

Laboratory Self Audit 2022 Preview

The Laboratory Self Audit (LSA) is a mandatory online inspection checklist for FIU's laboratory community intended to cultivate a proactive approach to safety and regulatory compliance.

Utilize this preview to:

- Review the safety and regulatory requirements for laboratory spaces
- Improve operations and reduce risks of hazards
- Educate new and existing space occupants on regulatory requirements and best practices

The LSA must be submitted online; physical and e-copies will not be accepted. For more information, visit EH&S' LSA webpage:

<https://ehs.fiu.edu/safety-programs/laboratory/index.html#3>

Important Dates:

On August 30th, 2022,

On November 30th, 2022,

LSA & LSA Feedback Survey opens

LSA closes

Legend:

Display Logic: denotes questions that will display when conditions are met.

Display Choice: denotes responses that will appear when conditions are met.

Skip Logic: denotes questions that will skip ahead when conditions are met.

Display Selected Choices: denotes responses that were previously selected.

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Introduction Block

Q1.1

Welcome to the 2022 Laboratory Self Audit (LSA).

Please ensure that you have knowledge of the operations and hazards associated with the space and have the authority to influence the implementation of corrective action(s), such as the Principal Investigator (PI), Laboratory Manager, or Laboratory Staff. No Students, Interns, or Volunteers are authorized to participate in the LSA to abide by the Family Educational Rights and Privacy Act.

The survey is divided into eight (8) blocks: Identification, Inventory, General, Administrative, Special Hazards, Chemical, Hazardous Waste & Satellite Accumulation, and Safety Equipment.

Be objective and honest in the LSA. The LSA is designed to help identify areas where improvement is needed. You and your staff are best positioned to know the hazards in your processes/environment and implement appropriate controls.

Questions or concerns? Contact ehs@fiu.edu.

Please initial below to affirm that you have the knowledge and authority to submit the LSA on behalf of your space and that you will be objective, honest, and truthful in your submissions.

Identification Block

Q2.1

The Identification block contains questions relating to identifying:

- Primary's and Alternate's Contact Information
- Shared Space Groups
- Location
- Annexes to be incorporated
- Room Use Type
- Description of Room Use

Q2.2

Identify Primary

First Name	<input type="text"/>
Last Name	<input type="text"/>
FIU Email	<input type="text"/>
Role (Job Title)	<input type="text"/>
Department	<input type="text"/>

Q2.3

Identify Alternate

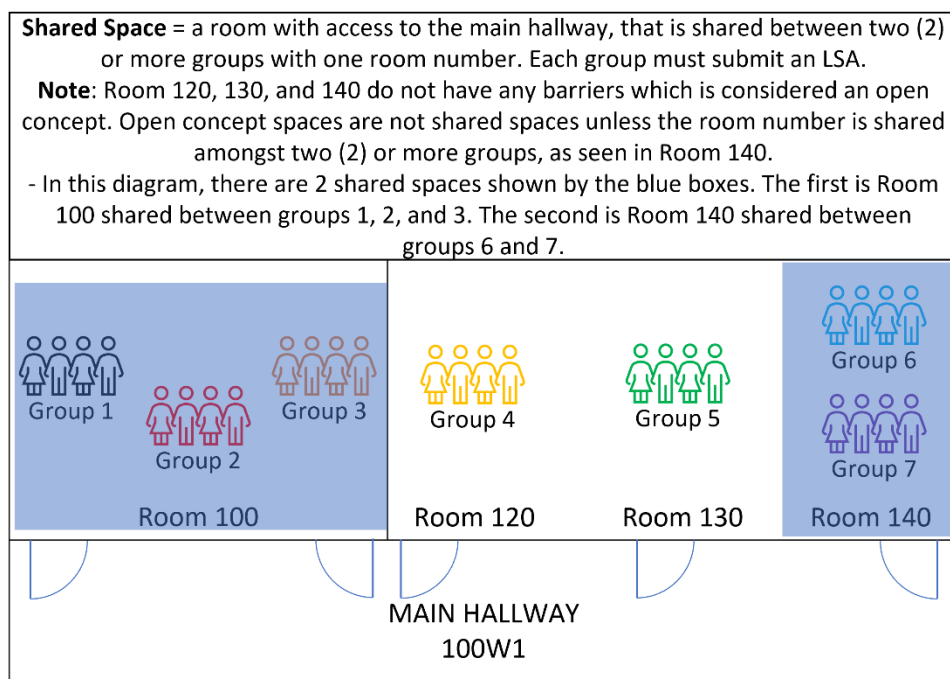
First Name	<input type="text"/>
Last Name	<input type="text"/>
FIU Email	<input type="text"/>
Role (Job Title)	<input type="text"/>
Department	<input type="text"/>

Q2.4

Is this space a shared space?

(Shared spaces are spaces that are shared by two (2) or more groups.

If multiple groups exist in the space, EH&S will require multiple submissions for that location because each group provides different hazards, operations, and administrative support. Please refer to the diagram below for additional information relating to shared spaces or contact ehs@fiu.edu with any questions.



- ☐ Yes, this space is shared amongst two (2) or more groups. Define other groups (by the last name of the group lead):
- ☐ No, the space is not shared

Q2.5

Identify Laboratory Location

(Note: only ONE room number per submission will be accepted.)

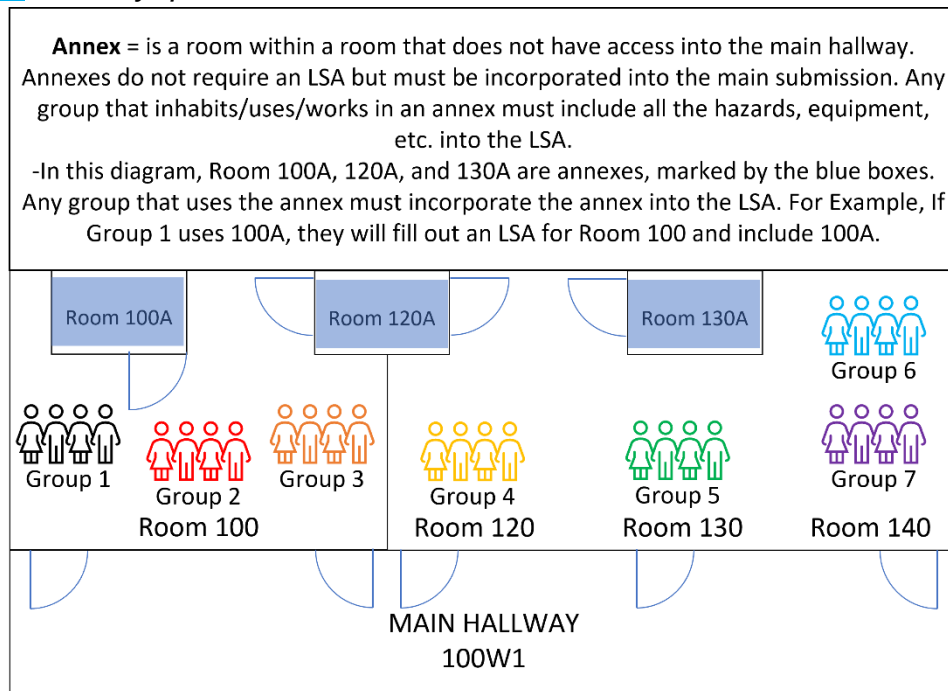
- ☐ Campus Initials (i.e., MMC, BBC, EC, CTS, NFSTC, etc.)
- ☐ Building Initials
- ☐ Room Number (ONLY ONE ROOM NUMBER)

Q2.6

Does this group utilize one or more annexes? If so, define the room number(s) for all the annexes and incorporate all hazards and equipment located in the annex into this submission.

*(Annex: an annex is a room with no access to the main corridor/hallway (a room within a room). **Annexes do not require LSAs**; however, they must be incorporated if the group uses, stores, or occupies the annex.*

Please refer to the diagram below for additional information relating to Annexes or contact ehs@fiu.edu with any questions.



☐ Yes, our group uses or stores material/equipment in the following annex/annexes:

☐ No, our group does not have an annex

Q2.7

Define space type

- ☐ Research
- ☐ Academic

Q2.8

Provide a concise description of the operations conducted within the space.

Inventory Block

Q3.1

The Inventory Block contains questions relating to the inventorying of:

- Special Hazards
- Equipment
- Safety Equipment/Controls
- Hot Work
- Sink(s)
- Current status of Space (active or inactive)

Q3.2

Select all the Special Hazards utilized, stored, produced, or found in the space:

EH&S Resources:

Biological Safety Program [Webpage](#)

Chemical Safety Program [Webpage](#)

Controlled Substance Safety Program [Webpage](#)

[Guidelines](#) for Safe Storage, Use, and Handling of Dry Ice

Laser Safety Program [Webpage](#)

Compressed Gas Cylinder Safety [Webpage](#) (includes Cryogenic Liquified Gas)

Hazardous Waste Safety Program [Webpage](#)

Radiation Safety Program [Webpage](#)

- ☐ Biological Materials
- ☐ Biological Waste Generator
- ☐ Chemicals
- ☐ Controlled Substances
- ☐ Cryogens
- ☐ Dry Ice
- ☐ Laser(s)
- ☐ Compressed Gas Cylinders
- ☐ Hazardous Waste Generator
- ☐ Nanomaterial/technology
- ☐ Radioactive Materials/Equipment (Ionizing Radiation)
- ☐ No Hazards

Q3.3

Select all the equipment present in the space:

- ☐ Freezer(s)
- ☐ Refrigerator(s)
- ☐ Sterilization Equipment
- ☐ No Equipment

Q3.4

Select all the Safety Equipment present in the space:

EH&S Resources:

Biological Safety Cabinet [Webpage](#)

[Guidelines](#) for Safe Use of Laboratory Fume Hood

Controlled Substance Safety [Webpage](#)

- ☐ Biological Safety Cabinet
- ☐ Deluge Hose/ Eye Wash / Safety Shower
- ☐ First Aid Kit
- ☐ Fume Hood
- ☐ Safe for C.S. *Display choice if "Controlled Substances" is chosen in Q3.2*
- ☐ Other (specify)
- ☐ No Safety Equipment

Q3.5

Is hot work conducted in your space?

(Hot work involves burning, welding, or similar operations capable of initiating sparks, fires, or explosions. Hot work may be performed on university property with proper permits and training. Visit EH&S' Fire Safety Hot Work Permit web page <https://ehs.fiu.edu/safety-programs/fire/guidelines-permits/index.html>.)

- ☐ Yes
- ☐ No

Q3.6

Does the space have a sink?

- ☐ Yes
- ☐ No

Q3.7

Display Q3.7 if "Freezer(s)" is selected in Q3.3

You selected Freezer(s); the following question applies:

Is the freezer(s) connected to an emergency backup outlet?

- ☐ Yes
- ☐ No

Q3.8

Display Q3.8 if "Sink(s)" is selected in Q3.6

You selected Sink; the following question applies:

Do all sinks in the space have the EH&S sticker restricting chemical discharge down the sink(s)?

(Stickers must be visible and posted at each sink. Request Stickers Restricting Chemical Discharge here: <https://ehs.fiu.edu/resources/index.html#3>.)

- ☐ Yes
- ☐ No

Q3.9

What is the current status of the space?

(Active = means the space is operational (even at a reduced capacity).

Inactive = means the space is vacant of space occupants and is not currently operational (this could be due to various reasons).

- ☐ Active
- ☐ Inactive

Q3.10

Display Q3.10 if "Inactive" is selected in Q3.9

Current Status of space: Inactive(closed)

Please explain why the space is inactive/not operational/closed:

Skip to "End of Survey" if "Inactive" is selected in Q3.9 and Q3.10 is 'Not Empty'

General Safety Block

Q4.1

The General Block contains questions relating to:

- Broken Glass/Sharps Container
- Food and Drink Consumption
- Personal Protective Equipment
- **NEW!** Visual Inspection of Space
 - Ceiling Tile, Wall, Floor Inspection
 - Evidence of Water Intrusion or Mold
 - Electrical Safety
 - Fire Sprinkler and Path of Egress Safety

Q4.2

Are proper and separate containers available to dispose of broken glass and sharps?

(Appropriate containers must be available to dispose of broken glass and sharps. Pls/Lab Managers are responsible for purchasing the appropriate broken glass containers; containers must be adequately labeled for contents.)

View EH&S's Laboratory Glassware Disposal Guidelines

<https://ehs.fiu.edu/assets/docs/lab-safety/lab-glassware-disposal-guidelines.pdf>.)

- ☐ Yes
- ☐ No
- ☐ N/A (does not apply to this space)

Q4.3

Is the lab free of evidence of food and drink consumption?

(Food and drink consumption/storage is strictly prohibited in the lab area because it presents the possibility of contamination and ingestion of hazardous materials. Food/drink should not be stored in refrigerators, shelves, cabinets, freezers, or countertops where hazardous materials are present. Refrigerators and freezers should be labeled with signage prohibiting food or drink storage.)

- ☐ Yes
- ☐ No

Q4.4

Is Personal Protective Equipment (PPE) available and in good condition for all occupants of the space?

(All space occupants, including but not limited to employees, students, volunteers, visitors, etc., must be provided with PPE for the hazards found in the space. Before distributing/providing, check the PPE for holes, wear and tear, and damages to ensure it is in good condition, and replace it if needed.)

- ☐ Yes
- ☐ No
- ☐ N/A (does not apply to this space)

Q4.5**Are all occupants of the space utilizing/wearing the appropriate PPE?**

(Prior to entering the space, all occupants must don the appropriate PPE depending on the hazards found in the space.

All users must enroll in the FIU Respiratory Protection Program for medical evaluation, fit testing, and training if respirators are required.

Request fit testing information via email to ehs@fiu.edu.)

- ☐ Yes
- ☐ No
- ☐ N/A (does not apply to this space)

Q4.6

Visual Inspection:

Are there any missing or broken ceiling tiles in the space?

- ☐ Yes, there are missing or broken ceiling tiles
- ☐ No, the ceiling tiles are all in place and intact

Q4.7

Visual Inspection:

Are there any perforations or holes in the walls?

- ☐ Yes, there are perforations or holes in the walls
- ☐ No, the walls are intact

Q4.8

Visual Inspection:

Are there any cracks in the floors?

- ☐ Yes, there are cracks in the floor
- ☐ No, the floor is intact

Q4.9

Visual Inspection:

Is there any evidence of water intrusion, mold, or visible leaks in the space?

(Contact ehs@fiu.edu to request an assessment.)

- ☐ Yes
- ☐ No

Q4.10

Display Q4.10 if "Yes" is selected in Q4.6, Q4.7, or Q4.8

You selected either missing/broken ceiling tiles, perforations in the walls/ or cracks in the floor; the following question applies:

Please define the current status:

- ☐ Ongoing but unresolved; specify work order number, or steps taken to solve the issue
- ☐ No actions have been taken; provide a brief description
- ☐ Other; explain

Q4.11

Display Q4.11 if "Yes" is selected in Q4.9

You selected 'Yes' to water intrusion/mold/visible leaks'; the following question applies:

Please define the current status:

- ☐ Ongoing, unresolved. specify work order number or provide brief description
- ☐ No Actions have been taken; provide brief description
- ☐ Other, explain

Q4.12

Visual Inspection:

Are the electrical receptacles in good condition (no cracks or chips present), and are face plates in place?

(The electrical receptacle must be in good condition with no visible damage to the face plate. All electrical receptacles must have a face plate installed.

Report damaged or missing electrical receptacles by requesting a work order with Facilities Management: <https://facilities.fiu.edu/newWorkOrderRequest-faq.htm> or call (305)348-4600.)

- ☐ Yes
- ☐ No

Q4.13

Does your lab have ground-fault circuit interrupter (GFCI) outlets installed close to a water source?

(GFCI is a fast-acting circuit breaker designed to shut off electric power in the event of a ground fault within as little 1/40 of a second [OSHA, 29 CFR 1926.404]. All electrical receptacles by the sink or open water sources (i.e., aquariums) must incorporate GFCI outlets. A portable GFCI outlet can be used if the water source is not permanently installed. Request the installation of a GFCI outlet by requesting a work order with Facilities Management: <https://facilities.fiu.edu/newWorkOrderRequest-faq.htm> or call (305)348-4600.)

- ☐ Yes
- ☐ No
- ☐ N/A (no open water sources in this space)

Q4.14

Visual Inspection:

Are all cords away from doors, walkways, and metal furniture?

(Electrical cords are fire and tripping hazards. Ensure that they are not obstructing the path of egress, including (but not limited to) doors, doorways, aisles, corridors, hallways, etc. Also, ensure electrical cords are not close to metal furniture.)

- ☐ Yes
- ☐ No

Q4.15

Visual Inspection:

Is a clearance of eighteen (18) inches minimum maintained between the ceiling and materials throughout the space?

(The Fire Sprinkler system is a fire protection measure designed to provide water supply throughout the building during an activation. Any material within this clearance space is considered an interference with the discharge pattern and can hinder the design and operation of the sprinkler system. To not impede the operation and design of the Fire Sprinkler System, there shall be a minimum clearance of eighteen (18) inches from the ceiling. As per NFPA 1 10.18.3.)

- ☐ Yes, there is a minimum clearance of 18 inches from the ceiling
- ☐ No, there are obstructions to the sprinkler system.

Q4.16

Visual Inspection:

Is the space's storage limited, not obstructing egress, and located away from entrances and exits?

(Storage must be limited to what is necessary. Excessive storage can become either a tripping hazard or a fire load hazard. A three (3) foot clearance must be maintained for all aisles and walkways. Also, no storage is permitted to block the path of egress or the entrances and exits.)

- ☐ Yes, the space is free from excessive storage
- ☐ No, the space is cluttered

Q4.17

Display Q4.17 if "No Hazards" is selected in Q3.2, AND if "No Equipment" is selected in Q3.3, AND if "No Safety Equipment" is selected in Q3.4

You did not select any special hazards, equipment, or safety controls. Are you sure you want to end this survey?

If not, utilize the back button and edit your response.

- ☐ Yes, End the Survey

Skip to "End of Survey" if "Yes, End the Survey" is chosen in Q4.17

Administrative Block

Q5.1

The Administrative Block contains questions relating to:

- Hazard Signage
- Vision Panel
- Access Restricted
- Spill Kits
- Standard Operating Procedures
- Emergency Procedures
- Safety Data Sheets
- Safety Training Records
- Refrigerator/Freezer Inventory

Note: Unless specific conditions are met, you will not see all the questions in this section.

Q5.2

Are all entry points labeled with the appropriate hazard pictogram and emergency contact information?

(The EH&S Emergency Signage Program is a mandatory initiative that ensures FIU is compliant with the Globally Harmonized System (GHS), National Fire Protection Association (NFPA), and Hazard Communication regulatory requirements.

Visit EH&S's Lab Signage web page <https://ehs.fiu.edu/safety-programs/laboratory/index.html#3>.

See OSHA's GHS pictograms

https://www.osha.gov/Publications/HazComm_QuickCard_Pictogram.html.)

- ☐ Yes
- ☐ No

Q5.3

Is the appropriate hazard signage displayed on the materials and equipment within the space?

(Signage should be appropriate for the type of hazards in the space. Signage is required on any equipment or container where the hazards are used or stored; signage must be consistent with the GHS requirements and cannot be abbreviated.

See EH&S's Chemical Hygiene Plan <https://ehs.fiu.edu/safety-programs/chemical/chemical-hygiene-plan/index.html>.

See OSHA's GHS

pictograms https://www.osha.gov/Publications/HazComm_QuickCard_Pictogram.html.)

- ☐ Yes
- ☐ No
- ☐ N/A (there are no hazards in the space) *Display if "No Hazard" is chosen in Q3.2*

Q5.4**Are the vision panels clear of all obstructions and provide a view into the space?**

(A vision panel is a window placed within a door or adjacent to a door.

Except for spaces with lasers, vision panels shall remain clear and unobstructed to allow for a clear view into the space.)

- ☐ Yes, the vision panel is clear
- ☐ No, the vision panel is obstructed
- ☐ This space has a laser, and the panel is obstructed *Display if "Laser(s)" is chosen in*

Q3.2

- ☐ There is no vision panel

Q5.5**Is the access into the space limited or restricted to authorized personnel?**

(Per FIU Security of Special Hazards Policy, access to lab areas should be restricted to lab personnel only. Lab doors should not be propped open unless lab staff is present.

Unauthorized personnel (i.e., vendors, contractors, etc.) shall not have access to the lab area unless they are accompanied by lab staff.

Check the key card access records every 4-6 months to ensure unauthorized personnel are not listed. To prevent unauthorized entry by custodial personnel when the lab is closed, place the trash bins outside the lab entrance door.)

- ☐ Yes
- ☐ No
- ☐ N/A (the space does not require limited or restricted access)

Q5.6

Does the space have spill kit(s) for all previously selected hazards (displayed below in bold)?

Display Q5.6 if “Biological Materials”, “Biological Waste Generator”, “Chemicals”, “Controlled Substances”, “Hazardous Waste Generator”, “Nanomaterial/technology”, OR “Radioactive Materials/Equipment (Ionizing Radiation)” is selected Q3.2

(Spill kits are all-in-one containers intended to quickly contain and clean up hazardous material leaks and spills as quickly as possible. Depending on the hazardous materials found within the space, multiple spill kits may be required (designed for each hazard); spill kits may be purchased or created. Check the spill kits often to make sure that they are properly stocked.

Spill kits must include all the necessary items to contain and clean up the leak/spill, including but not limited to: compatible receptacles, absorbent materials, cleaners, chemical neutralizers, and personal protective equipment.

All space occupants (prior to commencing operations, and regardless of if they directly work with all hazards) must be trained on how to use the spill kits, where the spill kits are located, how to restock the spill kit, and the appropriate procedures for clean up and reporting.

If you have any questions, please contact ehs@fiu.edu.)

Special Hazards: **Display Q3.2's selected choices**

- ☐ Yes, Spill kits are in place
- ☐ Some spill kits are in place, but some are missing
- ☐ No, there are no spill kits in place

Q5.7

Below are descriptions of the required documents for the following question.

Standard Operating Procedures (SOPs) are written instructions that detail the steps to be performed during routine procedures and include information about potential hazards, how these hazards will be mitigated, and how to troubleshoot/report incidents. SOPs are required before commencing work in the space and must be updated as hazards and/or additional operations are introduced.

Emergency Procedures must be tailored to mitigate the hazards found or presented in the space.

Emergency Hazardous Spill Procedures - procedures for containment and clean-up of minor spills.

Emergency Incident and/or Injury Procedures - procedures for responding to incidents or injuries. They should incorporate medical emergencies, how to seek medical help and how to report them to supervisors and workers' compensation.

Emergency Evacuation Procedures - procedures for evacuating the space/building immediately and minimizing the potential for hazardous conditions developed during emergencies. [Ex. a fire within the building, the evacuation is immediate, actions to secure materials and equipment must be limited to only what is absolutely necessary and minimizing the risks for first responders.]

Emergency Shutdown Procedures - procedures for securing materials and equipment and shutting down operations within a given time frame [Ex. a hurricane that is approaching allows for a couple of days/hours to prepare].

Safety Data Sheets - formally known as Material Safety Data Sheets (MSDS) is a detailed document that lists all hazards, protective measures, and safety precautions required for the handling, storing, and transporting chemicals/materials/substances/products. SDS for all materials found in the space must be produced upon request.

Q5.8

Below is a matrix for several documents required to be current, displayed, and accessible in the space; select all that apply

Selecting Up-To-Date means the documents are up to date and reflect all operations conducted and hazards found in the space.

Selecting Displayed means the documents are physically posted in the space.

NOTE: QR codes can be used to display Standard Operating Procedures (SOPs) and Safety Data Sheets (SDSs) in place of printing and posting the document; Emergency Procedures must be printed and posted.

Selecting Accessible means all space occupants have reviewed the documents (annually) and have access to this information at all times.

*All documents must be current, displayed, and accessible in the space for all space occupants. *

	Up-To-Date	Displayed	Accessible
Standard Operating Procedures for all operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
* Emergency Hazardous Spill Procedures for all hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Incident/Injury Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Evacuation Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Shutdown Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
* Safety Data Sheets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Display these choices if any of the following were selected in Q3.2:
 "Biological Materials"; "Biological Waste Generator"; "Chemicals"; "Controlled Substances"
 "Cryogenics" "Dry Ice" "Laser(s)" "Compressed Gas Cylinders" "Hazardous Waste Generator"
 "Nanomaterial/technology" "Radioactive Materials/Equipment (Ionizing Radiation)" "Paint (includes spray paint)"

Q5.9

Select all documents reviewed and acknowledged by all space occupants this year.

(Annually, Group Heads/Leads/PIs/Lab Managers must review the documents below with all space occupants to ensure expectations are communicated, changes in operations or hazards are understood, and the location of the documents is known to all space occupants.

EH&S recommends implementing an annual 'Acknowledgement receipts/log' where all space occupants must sign affirm they have reviewed the information, understand the expectations, and know where these documents are posted/displayed within the space.)

- ☐ Standard Operating Procedures
- ☐ * Emergency Hazardous Spill Procedures
- ☐ Emergency Incident/Injury Procedures
- ☐ Emergency Evacuation Procedures
- ☐ Emergency Shutdown Procedures
- ☐ * Safety Data Sheet(s)
- ☐ None are reviewed annually

**Display these choices if any of the following were selected in Q3.2:*

"Biological Materials"; "Biological Waste Generator"; "Chemicals"; "Controlled Substances" "Cryogenics" "Dry Ice" "Laser(s)" "Compressed Gas Cylinders" "Hazardous Waste Generator" "Nanomaterial/technology" "Radioactive Materials/Equipment (Ionizing Radiation)" "Paint (includes spray paint)"

Q5.10

Select all the types of required Safety Training completed by all space occupants currently.

(All space occupants must complete required safety training PRIOR to commencing work. Utilize the EH&S Laboratory Training

Matrix, <https://ehs.fiu.edu/assets/docs/training/ehsdoc607.00-required-training-laboratories.pdf>, to determine the required EH&S Training Courses.

Supervisors must provide on-the-job safety training for all hazards (procedures, equipment, etc.) and as new hazards are introduced to the space.

Additional External Training may be required depending on the use of the space, type of research conducted, special hazards within the space, etc.)

- ☐ EH&S Safety Training
- ☐ On-the-job Safety Training
- ☐ External Training

Q5.11

Are the training records for all space occupants displayed and/or accessible?

(Training records must be easily furnished upon request by all space occupants.

Note: QR codes can be generated and posted instead of printing all training records.)

- ☐ Training Records are displayed/accessible
- ☐ Some Training Records are displayed/accessible
- ☐ Training Records are NOT displayed/accessible

Q5.12

Display Q5.12 if "Freezer(s)" or "Refrigerator(s)" is selected in Q3.3

Select all that apply: Does the space have an up-to-date inventory posted on all the refrigerator(s)/freezer(s)?

(EH&S requires all refrigerators and freezers to have an up-to-date inventory of all the items/materials posted on the exterior.

Ensure the full chemical or material name is written out; no abbreviations are allowed.)

- ☐ All refrigerator inventory is current and posted
Display choice if "Refrigerator(s)" is chosen in Q3.3
- ☐ All Freezer inventory is current and posted
Display choice if "Freezer(s)" chosen in Q3.3
- ☐ The inventories are not current

Special Hazards Safety Block**Q6.1**

The Special Hazards Block contains questions relating to special hazards and will only display if specific hazards were selected in the Inventory Block. The special hazards that apply are

- Radioactive Material/Equipment
- Nanomaterial/Technology
- Laser(s)
- Biological Material/Biological Waste Generator
- Compressed Gas Cylinders

Note: Unless specific conditions are met, you will not see all the questions in this section. If no questions appear, use the arrow to progress forward.

You selected the following special hazards: *Display Q3.2's selected choices.*

Q6.2

Display Q6.2 if "Radioactive Materials/Equipment (Ionizing Radiation)" is selected in Q3.2.

You selected Radioactive Materials/Equipment (Ionizing Radiation); the following question applies.

Specify the type of Radioactive Material and/or Equipment found, stored, used, or produced in the space.

- (1. TENORM or Technically Enhanced Natural Occurring Materials: Soil, rocks, building materials (e.g., gypsum); everything contains radioactive isotopes. This material is not regulated unless it has been processed and has increased its radioactivity level due to the processing. Hence natural rocks with uranium ore deposits are not regulated, but uranium mill tailings or waste from gypsum processing are regulated as TENORM.*
- 2. Radioactive Materials: Inorganic chemicals or organic molecules containing radioactive isotopes are regulated as "Radioactive Materials." Typically sold in powder, liquid, or frozen organic form. Examples include uranyl acetate or nitrate and biomolecules tagged with P-32 or tritium.*
- 3. Sealed Sources: A sealed source is a solid source of radioactive material sealed in a solid form for safety and typically used in instruments (chemical analysis, civil engineering, medical, etc.). The most common sealed source is an Electron Capture Device (ECD) that contains a machined device containing a foil of 5 to 15 millicuries of Ni-63 used in a chemical analysis instrument. Sealed sources with radioactivity greater than or equal to 100 microcuries must have semi-annual leak testing.*

4. *Check Sources: Check sources typically contain 1-10 microcuries (but less than 100 microcuries) of radioactive material encapsulated in a small solid object. They are used in teaching and research labs with nuclear radiation detectors for calibration and for the design and construction of systems to measure nuclear radiation levels worldwide (soils, air, walls, floors, etc.).*

5. *Devices that emit X-rays: Devices that generate and emit beams of x-rays include: medical and dental devices, bone densitometers, X-Ray Diffraction (XRD), and more.*

Other devices can generate electron beams for imaging or surface analyses and indirectly generate low levels of x-rays – these devices are not regulated as X-ray devices.

If you have any of the above 5 sources of ionizing radiation, please discuss it with the Radiation Safety Officer (RSO).

For more information, contact ehs@fiu.edu or check out EH&S's Radiation Safety Program web page <https://ehs.fiu.edu/safety-programs/radiation/index.html>.)

- ☐ Technically Enhanced Natural Occurring Materials (TENORM)
- ☐ Radioactive Materials
- ☐ Sealed Sources
- ☐ Check Sources
- ☐ Devices That Emit X-Rays

Q6.3

Display Q6.3 if "Nanomaterial/technology" is selected in Q3.2.

You selected Nanomaterials/technology; the following question applies:

Specify the base material(s) of the Nanomaterial(s) located in the space (if multiple, select all that apply)

(See EPA's Nanomaterials Fact Sheet https://www.epa.gov/sites/production/files/2014-03/documents/ffrrofactsheet_emergingcontaminant_nanomaterials_jan2014_final.pdf.)

- ☐ Carbon-based
- ☐ Metal-based
- ☐ Quantum Dots
- ☐ Dendrimers
- ☐ Composite
- ☐ Other (specify)

Q6.4

Display Q6.4 if "Laser(s)" is selected in Q3.2.

You selected Laser(s); the following question applies:

Specify the laser class(es) located in the space (if multiple, select all that apply)

- ☐ Class 1
- ☐ Class 2
- ☐ Class 3R
- ☐ Class 3B
- ☐ Class 4
- ☐ Other (specify)

Q6.5

Display Q6.5 if "Biological Materials" OR "Biological Waste Generator" is selected in Q3.2.

You selected Biological Materials and/or Biological Waste Generator; the following question applies:

Select all biological material(s) that apply:

(Visit EH&S's Biological Safety web [page https://ehs.fiu.edu/safety-programs/biological/index.html](https://ehs.fiu.edu/safety-programs/biological/index.html).

Visit CDC's Select Agents and Toxins List

<https://www.selectagents.gov/SelectAgentsandToxinsList.html>.)

- ☐ Bacteria
- ☐ Biological Toxins
- ☐ Fungi
- ☐ Insects/Invertebrates
- ☐ Materials derived from animals
- ☐ Materials derived from Humans
- ☐ Non-human primates
- ☐ Parasites
- ☐ Plants
- ☐ Recombinant DNA
- ☐ Select Agents or Toxins
- ☐ Virus
- ☐ Other (specify)

Q6.6

Display Q6.6 if "Biological Materials" OR "Biological Waste Generator" is selected in Q3.2.

You selected Biological Material(s) and/or Biological Waste Generator; the following question applies:

Are any biological materials infectious?

- ☐ Yes
- ☐ No

Q6.7

Display Q6.5 if "Biological Materials" OR "Biological Waste Generator" is selected in Q3.2.

You selected Biological Material(s) and/or Biological Waste Generator; the following question applies:

Are there containers available for disposal of solid biohazardous materials?

(Biohazardous materials must be disposed of in a biohazard container in accordance with FAC 64-16E and the FIU Biomedical Waste Plan.

Disposal of the container(s) is coordinated through the EH&S Biosafety Office.

Request disposal services and/or containers via email to ehs@fiu.edu.)

- ☐ Yes
- ☐ No

Q6.8

Display Q6.8 if "Compressed Gas Cylinders" is selected in Q3.2.

You selected Compressed Gas Cylinders; the following question applies:

Are all gas cylinders adequately secured and have the FIU 'stage of use' tags?

(All gas cylinders must be secured with a wall mount bracket that includes a firm strap (i.e., polypropylene strap) or a chain. All gas cylinders must have 'stage of use' tags that indicates if the gas cylinder is full, in service, or empty.

Request additional 'Stage of Use' tags through our Sticker/label/Tag Request found here: <https://ehs.fiu.edu/resources/index.html#3>)

- ☐ Yes
- ☐ No

Chemical Safety Block**Q7.1**

The Chemical Safety Block contains questions relating to Chemical Safety.

Note: Unless specific conditions are met, you will not see all the questions in this section. If no questions appear, use the arrow to progress forward.

Q7.2

Display Q7.2 if "Chemicals" is selected in Q3.2.

You selected Chemical(s); the following question applies:

Does the space have any of the following types of chemicals?

- ☐ Carcinogen
- ☐ Peroxide Forming Material
- ☐ None of these options

Q7.3

Display Q7.3 if "Carcinogen" is selected in Q7.2.

You selected Carcinogen; the following question applies:

Are the chemical carcinogens clearly labeled?

(Chemical carcinogens should be clearly labeled (i.e., "Warning- Carcinogen may cause cancer") AND have the appropriate pictogram per GHS requirements [for carcinogens, use the Health Hazard pictogram].

See OSHA's GHS

pictograms https://www.osha.gov/Publications/HazComm_QuickCard_Pictogram.html.)

- ☐ Yes
- ☐ No

Q7.4

Display Q7.4 if "Peroxide Forming Material" is selected in Q7.2.

You selected peroxide-forming materials; the following question applies:

Is the peroxide-forming material(s) dated to show when it was received and opened?

(Peroxide-forming materials are organic materials that can react with atmospheric oxygen to form potentially explosive peroxide(s). The date of receipt must be clearly written on the container and logged on a sheet.

See EH&S's Chemical Hygiene Plan for a list of peroxidizable chemicals and guidelines for ordering, storing, and testing <https://ehs.fiu.edu/assets/docs/chemical/chemical-hygiene-plan.pdf#page=56>.)

- ☐ Yes
- ☐ No

Q7.5

Display Q7.5 if "Peroxide Forming Material" is selected in Q7.2.

You selected peroxide-forming materials; the following question applies:

Is the peroxide-forming material(s) checked for peroxides OR disposed of at least every 6 months?

(The time limit for storing peroxide-forming materials varies depending on the solvent/material. FIU requires users to check the integrity of the storage containers periodically. The container shall not be older than 6 months, or proof of inspections conducted every 3 months must be available.

See EH&S's Chemical Hygiene Plan for a list of peroxidizable chemicals and guidelines for ordering, storing, and testing https://ehs.fiu.edu/_assets/docs/chemical/chemical-hygiene-plan.pdf#page=56.)

- ☐ Yes
- ☐ No

Q7.6

Display Q7.6 if "Chemicals" is selected in Q3.2.

You selected Chemical(s); the following question applies:

Does the space have an accurate, up-to-date inventory of all the chemicals in the space recorded in the EH&S Chemical Inventory System?

(The EH&S Chemical Inventory System is a mandatory tracking system for all the chemicals found in the space. Ensure your chemical inventory is accurate in the EHS Chemical Inventory System.

To access the web-based program, visit: <https://ehsinventory.fiu.edu/>

If you need assistance, further information, or troubleshooting help, contact ehs@fiu.edu.)

- ☐ Yes, the chemical inventory is accurate in the EHS Chemical Inventory System
- ☐ No, the chemical inventory is not accurate in the EHS Chemical Inventory System

Q7.7

Display Q7.7 if "Chemicals" is selected in Q3.2.

You selected Chemical(s); the following question applies:

Are the chemical containers adequately labeled?

(Chemical containers shall be labeled with the chemical name as per the SDS; this also applies to secondary chemical containers. The chemical formula shall not be used to substitute the chemical name except for labeling the container where a small quantity of a compound synthesized in the laboratory is stored. Chemicals should be labeled per GHS requirements.

View EH&S's Hazard Communication web page <https://ehs.fiu.edu/safety-programs/chemical/hazard-communication/index.html>.

Review EH&S's Chemical Hygiene Plan for OSHA's minimum labeling requirements https://ehs.fiu.edu/_assets/docs/chemical/chemical-hygiene-plan.pdf#page=20.)

- ☐ Yes
- ☐ No

Q7.8

Display Q7.8 if "Chemicals" is selected in Q3.2.

You selected Chemical(s); the following question applies:

Are the chemicals stored in appropriate containers?

(Containers shall be in good condition with no sign of leakage, compatible with the chemical stored in them, labeled per GHS requirements, and have a lid.

Review EH&S's Chemical Hygiene Plan for Chemical Compatibility Storage Guidelines

<https://ehs.fiu.edu/assets/docs/chemical/chemical-hygiene-plan.pdf#page=72.>)

- ☐ Yes
- ☐ No

Q7.9

Display Q7.9 if "Chemicals" is selected in Q3.2.

You selected Chemical(s); the following question applies:

Are the chemicals stored according to hazard category and compatibility (not alphabetically)?

(For storage requirements, refer to the chemical's/material's SDS. EH&S recommends storing chemicals on low shelves following best laboratory practices.

Review EH&S's Chemical Hygiene Plan for Chemical Compatibility Storage Guidelines

<https://ehs.fiu.edu/assets/docs/chemical/chemical-hygiene-plan.pdf#page=72.>)

- ☐ Yes
- ☐ No

Hazardous Waste & Satellite Accumulation Area (SAA) Safety Block

Q8.1

The Hazardous Waste & Satellite Accumulation Area Safety Block contains questions relating to:

- Hazardous Waste Safety
- Satellite Accumulation Area Set-up

Note: Unless specific conditions are met, you will not see all the questions in this section. If no questions appear, use the arrow to progress forward.

Q8.2

Display Q8.2 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

Does this space have a Satellite Accumulation Area?

(Hazardous Waste is waste with properties that make it dangerous or capable of harming human health or the environment.

DO NOT DUMP ANY CHEMICALS OR CHEMICAL BYPRODUCTS DOWN THE SINK; e.g., ethanol, acetone, etc.

*Any hazardous waste production, even a single, small bottle, **requires establishing a Satellite Accumulation Area** within the space.)*

- ☐ Yes
- ☐ No

Q8.3

Display Q8.3 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

You selected Chemicals and/or Hazardous Waste Generator; the following questions apply:

Does the Satellite Accumulation Area (SAA) have the required signage, documentation, and perimeter markings?

(The SAAs must be labeled with the EH&S SAA signage, have the required documentation posted, and have the perimeter visibly indicated/marked/taped.

Visit the EH&S Hazardous Waste web page to obtain the required documentation

<https://ehs.fiu.edu/safety-programs/environmental-compliance/index.html#3>.

Refer to EH&S's Laboratory Hazardous Waste Satellite Accumulation Area Requirements

<https://ehs.fiu.edu/assets/docs/environmental-compliance/lab-waste-satellite-accumulation.pdf>.

Request Hazardous Waste Labels from EH&S found here:

<https://ehs.fiu.edu/resources/index.html#3>)

- ☐ Yes
- ☐ No
- ☐ No established SAA in the space

Q8.4

Display Q8.4 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

Is the SAA located near the point of generation and away from sinks and drains?

(Waste must remain at the point of origin; hazardous waste shall NOT be transferred to another lab.)

Refer to EH&S's Laboratory Hazardous Waste Satellite Accumulation Area Requirements

<https://ehs.fiu.edu/assets/docs/environmental-compliance/lab-waste-satellite-accumulation.pdf>.)

- ☐ Yes
- ☐ No
- ☐ No established SAA in the space

Q8.5

Display Q8.5 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

Is hazardous waste kept in secondary containment?

(The secondary containment must be compatible with the material and should be able to hold 110% of the hazardous waste. No other objects or materials shall be stored in the SAA.)

- ☐ Yes
- ☐ No
- ☐ No established SAA in the space

Q8.6

Display Q8.6 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

Do separate secondary containers segregate incompatible waste?

(Only keep compatible waste in the same secondary container within the SAA to prevent potential chemical reactions. If waste is incompatible, use a separate secondary container for each incompatible waste.)

- ☐ Yes, waste is segregated
- ☐ No
- ☐ No established SAA in the space

Q8.7

Display Q8.7 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

Are the containers in the SAA in good condition?

(All containers in the SAA shall be sealable, non-leaking, and chemically compatible. Containers in the SAA shall be free of surface stains, chemical residue, and signs of leakage.)

- ☐ Yes
- ☐ No
- ☐ No established SAA in the space

Q8.8

Display Q8.8 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

Are all the containers in the SAA closed when they are not being used?

(All waste containers shall be closed when unattended to prevent spills or exposures.)

- ☐ Yes
- ☐ No
- ☐ No established SAA in the space

Q8.9

Display Q8.9 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

Are hazardous waste containers properly labeled?

(Hazardous waste containers must display the EH&S "Hazardous Waste" label (yellow sticker).

Request Hazardous Waste Labels here: <https://ehs.fiu.edu/resources/index.html#3>.

See EH&S's Laboratory Hazardous Waste Satellite Accumulation Area Requirements for Waste Container Labeling <https://ehs.fiu.edu/assets/docs/environmental-compliance/lab-waste-satellite-accumulation.pdf>.

Note: The "Accumulation Start Date" will be filled when the hazardous waste is being transported for disposal.)

- ☐ Yes
- ☐ No
- ☐ No established SAA in the space

Q8.10

Display Q8.10 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

Is the waste stored in the Satellite Accumulation Area (SAA) less than 55 gallons?

(SAAs are not permitted to store more than 55 gallons of hazardous waste. If acutely hazardous waste is generated, no more than 1 gallon may be stored.)

- ☐ Yes
- ☐ No
- ☐ No established SAA in the space

Q8.11

Display Q8.11 if "Chemicals" OR "Hazardous Waste Generator" is selected in Q3.2.

Are waste bottles filled to a safe level?

(Waste bottles, drums, and containers must not be filled to the top. Overfilled containers will cause spills.)

- ☐ Yes
- ☐ No
- ☐ No established SAA in the space

Safety Equipment Block

Q9.1

The Safety Equipment block contains questions relating to:

- Emergency Wash Units; eye wash, deluge hose, safety shower
- Chemical Fume Hood
- Biological Safety Cabinet
- Sterilization Equipment

Note: Unless specific conditions are met, you will not see all the questions in this section. If no questions appear, use the arrow to progress forward.

Q9.2

Display Q9.2 if "Deluge Hose/ Eye Wash / Safety Shower" is selected in Q3.4

You selected Emergency Wash Unit(s); the following question applies:

Is the emergency wash unit(s) free from all obstructions (available/accessible)?

(The path to and around the emergency wash unit must not be obstructed (3 feet of clearance is observed).)

- ☐ Yes
- ☐ No

Q9.3

Display Q9.3 if "Deluge Hose/ Eye Wash / Safety Shower" is selected in Q3.4

You selected Emergency Wash Unit(s); the following question applies:

Does the emergency wash unit(s) have a sign above it indicating the location?

(All eyewashes, safety showers, and deluge hoses must be identified with a highly visible sign above the unit's location.

If your space does not have a sign indicating the unit's location, request the installation through a work order with Facilities

Management: <https://facilities.fiu.edu/newWorkOrderRequest-faq.htm> or call (305)348-4600.)

- ☐ Yes, there is a sign
- ☐ No, there is no sign

Q9.4

Display Q9.4 if "Fume Hood" is selected in Q3.4

You selected Chemical Fume Hood; the following question applies:

Has the chemical fume hood been certified within the past year?

(EH&S requires all fume hoods to be certified annually; the certification's results are recorded on the face of the fume hood.

Report unit(s) without a current annual certification ehs@fiu.edu.)

- ☐ Yes
- ☐ No

Q9.5

Display Q9.5 if "Fume Hood" is selected in Q3.4

You selected Chemical Fume Hood; the following question applies:

Is the fume hood(s) clear of excessive storage?

(Do not permanently store any chemicals inside the fume hood. Remove all items not required for procedures in progress; keep the materials in the fume hood to a minimum, and do not allow them to block vents or airflow.)

- ☐ Yes
- ☐ No

Q9.6

Display Q9.6 if "Biological Safety Cabinet" is selected in Q3.4

You selected Biological Safety Cabinet; the following question applies:

Has the biological safety cabinet (BSC) been certified within the past year?

(EH&S requires BSC to be certified annually; the certification's results are recorded on the face of the BSC.

Report unit without current annual certification ehs@fiu.edu.)

- ☐ Yes
- ☐ No

Q9.7

Display Q9.7 if "Biological Safety Cabinet" is selected in Q3.4

You selected Biological Safety Cabinet; the following question applies:

Are decontamination procedures available for the BSC and any items/materials/equipment within?

(Decontamination procedures must be provided for all work surfaces, equipment, and other potentially contaminated material(s).)

- ☐ Yes
- ☐ No

Q9.8

Display Q9.8 if "Sterilization Equipment" is selected in Q3.4

You selected Sterilization Equipment; the following question applies:

Has the Sterilization Equipment been certified within the past year?

(Sterilization equipment must be serviced and certified annually.)

- ☐ Yes
- ☐ No

End of Survey Block

Q10.1

You have reached the end of the Laboratory Self Audit. Select 'Submit LSA' to complete the survey or utilize the back arrow to make edits.

☐ Submit LSA