



Principal Investigators Lab Assignment Requirements with EHS

The following information provides a brief institutional guidance on lab assignment requirements for Principal Investigators (PI). It identifies priorities for laboratory and field safety programs and promotes the use of safety procedures and guidelines in UCF research and teaching. The Laboratory Safety Manual presents a broad outline on these requirements.

All laboratories at UCF require the following:

- **Chemical Inventory** – Each lab must maintain an up-to-date chemical inventory for all chemicals with a NFPA rating of 2 or higher in any category. Upon purchase of new chemicals, contact Sandra Hick (Sandra.hick@ucf.edu) to obtain chemical inventory bar code labels. When the labels have been received, apply the bar code label to each container; then, enter the bar code and relevant chemical information into the EHS chemical inventory database. New chemicals should be entered into the database within five business days of receipt.
- **Safety Data Sheets (SDS)** – Every hazardous substance in the lab must have an available SDS. To eliminate the need for hardcopies, UCF has a subscription to MSDSONline. Contact EHS at ResearchSafety@ucf.edu for log in information. Note: SDSs that are maintained electronically must be available at all times; it is therefore necessary to have a backup system (such as a battery backup and an external USB drive with the appropriate documents) in place in case of a power failure or network connection failure.
- **Emergency Action/Evacuation Plan** – An emergency/evacuation plan must be posted near the laboratory exit(s). Blank emergency/evacuation form may be downloaded by selecting this link: [Laboratory Emergency/Evacuation Plan](#)
- **Laboratory Hazard Sign** – Each entrance to your laboratory must have a laboratory hazard sign listing your lab's hazards, required PPE, the NFPA diamond, and relevant contact information. A request for a laboratory hazard sign can be submitted here: <https://ehs.ucf.edu/lab-sign-request> Upon receiving the request, EHS will generate your sign and post it outside of your lab.

Note: Laser labs are required to have separate Class 3B and 4 Laser Danger signs that list all lasers by laser types, wavelengths, and OD levels.

(Class 3B): [Class-3B-Danger-Sign-Template](#)

(Class 4): [Class-4-Danger-Sign-Template](#)

Labs with Class 3B and 4 lasers must also have a lighted indicator sign on the outside of the lab that notifies anyone entering the lab when a laser is in use.

Radiation labs require a "Notice to Employees" form (http://www.floridahealth.gov/environmental-health/radiation-control/radmat/_documents/notice-to-employees-3-01.pdf) posted at or near the entrance of the lab.



- **Standard Operating Procedures (SOPs)** – Laboratory-specific SOPs should be maintained for the use of particularly hazardous substances or equipment. Any deviation from the minimum PPE requirements must also have a corresponding SOP detailing the reasons for the deviation. Additionally, all BSL2 or above labs are required to have SOPs immediately available detailing a decontamination plan for each hazardous biological substance the lab maintains. A blank SOP template can be obtained by contacting EHS. In addition, EHS will assist you in determining the requirements for your SOP at your request.
- **A Laboratory Safety Manual (LSM)** – The LSM is available for download on the EHS website. A hardcopy, provided by EHS, must be maintained and readily available in every laboratory. The LSM is a reference manual containing information on a important safety topics – as a new PI, you should take the time to familiarize yourself with its contents. The LSM is where you should maintain records of inspections, personnel training documents, laboratory and equipment specific SOPs, chemical inventory lists, and SDS documents. If your lab works with radioactive materials, a copy of the Radiation Safety Manual (provided by EHS) must be kept on hand as well.

Start-up Procedures

To obtain laboratory registration and a chemical permit, PIs must complete a Laboratory Hazard Assessment Tool (LHAT) survey and have a current chemical inventory entered into EHSA, the online software provided by EHS. You can find a tutorial for the LHAT [here](#).

EHS will conduct a laboratory safety PI orientation for all new PIs. We will work with you to offer assistance on setting up your laboratory, establishing your SOPs, and defining your control methods in order to prevent hazardous materials exposures. Other topics to discuss include:

- Safety training requirements
- Rules and regulations
- Storage and housekeeping
- Required safety equipment and PPE
- Equipment set-up
- Hazardous waste management
- Spill and emergency response plans

EHS must be contacted prior to work being conducted, specifically any time a PI sets up, moves, extensively remodels or vacates a laboratory space so that it can be determined if a laboratory closeout is required. If renovation to existing laboratory space includes changes to building equipment or design (ventilation, electrical, structural), Planning Design and Construction must be contacted in addition to EHS. A list of PDC forms can be found here: <https://www.fp.ucf.edu/resources/contract-documents/>.

Training

PI Training

New PIs must contact EHS in order to schedule a one-on-one training session with the Laboratory Safety Coordinator, Sean Brennan (Sean.Brennan@ucf.edu), or another senior safety member. You will receive



specific information concerning the UCF safety program, as well as assistance in safely setting up and maintaining your laboratory environment. PIs are also encouraged to take the online Laboratory Safety Orientation courses required for lab workers in order to understand the information their workers are receiving and determine what kind of additional training is required.

Lab Worker Training

Initial training

Completion of the initial laboratory safety training is required for working in a UCF laboratory. All lab workers are required to take the Laboratory Safety Orientation Online course as well as attend a virtual Laboratory Safety Orientation Practical. Lab workers who will be working with biologicals must additionally take the online Biological Safety Orientation Online course and attend a Biological Safety Practical in-person.

Radiation workers will require additional training comprised of the Radiation Safety Orientation for Radioactive Materials Users online course as well as a Radiation Safety Practical for Radioactive Materials Users.

Laser workers will require the Laser Safety Orientation online course.

Lab workers who will not be working with biological materials, radiation, or lasers are still free to take the online training sessions. A special course, Radiation Safety Awareness, is offered for personnel who will be working in labs containing radioactive materials (but will not be working with these materials).

Ongoing training

Lab workers will be required to take an annual Laboratory Safety Refresher Online course which is due one year from the date of the completion of the Laboratory Safety Practical. If this course is not completed within six months of the refresher course due date, the worker will be required to retake both the initial online training as well as the practical session.

On the job training

Laboratory workers should receive on the job training for all laboratory-specific procedures, hazardous materials, and equipment. Some training categories include:

- Appropriate PPE
- Restricted activities
- Emergency procedures and evacuation routes
- Location of safety supplies (first aid kits, spill kits, fire extinguishers, safety showers, eye wash stations, etc.)
- Decontamination procedures
- Requirements for transport of chemicals
- Waste disposal procedures

All training must be documented and retained in the Laboratory Safety Manual (LSM). Documents should include who was trained, who conducted the training, when the training occurred and what type of training occurred. Appendix B of the LSM provides blank employee training records for your use.



Inspections and Compliance

EHS conducts annual all-inclusive inspections of each UCF laboratory. A copy of the inspection checklist can be found in Appendix C of the LSM. Principal Investigators are encouraged to perform monthly self-inspections of their laboratories to ensure compliance (Appendix D of the LSM contains a self-inspection checklist). Additional inspections conducted by EHS include:

- Quarterly radioactive material inspections
- Biannual biological, radiological, and DEA/DBPR-controlled substance inspections

Following inspections, a PI or designee will receive a report identifying laboratory deficiencies and areas for improvement. These items must be corrected within 30 days of the receipt of the report. If the issues are unable to be corrected within that time frame, you must submit a written corrective action plan to EHS detailing how the issues will be solved and the expected date of resolution.

Any deficiencies that pose an immediate danger to life or health (IDLH) must be corrected immediately.

Waste Management

Waste pickup

To have your waste picked up, fill out a waste pickup request located at <https://ehs.ucf.edu/hazardous-waste-pick-up-request>. Click the EHSA log in button from the EHS webpage, followed by the "Chemical or Radioactive Waste Pickup Request" link. All waste requires a Hazardous Waste label filled out with the following information:

- Full chemical name(s) (no abbreviations or acronyms)
- Percent composition of the waste constituents
- Pick up request #
- Waste hazard classification
- Hazardous waste or non-regulated waste selection

Waste should be accumulated in a designated and clearly labeled Satellite Accumulation Area. All waste must be properly segregated from incompatibles, placed in a secondary container able to accommodate 110% of the volume of the largest container, the exterior of the container must be free of any residue, container must be in good condition, container must be compatible with the contents, and a cap must be able to tightly seal the container. If these requirements are not met, the waste may not be picked up. It will then be the responsibility of the PI to correct any issues and resubmit the request for pickup.

ReChem

If you have unneeded chemicals that are in usable condition, they can be added to the university's surplus chemical redistribution (ReChem) program. Information on how to submit a chemical for ReChem is located here: <https://ehs.ucf.edu/chemical-safety>.

Chemicals can also be transferred to other laboratories within the department. The container's new room location and PI must be updated in EHSA when chemicals are transferred.



Contact EHS if:

- A major spill (typically over 4 L or a particularly hazardous substance) occurs;
- An injury, exposure, or near-miss occurs;
- Significant equipment damage occurs;
- RAM is lost or missing;
- DEA controlled substances or prescription drugs are lost or missing;
- A fume hood issue is detected (no/low flow, alarm going off in error, etc.)
- You have any other safety questions or concerns

EHS Provides:

- Chemical and RAM spill kits (the PI is responsible for providing biological spill supplies, hydrofluoric acid spill kits, and other specialized spill kits where applicable);
- Laboratory Safety Manual and Radiation Safety Manual hardcopies;
- Laboratory Hazard Signs;
- Waste and warning labels;
- Exposure monitoring;
- Respirator fit tests;
- A multitude of training courses including fire safety, etc. (a full list of courses can be found here: <https://ehs.ucf.edu/training>; more information on training can be obtained by contacting the Training Coordinator at EHSTraining@ucf.edu.)