**University of Maryland Baltimore County**

****

*(Lab Name)*

Laboratory Safety Plan

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1. **Introduction**

The purpose of this Laboratory Safety Plan is to demonstrate the commitment of this laboratory towards the safe completion of research and teaching activities, and the safety of the lab’s employees, students, and the greater UMBC community. This Plan contains pertinent information relating to maintaining safe research and teaching operations and is also developed to assist in facilitating the effective response to lab-related safety incidents.

This Plan has been prepared with the involvement of key stakeholders, including Principal Investigators, student and staff research assistants and technicians, building managers, and department faculty and staff.

This Plan shall be retained in the lab and be readily accessible for review. All laboratory personnel shall be required to review this Plan prior to any laboratory activities. This Plan will be reviewed on at least an annual basis, as well as when dictated by changes in research activities, or the introduction of new or modified research methods, processes, or equipment.

Signature of Principal Investigator/Supervising Faculty/Manager

Signature of Department Manager or Chair

Date Revised

1. **Laboratory Information**

**Name of Lab:**

**Type of Lab (check all that apply):**

|  |  |  |
| --- | --- | --- |
| [ ] **Teaching** | [ ]  **Research** | [ ]  **Other (specify):** |

**Location Information:**

Responsible Department:

Building:

Room Number:

Lab Phone Extension:

Principal Investigator:

* Name:
* Email:
* Contact Phone:

Building/Facility Manager:

* Name:
* Email:
* Contact Phone:
1. **Emergency Procedures and Important Contacts Emergency Equipment Locations:**
	* Nearest Fire Alarm Pull Station:
	* Nearest Emergency Exit:
	* Nearest Fire Extinguisher:
	* Spill Clean Up Kit:
	* Nearest First Aid Kit:
	* Nearest Automated External Defibrillator (AED):
	* Eyewash Station:
	* Emergency Shower:

**Police, Fire, Medical Emergency – Campus Police (410) 455-5555 (ext. 5-5555) or call 911\* Additional Contacts:**

|  |  |  |
| --- | --- | --- |
| **Service or Department** | **Mon-Fri 7am-4pm** | **After Hours** |
| UMBC Environmental Safety andHealth (ESH) | (410) 455-2918esh@umbc.edu | (410) 455-5555 |
| Retriever Integrated Health (RIH) | (410) 455-2542rih@umbc.edu | (410) 455-3230 |
| Office of Research Protectionsand Compliance (ORPC) | (410) 455-2737 | compliance@umbc.edu |
| University of MarylandBaltimore EHS (Radiation Safety) | (410) 706-7055 | (410) 706-7055 |
| UMBC Facilities Management –Work Control (For facilitiesissues) | (410) 455-2550 | (410) 455-2550 |
| Janitorial Services (ABM) | (410) 455-2101 | (410) 455-2550 |
| Campus Information Center(CIC) | (410) 455-1000 | (410) 455-1000 |

**\*For off-campus locations, contact 911 for all emergencies.**

1. **Reporting of Incidents and Injuries**
	* Follow the appropriate incident response as outlined in your laboratory specific Standard Operating Procedures (SOPs). Once the incident is stable, **immediately notify**:
		+ The Principal Investigator, Laboratory Manager or Supervisor, or Instructor.
		+ The Building/Facility Manager.
		+ The Office of Environmental Safety and Health (5-2918 or esh@umbc.edu ).
	* The reporting individual should complete a [Laboratory](http://safety.umbc.edu/) [Incident Report](http://safety.umbc.edu/) [Form](http://safety.umbc.edu/) found on [https://safety.umbc.edu](https://safety.umbc.edu/) and submit it to the Office of Environmental Safety and Health at esh@umbc.edu
	* The Office of Environmental Safety and Health will conduct a follow up investigation and contact all required parties.
	* It is important to note that if an incident involves exposure to any recombinant or biohazardous material, immediate reporting is required by the NIH.
	* If an injury has occurred, the employee should complete the [Employee’s](https://safety.umbc.edu/forms/) [Report of Work-Related Injury](https://safety.umbc.edu/forms/) form and the employee’s supervisor should complete the [Supervisor’s](https://safety.umbc.edu/forms/) [Report of Work-Related Injury](https://safety.umbc.edu/forms/) form found on <https://safety.umbc.edu/forms/>
2. **Laboratory Code of Conduct**

Below are the universal protocols that all lab personnel are expected to adhere to when performing any task in the lab space. Failure to abide by these practices can result in a safety incident or an injury and may lead to disciplinary action or revocation of lab use authorization.

* + Only authorized individuals are permitted in the lab.
	+ Labs must be secured when unattended to prevent unauthorized access.
	+ Always wear the appropriate attire in the lab. Open toed shoes, sandals, sleeveless shirts, tank tops, crop tops, ripped pants, and other similar items that do not cover the arms, torso, legs, and feet are prohibited.
	+ Wear the appropriate personal protective equipment (PPE) as dictated by

your Principal Investigator and by your specific laboratory’s SOPs.

* + Mouth pipetting is prohibited in all labs.
	+ Do not wear loose clothing, dangling or loose jewelry, or other articles that could potentially get caught in equipment. Tie back or secure long hair.
	+ Eating and drinking is only permitted in designated break areas.
	+ Chemical or biological refrigerators may not be used to store food or drink.
	+ Working alone in the lab should be avoided whenever possible. If working alone is critically necessary, let someone know and let them know how to contact you in case of an emergency or incident.
	+ Never work in the lab while distracted, fatigued, or while under the influence of alcohol or intoxicating substances.
	+ Let your supervisor know if you are taking prescribed medication that may affect your ability to work safely in the lab. You do not need to disclose which medication(s) you are taking.
	+ Health and safety regulations in place to protect workers (such as OSHA regulations) have broad impacts in the research and lab setting. For more information on OSHA and Research, [visit the ESH Research Safety web page.](https://safety.umbc.edu/research-safety/)
1. **Training**

Training requirements are established through regulations and standards, such as OSHA, and by UMBC safety procedures, as well as accrediting or administrative bodies that govern research safety.

All laboratory personnel are required to complete the following training prior to any lab duty assignment and periodically as needed, unless otherwise indicated below:

* + Bloodborne Pathogens Awareness (if working with blood or potentially infectious material, Offered Through CITI and Webnet, **required annually**)
	+ Hazard Communication Modules 1 and 2 (Offered Through CITI and Webnet, required every three years)
	+ RCRA Hazardous Waste Awareness (Offered Through Webnet, required every three years)
	+ Personal Protective Equipment (Offered Through CITI and Webnet, required every three years)
	+ UMBC Lab Safety (Offered Through CITI as part of the Hazard Communication module, also offered on Webnet, required every three years)

Laboratory staff working with **recombinant DNA, biohazardous materials, human subjects, and animals** should utilize CITI ([www.citiprogram.org](http://www.citiprogram.org)) for training requirements specific to their field of research. Listed below are a few of the training courses offered:

* + Animal Care and Use Training (only applicable if you are a PI working with animals, animal tissues or fluids
	+ Biosafety Training Series (Complete or Modified Series is required if working on any IBC protocol)
	+ OSHA Bloodborne Pathogens (if working with blood or potentially infectious material, required annually)
	+ Export Control Training (required when research activities include use of or access to technologies that may be subject to U.S. export control laws)
	+ Human Participant Use training (required when working with human subjects)

For assistance or questions about training requirements, or if access to CITI or Webnet is needed, contact ESH.

Depending on the type of research being conducted and hazards present, there may be other lab- specific training requirements. Lab training requirements may also be dictated by standard operating procedures (SOPs). Consult your Principal Investigator or ESH for guidance on navigating additional training requirements in your area.

**Records Retention:**

Training documents shall be kept by the Principal Investigators or other applicable laboratory managers for the duration of employment for the laboratory personnel or appointment plus five years unless otherwise denoted for a longer period by regulatory standards.

1. **Hazardous Waste Protocol**

Always handle and store all lab-generated hazardous waste according to applicable OSHA and EPA regulations, as well as UMBC and lab-specific protocols.

To request a hazardous waste pickup, contact ESH at esh@umbc.edu. All hazardous waste containers must be appropriately labeled and secured prior to pick up. ESH may refuse any inappropriately labeled or secured hazardous waste until corrected.

For any emergency involving a spilled chemical or hazardous substance that you cannot adequately control, call ESH at 5-2918. For after-hours emergencies, contact Campus Police (ext. 5-5555) or 911. Do not attempt to clean up or contain a large spill or if you are uncertain how to proceed.

**Appendix A: Inventory of Laboratory Equipment**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Equipment ID/Asset Tag** | **Serial Number** | **Equipment Type** | **Equipment Functioning and Operational?** | **Date of Last Inspection/Service** | **Next Inspection/Service Due Date** |
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**Appendix B: Current Authorized Lab Users**

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| **Name** | **Position/Title** | **Contact Phone** | **Email** |
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**Appendix C: Laboratory Standard Operating Procedures (SOPs)**

List and insert lab-specific SOPs here. QR codes can also be used.

**Appendix D: Chemical Inventory**

Insert a copy of the most current chemical inventory here. QR codes may also be used.

**Appendix E: Safety Data Sheets (SDS)**

Safety Data Sheets for lab chemicals can be inserted in this appendix or list the location in the lab where SDS’s can be accessed.

**Appendix F: Additional Resources**

Click the links provided below or scan the QR code with your mobile device to view these additional guides and resources to assist you.

|  |  |
| --- | --- |
| [UMBC ESH](https://safety.umbc.edu/)[Webpage](https://safety.umbc.edu/) | A qr code on a white background  Description automatically generated |
| [UMBC ESH –](https://safety.umbc.edu/training/)[Training](https://safety.umbc.edu/training/) [Information](https://safety.umbc.edu/training/) | A qr code with black squares  Description automatically generated |
| [SOP](https://safety.umbc.edu/wp-content/uploads/sites/507/2024/10/SOP-Template-10-2024.docx)[Template](https://safety.umbc.edu/wp-content/uploads/sites/507/2024/10/SOP-Template-10-2024.docx) |  |
| [Lab Incident](https://safety.umbc.edu/wp-content/uploads/sites/507/2024/05/Laboratory-Incident-Report-Form-Fillable-Copy-Modified-5-2024.pdf) [Report Form](https://safety.umbc.edu/wp-content/uploads/sites/507/2024/05/Laboratory-Incident-Report-Form-Fillable-Copy-Modified-5-2024.pdf) |  |
| [Office of Research](https://research.umbc.edu/office-of-research-protections-and-compliance/) [Protections and](https://research.umbc.edu/office-of-research-protections-and-compliance/) [Compliance](https://research.umbc.edu/office-of-research-protections-and-compliance/) [(ORPC)](https://research.umbc.edu/office-of-research-protections-and-compliance/) | A qr code with black squares  Description automatically generated |
| [SDS Access/Scishield](https://safety.umbc.edu/sds-access/) |  |

**Appendix G: Laboratory User Acknowledgement**

All authorized laboratory users shall review and sign this acknowledgement prior to assignment of any tasks in the laboratory.

By signing this acknowledgement, I attest that I have reviewed this Laboratory Safety Plan and all accompanying appendices and have completed all necessary training before beginning my assigned lab duties. I have reviewed, understand, and agree to adhere to all applicable UMBC and department and lab-specific policies, procedures, and requirements as it pertains to my functions and duties in the lab to which I am assigned. I understand that I shall promptly report any unsafe conditions or safety concerns to my laboratory supervisor or Principal Investigator.

I understand that failure to comply with these requirements may result in disciplinary action or termination of lab access authorization.

Signature of Authorized Lab User

Date

Signature of Principal Investigator/Supervising Faculty/Manager