LABORATORY RISK ASSESSMENT TOOL (Lab R.A.T.)

This Laboratory Risk Assessment Tool (Lab RAT) provides a framework for risk assessment complimenting the process researchers already use to answer scientific questions and on making science laboratories accessible and inclusive – with a focus on service dog access.

This tool provides a format for researchers/facilities/universities to systematically identify and control hazards to reduce risk of injuries and incidents and to evaluate reasonable accommodations for people with disabilities. Conduct a risk assessment prior to conducting an experiment for the first time, or providing support for people with disabilities and review the **Lab R.A.T. Guidelines** document for further details.

The risk assessment process involves rating the risk of the experiment from "low" to "unacceptable" risk. Consult with your PI/supervisor and EH&S if your risk rating is "high" or "unacceptable" to redesign the experiment and/or implement additional controls to reduce risk.

Facility:		
PI / Lab Group:		
Department:	**Building / Location:**	
Form Completed By:		**Start Date:**

1. What might go wrong? (risk identification)
2. What is the likelihood (complexity) it will go wrong?
3. What are the consequences (criticality)?

All checkboxes must be checked, and text boxes completed for complete evaluation and assessment. An initial score of zero at the start of an inspection is assigned. Points are added to that score for each blank box. Lower scores therefore indicate less risk. If checkboxes are left blank, then the assessor will discuss options and make suggestions for making the laboratory inclusive and safe. All boxes checked or unchecked apply to each level and build on each other.

Phase 1: Explore

Identify your research question and approach. What is the laboratory objective? What are you trying to measure or learn? What approach or method will you use to answer your question? Are there alternative approaches?

Research Question(s)

Approach(s) or Method

Identify the general hazards (check all that apply). Perform background research to identify known risks of the reagents, reactions, or processes. Review protocols, Safety Data Sheets (SDSs), and safety information for hazardous chemicals, agents, or processes. Review accident histories within the laboratory/department.

Hazardous Agents

Physical Hazards of Chemicals

☐ Compressed gases
☐ Cryogens
☐ Explosives
☐ Flammables
☐ Organic peroxides
☐ Oxidizers
☐ Peroxide formers
☐ Pyrophorics
☐ Self-heating substances
☐ Self-reactive substances
☐ Substances which, in contact with water, emit flammable or toxic gases

Health Hazards of Chemicals

☐ Acute toxicity
☐ Carcinogens
☐ Eye damage/ irritation
☐ Germ cell mutagens
☐ Nanomaterials
☐ Reproductive toxins
☐ Respiratory or skin sensitization
☐ Simple asphyxiant
☐ Skin corrosion/ irritation
☐ Specific target organ toxicity
☐ Hazards not otherwise classified

Ionizing Radiation

☐ Irradiator
☐ Radionuclide
☐ Radionuclide sealed source
☐ X-ray machine

Non-Ionizing Radiation

☐ Lasers, Class 3 or 4
☐ Lasers, Class 2
☐ Magnetic fields (e.g., NMR, MRI)
☐ RF/microwaves
☐ UV lamps

Biohazards

☐ BSL-2 Biological agents
☐ BSL-3 Biological agents
☐ Human cells/blood/ BBP
☐ NHPs/cells/blood
☐ Non-exempt rDNA
☐ Animal work
☐ High risk animals (RC1)
☐ Other (list):

Hazardous Conditions or Processes

Reaction Hazards

☐ Explosive

☐ Exothermic, with potential for fire, excessive heat, or runaway reaction

☐ Endothermic, with potential for freezing solvents decreased solubility or heterogeneous mixtures

☐ Gases produced

☐ Hazardous reaction intermediates/products

☐ Hazardous side reactions

Hazardous Processes

☐ Generation of air contaminants (gases, aerosols, or particulates)

☐ Heating chemicals

☐ Large mass or volume

☐ Pressure > atmospheric

☐ Pressure < atmospheric

☐ Scale-up of reaction

Other Hazards

☐ Hand/power tools

☐ Moving equipment/parts

☐ Electrical

☐ Noise > 80 dBA

☐ Heat/hot surfaces

☐ Ergonomic hazards

☐ Needles/sharps

☐ Other (list):

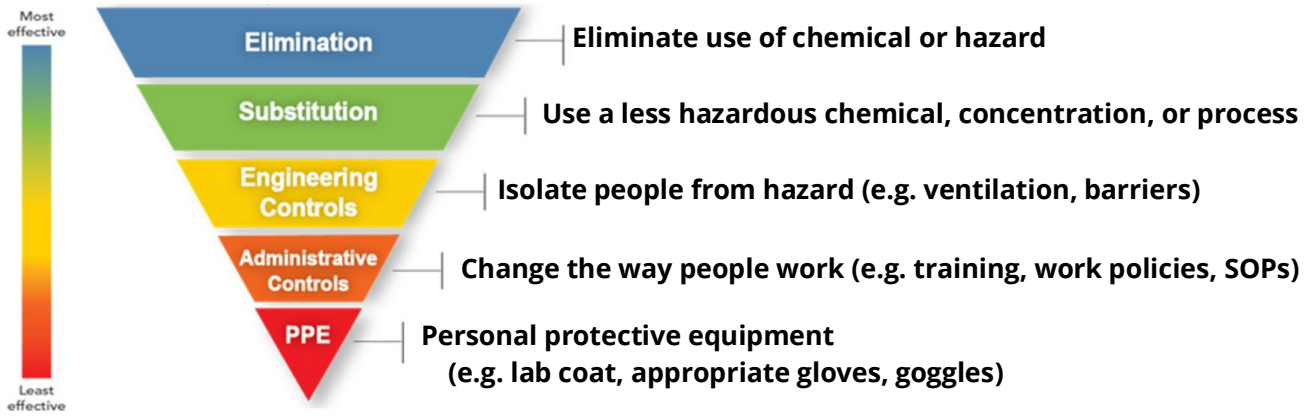
Notes: List any hazardous agents, conditions, processes not listed above. List any additional concerns not listed.	

Phase 2: Plan

Outline the Procedure. List the steps or tasks for your laboratory/procedure and the hazard/potential consequences of each. Include set-up and clean-up steps or tasks. Define the hazard controls to minimize the risk of each step using the hierarchy of controls starting with the most effective (i.e., elimination, substitution, engineering controls, administrative controls, and personal protective equipment). List the hazard control measure you would use for each step or task (e.g., run at a micro scale, work in a fume hood, wear face shield and goggles).

Steps or Tasks	Hazard	Hazard Control Measure(s)

HIERARCHY OF CONTROLS



1 For guidance on selection of Personal Protective Equipment (PPE), use EH&S PPE Hazard Assessment Tool.
2 For guidance on selection of personal protective equipment (PPE), see HHS.gov Website.

A hierarchy of controls should be applied starting with the most effective controls (i.e., elimination and substitution) at the top of the graphic and moving down. While personal protective equipment (PPE) should always be used, it should be considered the last line of defense from potential hazards.

Assign a risk rating to the experiment. Based on your procedure/laboratory and the what if analysis, determine the risk rating for the laboratory, experiment or procedure.

Risk Rating: _____
The Risk Rating is subjective. The primary goal is for researchers to think about risk and differentiate unacceptable and high-level risk steps from those with a lower level risk. This will help drive additional consultation and control measures where needed.

		Severity of Consequences – Personnel Safety			
Likelihood of Incident Occurrence		No injuries	Minor Injury	Significant Injury	Life threatening
	Very Likely	Low	High *	Unacceptable **	Unacceptable **
	Likely	Low	Medium	High *	Unacceptable **
	Possible	Low	Medium	High *	High *
	Rare	Low	Low	Medium	High *

Revise the plan if the risk rating is too high. Are these risks acceptable? Use this table to determine the action to take based on the risk rating. What are the highest risk steps? What more can you do to control the risks? Return to planning and use the hierarchy of controls to design a safer experiment.

Hazard Risk Level	Action
Unacceptable **	**STOP!** Additional controls needed to reduce risk. **Consult with PI.**
High *	Additional controls recommended to reduce risk. **Consult with PI.**
Medium	Ensure you are following best practices. Consult with peers, PI, and EH&S as needed.
Low	Perform work within controls

PI/Supervisor Approval:
_____
***Signature for **High**-risk ratings. If needed, contact EH&S (206.221.2339) for recommendations.
NOTE: ****Unacceptable risk-rated experiments **should not proceed**. Introduce further controls to reduce risk. Contact EH&S (206.221.2339) for recommendations and best practices.

U.S Department of Health and Human Services:

Outline personal protective equipment (PPE):
HAZMAT Protection Levels - Chemical levels labeled:

A and B require respiratory protection and hooded chemical-resistant clothing
C: Personal protective equipment used as appropriate. Gloves, shoes/boots, eye protection
D: The atmosphere contains no known hazard

All checkboxes must be checked for complete evaluation and assessment. An initial score of zero at the start of an inspection is assigned. Points are added to that score for each blank box. Lower scores therefore indicate less risk. If checkboxes are left blank, then the assessor will discuss options and make suggestions for making the laboratory inclusive and safe. All boxes checked or unchecked apply to each level and build on each other.

Centers for Disease Control and Prevention (CDC) Laboratory Biosafety Levels (BSL):

Biological Safety Level-1 (BSL-1) Suitable for work involving well-characterized agents not known to consistently cause disease in immunocompetent adult humans, and present minimal potential hazard to laboratory personnel and the environment. BSL-1 laboratories are not necessarily separated from the general traffic patterns in the building. Work is typically conducted on open bench tops using standard microbiological practices. Special containment equipment or facility design is not required but may be used as determined by appropriate risk assessment. Laboratory personnel must have specific training in the procedures conducted in the laboratory and must be supervised by a scientist with training in microbiology or a related science. Represents a basic level of containment that relies on standard microbiological practices with no special primary, or secondary barriers recommended other than a sink for hand washing.

Please select all that currently apply to your area:

☐ Laboratory has doors to control access to the laboratory.
☐ There is a hand washing sink available near the laboratory exit for hand washing after working with potentially hazardous materials and before exiting the laboratory.
☐ Eating, drinking, smoking, handling contact lenses, applying cosmetics and storage of food for consumption are not permitted in the laboratory.
☐ Mouth pipetting is prohibited; mechanical pipetting devices must be used.
☐ Policies for safe handling of "sharps" are developed and implemented (e.g. needles, scalpels, pipettes, broken glassware).
☐ Procedures are performed to minimize the creation of splashes and/or aerosols.
☐ Work surfaces are decontaminated after completion of work and after any spills or splashes of potentially infectious material with appropriate disinfectant.
☐ Cultures, stocks and other infectious materials are decontaminated before disposal.
☐ A biohazardous sign is posted at the entrance to the laboratory when infectious agents are present.
☐ An effective pest management program is implemented in the laboratory.
☐ All personnel have received appropriate training regarding their duties and the necessary precautions to prevent and evaluate exposures.
☐ Personal protective equipment, laboratory coats, gloves, protective eyewear, are available and used appropriately.
☐ If present, all windows in the laboratory that open to the exterior are fitted with screens.
☐ Bench tops are impervious to water and resistant to heat, organic solvents, acids, alkalis and other chemicals.
☐ The laboratory design allows for easy cleaning (e.g. no rugs or carpets, chairs covered in a non-porous material).

Biological Safety Level-2 (BSL-2)
Must meet all the requirements listed in Biosafety Level 1 plus the following items. BSL-2 is suitable for work involving a broad spectrum of indigenous agents that pose moderate hazards to personnel and the environment. It differs from BSL-1 in that 1) laboratory personnel have specific training in handling pathogenic agents and are supervised by scientists competent in handling infectious agents and associated procedures; 2) access to the laboratory is restricted when work is being conducted; and 3) all procedures in which infectious aerosols or splashes may be created are conducted in biosafety cabinets (BSCs) or other physical containment equipment. Secondary barriers such as hand washing sinks and waste decontamination facilities must be available to reduce potential environmental contamination.

Please select all that currently apply to your area.

☐ The laboratory has self-closing doors that may be locked to control access to the laboratory.
☐ Persons entering the laboratory must be advised of the potential hazards and meet specific entry/exit requirements.
☐ There is an automatic or manually operated hands-free hand washing sink available near the laboratory exit for hand washing after working with potentially hazardous materials and before exiting the laboratory.
☐ Laboratory equipment is decontaminated routinely, before repair and maintenance, and after spills and splashes with contaminated material.
☐ All potentially infectious laboratory waste is decontaminated before disposal (e.g. autoclave, chemical disinfection, incineration, etc.).
☐ If infectious waste is decontaminated outside of the immediate laboratory, the infectious material is placed in a durable, leak-proof container and secured for transport.
☐ A biohazard sign is posted at the entrance to the laboratory.
☐ Sign must include the following information: Laboratory's biosafety level, supervisor's or other responsible person, telephone number, required procedure for entering/exiting the laboratory. All personnel have received appropriate training regarding their duties on the necessary precautions to prevent and evaluate exposures and have demonstrated competency in standard and special microbiological practices.
☐ Incidents that may result in exposure to infectious materials are immediately evaluated and reported to a responsible person.
☐ Treatment is provided, and documentation of the incident is recorded.
☐ Medical surveillance is provided to laboratory personnel and appropriate immunizations have been offered to laboratory personnel.
☐ A biosafety manual containing established policies and procedures is available and accessible.
☐ Personal protective clothing is removed before leaving for non-laboratory areas.
☐ All procedures involving the manipulation of infectious materials that may generate an aerosol are conducted within a properly maintained and annually certified BSC (preferably Class II) or other physical containment device.
☐ The BSC must be installed so that fluctuations of room air supply and exhaust do not interfere with proper operations.
☐ The BSC is located away from doors, windows, heavily traveled areas and other possible airflow disruptions.
☐ Animals and plants not associated with the work being performed must not be permitted in the laboratory.
☐ Centrifuges have centrifuge safety cups/carriers or sealed rotors and cups/carriers are only opened in a biosafety cabinet.

Biosafety Level 2 continued:

☐ Vacuum lines are protected with HEPA filters, or their equivalent.
☐ Filters are replaced as needed. Liquid disinfection traps may be required.
☐ An eyewash station is readily available.
☐ Windows in the laboratory that open to the exterior are not recommended, but any present must be fitted with screens.
☐ The laboratory has sufficient air exchanges (e.g. 6-8 exchanges/hour) and exhausts away from occupied areas to clear the air in the event of a spill.
☐ If present, the chemical fume hood is in the proper working order and is certified annually.
☐ All equipment is decontaminated before removal from the laboratory.

Biological Safety Level-3 (BSL-3)
Applicable to clinical, diagnostic, teaching, research, or production facilities where work is performed with indigenous or exotic agents that may cause serious or potentially lethal disease through inhalation route exposure. Laboratory personnel must receive specific training in handling pathogenic and potentially lethal agents and must be supervised by scientists competent in handling infectious agents and associated procedures. All procedures involving the manipulation of infectious materials must be conducted within BSCs, other physical containment devices, or by personnel wearing appropriate personal protective equipment. All procedures involving the manipulation of infectious materials that may generate an aerosol are conducted within a properly maintained and annually certified BSC or other physical containment device.

Please select all that currently apply to your area.

☐ The laboratory must enforce policies that control access to the laboratory.
☐ The laboratory has a series of two self-closing doors that may be locked to control access to the laboratory.
☐ A clothing changing room (anteroom) may be included in the passageway between the two doors.
☐ Persons entering the laboratory must be advised of the potential hazards and meet specific entry/exit requirements.
☐ The laboratory must be separated from areas open to unrestricted traffic flow within the building.
☐ If the laboratory is segregated into different rooms/zones, there is an automatic or manually operated hands-free hand washing sink available near the exit in each room/zone.
☐ Protective laboratory clothing with a solid-front such as tie-back of wrap-around gowns, scrub suits, or coveralls are worn by workers when in the laboratory.
☐ Protective clothing is not worn outside the laboratory.
☐ Reusable clothing is decontaminated before laundering.
☐ Clothing is changed when contaminated.
☐ Eye and face protection (goggles, mask face shield, or splatter guard) is used for anticipated splashes or sprays of infectious and other hazardous materials.
☐ Gloves are worn to protect hands from exposure to hazardous materials.
☐ If present, all windows in the laboratory are sealed.
☐ The laboratory design allows for easy cleaning (e.g. no rugs or carpets, chairs covered in a non-porous material) Seams, floors, walls, and ceiling surfaces are sealed.
☐ Spaces around doors and ventilation openings are sealed to facilitate room decontamination.

Biosafety Level 3 continued:

☐ Floors are slip resistant, impervious to liquids and resistant to chemicals.
☐ Walls and ceilings are constructed with a sealed smooth finish that can easily be cleaned and decontaminated.
☐ The laboratory has sufficient air exchanges (>12 exchanges/hour) and exhausts away from occupied areas to clear the air in the event of a spill.
☐ Laboratory exhaust is not re-circulated to any area of the building but is HEPA filtered and dispersed outside away from occupied areas and air intakes.
☐ Equipment that may produce infectious aerosols is contained in devices that exhaust air through HEPA filtration or other equivalent technology before being discharged into the laboratory.
☐ These HEPA filters are tested and/or replaced at least annually.
☐ BSL-3 facility design, operational parameters and procedures are verified and documented prior to operation and annually thereafter.

Biological Safety Level-4 (BSL-4)
Required for work with dangerous and exotic agents that pose a high individual risk of aerosol-transmitted laboratory infections and life-threatening disease that is frequently fatal, for which there are no vaccines or treatments, or a related agent with unknown risk of transmission. Agents with a close or identical antigenic relationship to agents requiring BSL-4 containment must be handled at this level until sufficient data are obtained either to confirm continued work at this level or redesignate the level. Laboratory staff must have specific and thorough training in handling extremely hazardous infectious agents. Laboratory staff must understand the primary and secondary containment functions of standard and special practices, containment equipment, and laboratory design characteristics. All laboratory staff and supervisors must be competent in handling agents and procedures requiring BSL-4 containment. The laboratory supervisor, in accordance with institutional policies, controls access to the laboratory.

All sections must be completed for complete evaluation and assessment. An initial score of zero at the start of an inspection is assigned. Points are added to that score for each blank box. Points are added for increased risk levels, e.g., BSL 1 (score 1 point) BSL 2 (score 2 points), and so forth. Lower scores therefore indicate less risk. If checkboxes are left blank, then the assessor will discuss options and make suggestions for making the laboratory inclusive.

Biosafety and Chemical Levels: Select all that apply

☐ BSL-1
☐ BSL-2
☐ BSL-3
☐ BSL-4
☐ CHEM-D
☐ CHEM-C
☐ CHEM-B
☐ CHEM-A

Work Practices BSL:
☐ 1 ☐ 2 ☐ 3 ☐ 4

Floor Plan:
☐ Open ☐ Separate Room ☐ Alcove

Biological Safety Cabinet (BSC):

A BSC is not the same as a laminar flow hood/clean bench.
☐ Class I ☐ Class II ☐ N/A

Biological Safety Cabinet Certified: (All BSCs must be certified annually)
☐ Yes ☐ No ☐ N/A

Work Environment:

Chemical Fume hood:
☐ Yes ☐ No

Hand-washing Sink:
☐ Yes ☐ No

Non-porous Chairs:
☐ Yes ☐ No ☐ N/A

Impervious Bench Tops:
☐ Yes ☐ No

Personal Protective Equipment (PPE):

Gloves:
☐ Latex ☐ Nitrile ☐ Vinyl ☐ Other

Protective Eyewear: *Eyeglasses are not considered protective eyewear.
☐ Safety Glasses ☐ Goggles ☐ Face Shield ☐ N/A

Protective Clothing:
☐ Designated scrubs ☐ Coveralls ☐ Lab Coat
☐ Impermeable Gown ☐ Impermeable Closed Front Gown ☐ Tyvek Jumpsuit

Respiratory Protection:
☐ Surgical mask ☐ N95 Face Shield ☐ PAPR ☐ N/A

Is staff fit-tested annually for respiratory protection?
☐ Yes ☐ No ☐ N/A

Closed-toe shoes that cover entire foot:
☐ Yes ☐ No

Other:
☐ Booties ☐ Bonnet ☐ Sleeve Protectors ☐ Ear plugs ☐ Hair/Beard net/covering

Chemical:

Proper labeling: All containers labeled with the name of the chemical(s):
☐ Yes ☐ No

Updated chemical inventory:
☐ Yes ☐ No

Safety Data sheets accessible to staff:
☐ Yes ☐ No

Incompatible chemicals segregated:
☐ Yes ☐ No

Flammable liquids stored: rated chemical cabinets:
☐ Yes ☐ No

Flammable liquids stored: stored in flammable-rated refrigerators/freezers:
☐ Yes ☐ No

Excessive chemicals stored in chemical storage room:
☐ Yes ☐ No

Compressed gas cylinders stored in laboratory:
☐ Yes ☐ No

Chemicals stored at eye-level:
☐ Yes ☐No

Acids and bases stored in:
☐ Cabinet ☐ Labeled area ☐ Free from metals

Cabinet Chemical fume hoods:
☐ Certified within past year
☐ Sash closed when not in use
☐ Exhaust air not blocked by large equipment or containers
☐ Used for hazardous/toxic or flammable procedures

Chemical spill kit maintained:
☐ Yes ☐ No

Chemical waste containers: (select all that apply)
☐ Labeled with chemical names and percent of each chemical
☐ Properly sealed
☐ In good condition for transport

Laboratory PPE/Safety Supplies

Select the appropriate PPE, BSL, CHEM Levels and safety supplies for the procedure (check all that apply).

☐ Appropriate Street clothing: (long pants, closed shoes)
☐ Spill kit
☐ First aid kit
☐ Gloves; indicate type: _____
☐ Safety glasses
☐ Safety goggles
☐ Face shield and googles
☐ Lab coat
☐ Flame-resistant lab coat
☐ Hair or beard covering
☐ Fire extinguisher
☐ Accessible Eyewash/safety shower
☐ Specialized medical supplies (e.g. calcium gluconate for hydrofluoric acid and amyl nitrite for cyanides
☐ Other (list):

Emergency Procedures

☐ Are food and drink present in the lab?
☐ Do all aisles within the laboratory space(s) have sufficient width of 36" for passing?
☐ Are there accessible workbenches? If so, how many? _____
☐ Is there additional space at the accessible workstation for an assistant, service animal, and/or additional assistive equipment such as a large screen monitor?
☐ Are any doors or corridors obstructed?
☐ Are there protruding items in the aisle?
☐ Are there any items placed on the corridor doors or vision panels (windows) on the doors?
☐ Are animals used for research in the laboratory? If yes, do all laboratory personnel have approval for use, access to IACUC protocol(s), appropriate training and animal contact clearance?
☐ Are there alternative accessible routes of ingress and egress?
☐ Do laboratory personnel know how to report fires, chemical spills, exposures, and other accidents/incidents or near misses?
☐ Are signage accessible and inclusive in design? (audio, color coded, raised and tactile, "pull-cord" alarm buttons, visual lab warning signals or braille)
☐ Are methods of communication for emergency reporting accessible? (Emergency buttons, TTY, app or autodial)
☐ Is the safety shower accessible?

Accessible Laboratory Checklist

☐ Are equipment, chemicals, safety equipment (such as fire extinguishers and spill kits), controls, and operating mechanisms at a height that is accessible from a seated position and limits extended reaching?

☐ Is the workspace and equipment able to accommodate both left-handed and righthanded users?

☐ Are there accessible workbenches? If so, how many? _____

☐ Is the laboratory located on an accessible route, with an elevator in proximity and unobstructed pathways providing access to the lab entrance?

☐ Are there any items placed on the corridor doors or vision panels (windows) on the doors?

☐ Is there a minimum clear aisle width of 1100 mm (43 ¼ in.). The preferred width is 1830 mm (72 in.), which allows two wheelchair users to pass each other?

☐ Is there an accessible bench at no more than 34 inches and no less than 28 inches above the floor, with at least 27 inches of knee clearance underneath?

☐ Are there alternative accessible routes of ingress and egress?

☐ Are there automatic door openers?

☐ Are signage accessible and inclusive in design? (audio, color coded, raised and tactile, or braille)

☐ Are methods of communication for emergency reporting accessible? (Emergency buttons, TTY, app or autodial)

☐ Are staff members familiar with assistive technology alternate document formats, and how to respond to requests for disability-related accommodations?

☐ Are there breakable materials?

☐ Can you provide plastic products instead of glass/stainless when available?

☐ Are there slippery materials?

☐ Can you provide non-slip mats, beaker and object clamps/stands, beakers and equipment with handles, and surgical gloves to handle slippery items?

☐ Can controls on lab equipment be reached from a seated position?

☐ Does equipment require a high degree of fine motor control or force in order to operate?

☐ Do you have strategies for dividing the labor in a way that ensures all students in a group, including students with disabilities, actively participate in hands-on learning activities?

☐ Are there policies or procedures for accommodating students who receive extra time on assignments?

☐ Does equipment have audible readout capabilities?

☐ If doors close automatically due to fire, ensure that the hardware will allow the door to remain open long enough for a person using a mobility device to move through. The length of time the door takes to close must comply with the fire code.

☐ Are there lever handles?

☐ Are there quiet work or meeting areas where noise and other distractions are minimized?

☐ Is there additional space if students require attendants, sign language interpreters, computerized note-takers, or service animals?

Service Dog Specific: If N/A leave blank

☐ Is there a facility service dog policy that specifically addresses service dogs in the laboratory?

☐ Are there any restrictions listed on the policy? If so, what?

_____

☐ Is there a bench or space that a service dog can lie comfortably without being a tripping hazard?

☐ Is the bench or space a location where there are no chemicals directly above the service dog?

☐ Is that bench or space within direct line of sight of the handler where a rubber backed mat can be placed for the service dog to lay on?

☐ Can the rubber backed mat be left safely in the laboratory in an office, closet, or drawer for daily access?

☐ Is the space on the opposite side of the room from the fume hood?

☐ Can reagents, chemicals, or equipment be moved to a location closer to the handler?

☐ Can breaks be extended to accommodate a handler to take their dog for relief?

☐ Does the laboratory have moving machinery at a level that might be a hazard to a service dog (can the machinery catch in the dog's fur)?

☐ Can the lab or class be moved to a more accessible location?

☐ Can the service dog safely and effectively wear the same PPE as the handler on a given day? Note: A service dog MUST always wear boots in the lab.

☐ If the service dog performs medical alert what method do they use?

☐ If the service dog uses a "nudge" to notify their handler can an alternative be used to prevent a spill?

☐ Can the service dog refrain from retrieving dropped items off the laboratory floor using their mouth?

☐ Will the service dog lay in a down-stay on a rubber backed mat for up to four hours?

☐ Can the service dog stay in a location not tethered to their handler?

☐ If the service dog will stay in a location not tethered to their handler will they recall directly to the handler when needed?

☐ Can the handler be separated for brief amounts of time from their service dog?

☐ If the handler can be separated for brief amounts of time from their service dog do they need a human assistant?

☐ Is there a location the service dog can safely rest outside of the direct laboratory for short periods of time, if needed, e.g., office? (NOT a closet!)

Job Specific Training

Identify the appropriate training (check all that apply).

☐ Lab/job-specific training
☐ Training by supervisor
☐ Training by graduate student
☐ Training by peer
☐ Required disability awareness training
☐ Required up-to-date certifications or accreditations
☐ Lab SOP(s) to review (list):_____
☐ Regularly scheduled reviews or meetings to discuss procedures, progress, and answer questions
☐ Emergency plans or field evacuation plans
☐ Equipment SOP(s) to review (list):_____

General Safety Training

Identify the appropriate training (check all that apply). Identify the general safety and procedure based/specific training appropriate for your procedure.

General/Chemical Safety
☐ Lab Safety Compliance & Practices
☐ Managing Lab Chemicals
☐ Compressed Gas Safety
☐ Fume Hood Training
☐ Hydrofluoric Acid Safety
☐ Formaldehyde Safety
☐ Laboratory Safety Training
☐ NIH Guidelines Overview
☐ Using Hazardous Chemicals in an Animal Facility
☐ OHS Training

Biosafety
☐ Biosafety Training
☐ Bloodborne Pathogens
☐ Animal Allergies
☐ Animal Care and Use Risk Assessment
☐ Basic Training Program for Animal Users
☐ Working with Animals in Research

Radiation Safety
☐ Radiation Safety
☐ Laser Safety

Field Safety
☐ First Aid & CPR
☐ SCUBA certification/diving safety
☐ Driving safety
☐ Other (list):
☐ Other (list):

Engineering Safety
☐ Flying debris
☐ Heat generating equipment
☐ Moving parts
☐ Noise above 80dB(A)
☐ Excessive dust

Phase 3: Challenge

Question your methods. What have you missed and who can advise you? Challenge your hazard control measures by asking "What if…?" questions. "What if" questions should challenge you to find the gaps in your knowledge or logic. Include possible accident scenarios. Factors to consider are human error, lack of understanding, equipment failures, and deviations from the planned/expected parameters (e.g., temperature, pressure, time, flow rate, and scale/concentration), concerns about space, safety, or integrity of the research. Update your plan to include any new controls required to address these possibilities.

What If Analysis
What if…? Examples: there is an emergency? …a service dog accompanies its handler? … …there may be unsafe conditions for a service dog in a laboratory … students wear personal protective equipment? …the faculty and staff do not know how to accommodate a person with a disability and/or a service dog? …..
Then…. …have accessible ways of evacuation been identified … are there ways to accommodate the service dog safely …contact the appropriate people to conduct an informed risk assessment. …the service dog should wear the same personal protective equipment as the student on a given day …ensure there is appropriate and informed training provided to all faculty and staff, contact the disability resource center, conduct a risk assessment to determine reasonable accommodation.
What if…?
Then…
What if…?
Then…
What if…?
Then…
What if…?
Then…
What if…?
Then…
What if…?
Then…

Phase 4: Assess

Observations and Assessors Notes
What went well?
Was the laboratory staff cooperative?
Did anything unexpected occur?
Did a hazard manifest itself that was not previously identified?
Were there any close-calls or near misses that indicate areas of needed improvement?
Did something go exceptionally well that others could learn from?
Suggestions for improvement:

Procedure Risk Assessment is Complete	
Form Completed By:	
Signature:	**Date:**
PI / Supervisor Signature:	

Assessor's comments:

Score:

Rating:

Recommendations:

Assessor: _____Date: _____

Recommendations Addendum: