:

* Following this SOP as approved by their supervisor
* Report any new configurations of space that are required prior to initiating the reconfiguration.

# Equipment Needed

* Layout of all laboratory areas
* Signage indicating layout and dedicated areas

# Types of Areas

1. **Containment Level 2 Laboratory** – A room or suite of rooms where risk group 2 and risk group 1 biohazards are being stored and handled.
2. **Containment Level 1 Laboratory** – A room or suite of rooms where risk group 1 biohazards are stored and handled.
3. **Level 2 work area** – a lab work area where risk group 2 and risk group 1 biohazards are being handled. Can only be located in a Containment Level 2 laboratory.
4. **Level 1 work area** – a lab work area where risk group 1 biohazards are being handled. Can be located in a Containment Level 2 laboratory or a containment Level 1 laboratory.
5. **Non-biohazard work area** – a work area where lab work is being done, such as preparing chemicals, where no biohazards are present. Can be located in a Containment Level 2 laboratory or a containment Level 1 laboratory.
6. **Personal storage area** – a dedicated area for storing personal items, for example a set of hooks for street clothes or a set of cubby’s for storing bags and purses
7. **Dedicated Paperwork Area** or **Desk Area** – a dedicated area for writing reports and doing computer work, usually a series of desks or benches where students sit inside the laboratory.
8. **Lab storage area** – dedicated area for storage of supplies and equipment where no wet-work is to be carried out.

# Recommendations

1. Dedicated paperwork areas or desk areas and personal storage areas be buffered by non-work areas i.e. desks beside filing cabinets or supply shelving rather than beside a wet-work area.
2. Cardboard biohazard boxes be kept away from areas where contamination can occur. Pre-bagging level 1 waste in clear bags is preferred.
3. Cardboard storage boxes be kept away from wet-work areas.
4. Dedicated containers for each of biohazardous waste[[1]](#footnote-1) , regular laboratory waste and desk area waste.
5. Level 1 and Level 2 work areas be compressed as much as possible.
6. Place chairs made of non-absorbent materials in Level 1 and level 2 work areas and leave chairs made of absorbent materials in desk areas or non-biohazard areas.

# Creation of the Layout

1. Building maps can be found at <http://www.mcmaster.ca/uts/maps/> if you are non-hospital located.
2. HSC map screencaps of your area can be provided by the Biosafety Office. There are no maps available for other hospital-hosted locations.
3. Draw in location of benching, equipment and desks.
4. Draw boundaries for each separate type of work area.
5. Label each separate type of work area.
6. Attach maps to this SOP.

# Procedures

1. Dedicated paperwork and desk areas to be free of biological contamination.
2. PPE to be doffed prior to entry into the dedicated paperwork and desk areas.
3. Hands to be washed prior to entry into the dedicated paperwork and desk areas.
4. Items to be brought into the dedicated paperwork and desk areas to be decontaminated.
5. No hazardous materials shall be discarded in waste receptacles in the dedicated paperwork and desk areas.

# Temporary Dedicated Paperwork and Desk areas

1. All procedures are to be followed.
2. Signage may be posted at the beginning of the period where temporary space is required.
3. Signage to be removed at the end of the period where temporary space is required.

# Training

1. Each lab member is to read, agree and sign off on this SOP.
2. Upon revision or re-write, this SOP is to be re-circulated and re-signed by all lab members.
1. https://www.ontario.ca/document/management-biomedical-waste-ontario [↑](#footnote-ref-1)