HPMI Policies and Procedures 2019-20

The High-Performance Materials Institute (HPMI) is a leading center in the materials R&D. HPMI consists of multidisciplinary professional researchers: students, staff and faculty. HPMI is dedicated to the following mission:

- Become a leader in developing cost-effective high-performance composites and multifunctional nanomaterials and product prototypes.
- Develop an interdisciplinary research team with a wide range of technical backgrounds for conducting research towards making high-performance materials scalable, affordable and energy efficient.
- Develop unique capabilities for concept-prototype development, nanomanufacturing, advanced manufacturing.
- Establish a leading institute for undergraduate and graduate study and degree production in the related areas.
- Accelerate technical transfer and commercialization of the developed technologies to create local and national impacts.

Fulfilling our mission requires setting standards of excellence in professionalism and efficiency that will lead to a productive, safe and enjoyable working environment. Fulfilling our mission will also ensure that HPMI researchers further their careers in challenging and rewarding future employment.

The following standards are established to ensure a safe and productive working environment. This should also be considered as part of the professional training, which is expected in industry.

1. Laboratory and Building Safety

All HPMI personnel and personnel utilizing HPMI or MRB labs and equipment must attend the FSU Environmental Health and Safety (EH&S) Hazardous Waste Awareness/Introduction to Laboratory Safety/Hazard Communication training and complete the online Compressed Gas Safety Training course (https://safety.fsu.edu/sections/trainingonline-compressedgas.php) within two months of being granted access and then at least once every 12 months either attend the training or complete the online refresher training. Dates for this training and other training offered by EH&S can be found at their training website https://safety.fsu.edu/sections/training.php. Additional safety information may be found at the online FSU Laboratory Safety Manual link at the EH&S website www.safety.fsu.edu.

a. In an emergency, call 911 immediately. Ensure you clearly identify your location. You are located at the Materials Research Building, not HPMI. HPMI is a research center located at MRB.
b. Exit the building immediately at the sound of a fire alarm, and assemble in the grassy area on the northwest side of the building to avoid any potential explosion or emergency vehicles.
c. In the event of tornados, stay away from windows. Take refuge in the main hallway.
d. In preparation of an active shooter, learn and review the “run, hide, fight” plan, as shown in the FSU Police training film (http://news.fsu.edu/news/university-news/2018/07/18/fsu-police-produce-educational-active-shooter-video).
e. Report any injury, accident, unsafe condition or “near miss” to your supervisor and operations director as soon as possible. In addition, this may also be reported at the EH&S website.
f. Become familiar with the location and operation of safety equipment like safety showers and fire extinguishers. Know the locations of the closest telephones and fire alarms.
g. If you will be working after hours in any lab, obtain written email authorization from your PI advisor, first notifying the advisor with information regarding when you will be working, exactly what you will be doing and who you will be working with if involving something potentially dangerous. This should include any equipment or chemicals being used so the PI can determine if special precautions should be taken. This authorization should be renewed at least once a week, including any updates.
h. If operating any equipment that will generate at temperatures greater than 300 °C after 5:30 pm, a responsible person must remain in the building and check on the equipment at least once every 30 minutes. Notify your PI advisor and Mr. Allen via email regarding the equipment in operation. One person may monitor multiple equipment, but the person must be familiar with the equipment and the experiment being monitored.
i. Undergraduates should never work in the labs alone, especially after hours.
j. Follow a written protocol for any experiment that includes emergency response procedures. If a protocol does not exist, notify your PI advisor. Review the Hazard analysis – risk assessment and the risk assessment template on the resource page of the HPMI website. PI supervisors are responsible for ensuring that each lab worker is provided safety training specific to the hazards of the laboratory operations.

k. Read and have readily available SDS sheets for any chemical you are using. Most SDS sheets are available at https://pubchem.ncbi.nlm.nih.gov.Review other resources as needed to obtain safety information. Understand the hazardous properties of chemicals and where to store based on its potential hazard.
l. Know what to do if a chemical exposure occurs. Know what to do in case of a chemical spill. Know where chemical spill kits are located and how to use them. Clean up chemical spills only if safe. Call 911 if the spill is hazardous and cannot be contained.
m. Ensure chemicals are properly stored based upon potential hazards.
n. Wear necessary personal protective equipment including safety glasses, gloves, and lab coats while operating equipment or working with chemicals. Safety glasses should be worn in labs where potentially hazardous equipment, materials or chemicals are present.
o. Clearly mark all beakers and containers indicating the contents. Avoid marking the lids of the containers since they may become separated from the container.
p. Parafilm covers on containers should not used for more than one day.
q. Place sharp objects, such as razor blades or needles, in a Styrofoam holder when not in use.
r. Do not travel in an elevator with a compressed gas cylinder. Place the cylinder in the elevator and take to the stairs to remove the cylinder or arrange to have someone meet the elevator on the floor.
s. Hazardous waste (HW):
    i. No chemical waste can be disposed of in a drain.
    ii. Dispose of waste in the proper container.
    iii. Clearly label the specific waste that is being disposed of on the HW container label.
    iv. Ensure the tops of HW containers are securely closed.
    v. When container is close to being full, call 644-0971 or EH&S website for pickup. Do not remove the container from the lab.
t. Do not reuse disposable gloves. Dispose of gloves in the trash. Do not leave the gloves on tables. Remove gloves by pulling the glove from the wrist to ensure what was the exterior of the glove stays on the inside. This prevents contaminating your bare hands.
u. Always wear long pants and closed-toe shoes (no sandals) in the labs.
v. Ensure anyone around your equipment is wearing the proper safety equipment and observing safety procedures.
w. No eating, drinking or smoking in the labs, unless the labs have been designated for eating and drinking by Environmental Health and Safety.
x. Restrict and control contact with nanotubes and do not allow contact with unprotected skin, especially in the powder or aerosol form. Ensure nanotubes do not become airborne in an unprotected area. Only work with nanotube particles that are not in a liquid or a bulk form in a fume hood.
y. Do not use extension cords or power strips in series.
z. Keep your work area safe and clean. Prior to leaving ensure your work area and lab is clean, including:
    i. Dispose of razor blades in the proper receptacle.
    ii. Dispose of disposable gloves in the trash.
    iii. Disconnect any extension cords and remove any item that may be a trip or fire hazard. Extension cords are for temporary use only must be removed when finished working with equipment.
    iv. Minimize combustible materials, for example excess paper and cardboard boxes (Dispose of cardboard boxes by flattening the boxes and placing them by the dumpster).
    v. Dispose of broken glass in the cardboard boxes marked for broken glass. These boxes shall not be used for other trash or glass that is not broken.
    vi. Clean sinks and any common areas.

Violations of these rules are grounds for dismissal from the program.

2. Laboratory rules and ethics

a. Contact the operations director prior to ordering any large equipment item or equipment requiring special connections.
b. Each equipment item is assigned to an HPMI researcher who serves as the equipment manager.
c. The equipment manager shall train and document HPMI personnel as certified users. The certified user list will be attached to log book or available on a website.
d. Receive training from the specific equipment manager on any equipment or device in any HPMI

labs prior to using.

e. Equipment users must be certified and use the equipment logbooks to keep accurate records of all dates and times in which the equipment is in use. Start the logbook entry prior to starting work.
f. Improper use, failure to keep workspace and equipment clean, or misconduct may result in disciplinary action including termination from the program. Gross misconduct or malicious misuse of equipment will result in termination and possible legal prosecution.
g. Equipment use not related to FSU related research projects must be approved by a PI or the operations director.
h. Non-HPMI personnel using HPMI equipment must have prior approval. See the request form for training and certification on the resource forms of the HPMI website.
i. Do not disconnect or remove lab equipment or computers.
j. Report broken equipment to the lab engineer, Jerry Horne. Label the equipment as broken and make entry in the logbook. Do not attempt to operate or repair equipment unless you are certified.
k. All unattended research setups must have your name and contact information clearly visible. When using a fume hood, write on the glass with grease pencil the last date used, your name and contact number.
l. For energy efficiency and safety, close fume hoods and snorkel exhausts when not in use, and do not raise hoods above the designated height.
m. All equipment, tools and materials are shared, but these resources are assigned to different groups and researchers for management purposes. Obtain permission to use equipment, tools or materials not assigned to you.
n. Provide only constructive comments to other researchers and be respectful to the work of others.
o. Do not stop or disturb other people's experiments or take another person's tools or supplies without permission, unless due to safety concerns.
p. For major equipment and tools, the responsible researchers must coordinate times of use to ensure that all projects have access to resources.
q. Use lab equipment and computers for instructional or research purposes only. Do not copy any computer programs. Do not save your personal programs or data to the laboratory computers. Do not install any software.
r. Laboratory notebooks are available. These notebooks are assigned based on the recommendation of your advisor, but remain the property of HPMI and must be returned prior to leaving HPMI.
s. Prior to leaving HPMI, complete the checkout sheet found on the HPMI website resource page.

Violations of these rules are grounds for dismissal from the program.

3. Materials Research Building rules and information

a. For training, safety and security, most labs have cameras that are in operation. These cameras are constantly recording, but are not monitored.
b. Clean lab coats are available in MRB 144. The coats should be periodically placed in the bin in 144 for cleaning. Note that the chute for the bin is located at the top
c. Do not wear lab coats or gloves in the lounge area or outside of the laboratory wing of the building. Use the service elevator (MRB 138/238) if you must go to another floor when wearing gloves, lab coat or carrying samples.
d. To protect the floor of the atrium, never slide chairs or tables and avoid taking equipment or supplies through the atrium. Use the loading dock entrance for bringing in equipment and supplies, when possible.
e. While you may eat and drink in designated areas, ensure these areas remain clean.
f. The lounge is available as a privilege. Failure to keep the area clean may result in being restricted from the lounge or dismissal from HPMI. Keep the refrigerator clean and do not keep bulk items in the refrigerator.
g. No smoking within 50 feet of the building.
h. Cubicles and desks are assigned by the HPMI director on a priority basis of Staff, Post-Docs, Doctoral students, Masters students and undergraduates. Do not use vacant cubicles.
i. If you move furniture, ensure you move it back to the original location.
j. Do not post messages, signs or banners on walls.

4. Security and sharing information

a. Prior to inviting visitors or receiving visitors, especially foreign visitors or visiting professors, ensure you contact Frank Allen and Stephanie Salters. This also ensures a meeting space, proper agreements and welcoming can be arranged. In addition, we want to keep a record of visitors.

b. Do not open the large bay door or prop open a perimeter door after working hours without notifying FSU police (644-1234). Police will respond when doors are left open after hours.
c. Lab doors should not be propped open. However, in cases where you must move from lab to lab carrying samples, you may leave the side extension door open.
d. Your FSU ID card serves as your access to the building and labs. Access for labs is assigned by W. Frank Allen based upon recommendation and approval of the researcher's advisor.
e. You should not let anyone into any locked areas at any time. Keep in mind that people who previously have had access may have had their access removed. Best practice is to refer the person to the administrative office (MRB 101) or contact the authorized person the visitor is requesting to see to have the authorized person escort the visitor.
f. Everyone should swipe his or her own card when entering after hours. Be aware of "piggy-backers," meaning other people entering the building or a lab after you enter. The person swiping the card will be the person recorded and may be held responsible for any damage.
g. The last person to leave the laboratory must ensure that doors are locked and equipment is turned off (unless designated by another researcher to remain in operation).
h. You should be proud of your research, and we encourage you to inform people about HPMI and your work. However, many of our research projects are proprietary and specific technical details should not be shared with others without proper agreements. As a member of a research laboratory, you have an obligation not to discuss, share or pass on any proprietary or detailed information to others outside of your research group, except with the permission of your advisor and the director. An inappropriate or inadvertent release of protected information may result in punitive consequences. Fla. Stat. 112.313(8) states that no employee may disclose or use information not available to the general public which was gained because of that employee's position for personal benefit or for the personal benefit of another person or business entity. If anyone asks detailed technical questions, consult with your advisor and W. Frank Allen (fallen@eng.famu.fsu.edu) for guidance.
i. If you work with projects and/or materials designated as "export control," you must complete the online courses Introduction to Export Compliance and Export Compliance for Researchers Parts I and II found at www.research.fsu.edu/research-compliance/training/citi-login-instructions/export-controls

5. Materials and supply ordering procedures

a. PLAN AHEAD – obtaining supplies will take time. Identify materials required and order early.
b. Items costing less than $1,500 can be ordered with a single quotation. Items ranging in cost from $1,500 to $25,000 require two competitive quotes (quotes from other vendors) in addition to the preferred vendor's quote. Items costing more than $25,000 should be handled by their advisor.
c. Visit the resource page at HPMI website (www.hpmi.net) to obtain the form for ordering supplies and for supplemental information.
d. Keep records of orders (vendors and items and dates) that you have submitted for your future reference in the event that follow up inquiries are necessary.

I certify that I have received, read, understand and agree to comply with the HPMI Policies and Procedures for 2019-20.

Signature: _____

Print Name: _____

Email: _____

Contact phone #: _____

Date: _____

I agree to have my photograph or image used for publicity purposes:

_____

(Signed)

I understand that for training, safety and security, most labs have cameras that are in operation. These cameras are constantly recording, but are not monitored:

_____

(Signed)

Research Advisor Name: _____

Research Advisor's Signature: _____