



# Department of Biomedical Engineering Scott Hall Handbook

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## **I. Governance**

BME space in Scott Hall is managed by the Head of the Department, the Business Manager, and the Laboratory Manager, in consultation with a Steering Committee that consists of the above members in addition to BME core faculty members whose research is conducted primarily in Scott Hall and two members of graduate students or research staff who perform research primarily in Scott Hall.

Responsibilities of the Steering Committee include:

- Setting and modifying policies
- Updating this Handbook to reflect changes in policies
- Overseeing operation of the third and fourth floor of Scott Hall
- Approving the access of sponsored researchers
- Recommending actions against violators of policies

Card access and keys are managed by the Assistant to Department Head, who maintains an Access database, sets card access, and issues keys upon notification of the Business Manager or Department Head. The Assistant to Department Head also collects returned keys and manages key stocks.

## **II. Management of the Office Floor**

### **a. Card and Key Access to the Office Floor**

The fourth floor is open to the university community 8:30am to 5pm during weekdays. Unlimited card access to the floor is granted to BME core faculty, researchers with an office or desk assignment on the floor, approved students performing full-time summer research, and all BME PhD students for the preparation of degree examinations in the collaboratory. Those without unlimited card access must leave the floor by 5pm.

All members with card access must share the responsibility to keep unauthorized persons out of the floor. No locked door may be propped open for any periods of time. Card access may be revoked for those who commit serious/repeated violations of floor policies.

Temporary card access may be granted for a single day by the Business Manager for other members of the CMU community to borrow the large conference room for business use on an as available/justified basis.

### **b. Assignment of Student Desks**

Desks in student office are assigned only to BME students who have registered for 20 or more units of research to be conducted on the third or fourth floor of Scott Hall, and without a desk assignment elsewhere on campus.

Students who perform research in the third floor laboratory but with fewer than 20 units of research may, upon agreement of the faculty advisor, use unassigned desks during business hours in the office(s) where the research group occupies. All items must be removed by 5pm when the student must exit the floor.

Students who perform full-time research during the summer may, upon agreement of the faculty advisor, use unassigned desks in the office(s) where the research group occupies. All items must be removed at the end of the summer.

Keys to the office and desk are issued only to those with a desk assignment. All keys must be returned to the Assistant to Department Head as soon as desk assignment expires.

Faculty advisor of students who receive desk assignment should work with the Business Manager or Graduate Program Administrator to verify the number of research units and to identify an available desk. The Graduate Program Administrator then coordinates with the Assistant to Department Head to grant card access and issue the keys. At the beginning of each semester the Graduate Program Administrator reviews the number of research units and verifies the eligibility for continuous desk assignment.

### **c. Student Office Policy**

- No microwave oven is allowed in the office. Use microwave ovens in the kitchen.
- Food with a noticeable smell must be consumed in the kitchen or collaboratory.
- Food should not be left exposed in the office for an extended period of time.
- Food trash in the office must be brought out to the hallway by the end of the day, with the trash bag tied.

- Office trash is collected each Tuesday night. Filled office trash container may be left in the hallway with the bag tied.
- Clean up any liquids spilled on the carpet right away.
- All items must be kept within the assigned desk area, whether or not the neighboring area has been occupied. Keep the desk organized.
- Equipment that occupies constant floor space, such as refrigerators, must be approved by the Business Manager prior to placement.
- The door(s) to the office must be kept closed all the time.
- No loud speaking or music playing is allowed in the office or laboratories.
- Use only approved markers for the white wall.
- Keep strangers out of the office. Report suspected intruders to the staff or CMU police (8-2323).
- Repeated violations of the above policy may result in loss of desk assignment and/or card access to the floor.

#### **d. Conference Rooms**

Conference rooms may be used for purposes relevant to the mission of the BME Department. BME core faculty may request recurring reservations, with the agreement to remove the reservations promptly when the use is no longer necessary. BME students or research staff may request single reservations for purposes related to their research or education in biomedical engineering.

Other CMU academic or administrative units may request single reservations of the large conference room 4N200 for business purposes, no more than 3 business days from the date of reservation. Permission to use the conference room does not include other facilities on the floor.

The person requesting the reservation is responsible for proper use of the equipment in the conference room, for restoring the room to good order after the use, and for limiting the entry to authorized persons. All electronic equipment must be left in its original setting and no signal connections should be altered.

#### **e. Collaboratories**

Collaboratories on the fourth floor are for the use of members of BME Department only, although a member of BME, upon approval of the Business Manager, may sponsor collaborative activities relevant to the mission of BME Department during business hours that include other members of the CMU community.

The purpose of collaboratories on the fourth floor is to promote open interactions on topics relevant to the missions of the BME Department. Activities should therefore be conducted in English in order to encourage open participations, except for purposes specific to a foreign language such as language practice.

Display monitors in the collaboratory may be used temporarily for collaborative activities. The original configuration and display content must be restored after use.

Whiteboards in the collaboratory may be used with approved markers and cleaning fluids only. Furniture and equipment in the collaboratory must be returned to the original configuration upon finish. All trash must be removed from the area.

**f. Kitchen and Copying/Printing Facilities**

Kitchen and copying/printing facilities are to be used by members of the BME Department only. Users are responsible for maintaining the order of these facilities, cleaning up any mess after use and restoring the equipment to the original condition. Any outdated food must be removed from the kitchen area including the refrigerators. Microwave ovens must be kept clean after use, with any spilled/splashed food wiped away immediately. No food shall be left cooking unattended in the toaster oven, which runs a risk of burning and smoking. Food, food containers, or food utensils left on the kitchen counter may be disposed without notification. All users must follow recycling rules and use recycling bins as designated, never to dispose any garbage in the recycling bin. Prior to disposing any trash, the user must make sure that the trash bin is lined with a plastic bag. Liquid in the trash should first be drained in the sink.

Food and drinks available to all are marked as such. Otherwise they should be assumed as belonging either to an individual or to the BME Department for events. Coffee in the coffee machine is for common consumption. Ground coffee is available in the kitchen. Users are expected to either make fresh coffee or turn off the coffee machine and rinse out the pot when the pot is nearly empty.

### **III. Management of the Laboratory Floor**

#### **a. Authorization of Entry**

Third floor lab is locked at all times. Permit to enter the lab is granted to BME core faculty, administrative staff, and researchers supervised or sponsored by a BME faculty member in Scott Hall, upon approval. Entry authorization and associated card access may be revoked by the Steering Committee upon the violation of safety or operation policy, or the demonstration of unprofessional behavior including unauthorized use of facilities or materials.

Sponsored entry may be requested by a BME faculty member who has an office in Scott Hall and performs research on the floor, for either conducting collaborative research or using a shared research facility under the supervision of the faculty member. All sponsored researchers, including faculty members and their students and research staff, must possess a valid CMU ID card and file an online application form to seek approval of the Steering Committee. Particular attention is placed on any new projects or materials to be introduced to the floor. The Steering Committee may raise safety concerns, or concerns about potential impacts on existing projects such as the introduction of incompatible organisms. Entry into the lab may be granted only after successful resolution of such concerns.

Due to the wide open environment and associated safety concerns, all the researchers—including those coming to the floor for the use of shared facilities as well as students and associates of a faculty member with sponsored entry, must be made known to the Lab Manager and to members of at least one research group on the floor. Faculty member who sponsors the researcher is expected to follow the procedure below:

- Collecting the CV, for the understanding of training background
- Meeting with the person, for the understanding of the nature of work and equipment requirements
- Reviewing the online application and addressing any concerns of the Steering Committee
- Explaining lab rules, requesting the reading of this document
- Introducing the person to the Lab Manager and members of the group
- Encouraging the person to participate in group and floor meetings
- Notifying the Business Manager, with the card ID number of the sponsored researcher.

Occasional entry, for example for limited use of facilities, is allowed upon notification of the Lab Manager by a sponsoring faculty without the above approval procedure. The person will not be granted card access and must be accompanied at all times by the Lab Manager or a regular (non-sponsored) researcher on the floor. In addition, any facilities to be used must be operated by a researcher certified by the Lab Manager. Student and research staff must seek agreement and sponsorship of the supervising faculty before bringing any visitors to the lab.

#### **b. Card and Key Access**

Unlimited 24-7 card access to the third floor lab is granted only to researchers with a work alone permit specifically designated for the Scott Hall third floor lab. The permit must be endorsed by both the supervising faculty and the Lab Manager. Otherwise card access may be granted for Monday to Friday entry between 8am and 6:30pm upon request of the supervising faculty. When

requesting work alone permit and unlimited access on behalf of a student, faculty members must take into serious consideration the open environment of the lab with easy access to potentially harmful equipment and chemicals throughout the floor. Therefore a student should be well acclimated to the lab environment before receiving the permission to work alone.

Keys to locked, special purpose rooms may be issued upon the approval of the faculty member who supervises the room. A shared key is kept in a key box at the door. Those with approval to use the room by the faculty member who supervises the room may obtain the combination code for the key box from the Lab Manager. Shared key must be returned to the lock box when the session of use ends and during long breaks.

All card access and keys to special purpose rooms must be requested by a BME faculty supervisor on behalf of the student or staff researcher. Requests, including the name, Andrew ID, and the 9-digit ID number, should be sent to the Business Manager or Department Head, who will then coordinate with the Assistant to Department Head to grant card access and issue the keys, and with the Lab Manager to ensure proper safety training. The faculty member must ensure that all supervised or sponsored researchers are introduced to the Lab Manager.

#### **c. Laboratory Cameras**

Surveillance cameras are installed for the purpose of ensuring the safety and optimal operating condition of the lab. Live images are accessible to the entire lab community, upon requesting a login ID and password from the Lab Manager. The "Main Stream" provides high resolution images without sound. The "Sub Stream" provides lower resolution images with sound. Only the Main Stream is recorded. Old footages are overwritten automatically when the storage is full.

Members of the lab community may request recorded footages from the Lab Manager for reasons related to the safety or operating condition of the lab, such as the presence of spilled chemicals, messes left behind, items missing, improper waste disposal, or unauthorized equipment use or abuse. The Lab Manager may use the footage to narrow down the persons for inquiry or bring serious cases to the attention of the Steering Committee.

#### **d. General Laboratory Policy**

- All researchers must receive safety training administered by EH&S, appropriate to their tasks in the third floor lab. Biosafety training is mandatory regardless of the nature of research, in order to meet the requirement of emergency egression through labs with biohazards.
- Those entering the lab must carry safety goggles and wear the goggles whenever possible. Shared goggles may be picked up near the entrance and returned before exiting. No open-toe shoes are allowed in the lab. Gloves and lab coat must be worn whenever the operation poses a health risk through the skin or clothing. Gloves must be removed prior to touching any common surfaces such as door knobs.
- Except otherwise indicated, all research groups are responsible for providing their consumables. No supplies should be used without the permission of the owner group. Commonly used consumables are kept in the Stock Room 3102 and may be purchased from the Lab Manager using an Oracle string.
- Sponsored personnel or visitor must either obtain permission from the faculty sponsor for using his/her consumables or provide their own consumables. They are discouraged from transporting poorly sealed sterile materials, and encouraged to purchase common consumables from the Stock Room.
- All users of tissue culture facilities must receive training and certification by the Lab Manager regardless of previous training. All live cells to be maintained in the incubator must be kept in

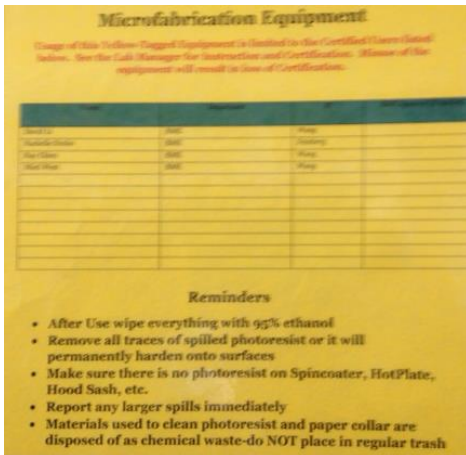


a quarantine incubator, until they pass a mycoplasma test. All researchers are encouraged to perform antibiotic-free culture to the extent possible.

- All researchers must follow the guidelines for proper disposal of research wastes, in appropriate containers. Biohazard containers must be used only for approved wastes such as blood contaminated materials, while plasticware for regular tissue culture may be treated with bleach and disposed as regular waste.
- As dust can easily spread in the lab to affect optical equipment, all researchers are expected to keep the lab clean and in good order.
- Sound playing audible to anyone else, or the use of earbuds, is not allowed, due to the concern over distractions, safety, and/or conflicts.
- Defeating or tampering with security cameras in the lab will result in immediate suspension of card access.
- **Any shared benches or facilities must be brought to at least the original tidiness when work is finished.** All researchers must share the responsibility to report to the Lab Manager behaviors that may endanger personnel safety or lab properties. The Lab Manager will then bring all violations to the attention of the Steering Community.

#### d. Use of Shared Equipment

Shared equipment includes all equipment acquired at least in part with departmental, college, or university funding, and equipment purchased with faculty research funding and kindly allowed for shared usage by the faculty member in charge. The goal of shared equipment policy is to encourage safe, responsible use while avoiding any unnecessary repairs or conflicts.



Shared equipment may be recognized by a yellow tag, together with posted user reminders and a list of certified users. Additional documentation and user manuals may be available online. However, despite the availability of documentation, all users of shared equipment must receive training and certification from the Lab Manager even if he/she has used the same equipment elsewhere. After finishing, the user must leave the equipment in at least as good a condition as before starting. Any malfunctioning must be reported promptly to the Lab Manager. User certification may be revoked by the Steering Committee for failing to follow the requirements for proper usage, upon reports of other users or the Lab Manager.

Reservations of shared equipment may be viewed using online calendars, and requested by contacting the listed person in charge. All users of shared equipment are required to record the actual usage after each use, which may be used for calculating departmental contribution to maintenance. User fee may be charged for shared equipment that has costed a substantial amount for repair or maintenance during the previous year.

In addition to yellow-tagged shared equipment, equipment may be red-tagged to indicate that it is not for shared use and is off-limit to all but users directly authorized by the supervising faculty member. Equipment tagged green or untagged is for general use without certification, which includes most small, safe, robust, and simple equipment such stirring plates. The user is expected to ask the Lab Manager when not sure about whether or not a piece of equipment is for sharing.

#### e. Management of Lab Space

Space in the third floor lab is managed by the Head of the Department in consultation with the Steering Committee. No equipment that affects usable space on the bench or floor may be added without the approval of the Department Head. Small equipment placed along the deep end of a bench while leaving the front side accessible, such as stirring plates, is not limited by this policy.

Lab space is managed with the goal to achieve a consistent, efficient usage throughout the floor. When new space needs arise such as for the recruitment of new faculty members, the Department Head in consultation with the Steering Committee will identify areas with sustained underutilization for possible adjustments of assignment. Efficient use of bench space may be judged based on the average density of workers over an extended period of time. Space for equipment may be judged based on the frequency of usage of the equipment.

#### IV. Additional Information

a. **BME Scott Hall Bulletin:** <http://www.bme.cmu.edu/admsecure/scott.html>

#### b. Contact Information

Head of Department: <http://www.bme.cmu.edu/people/staff.html#DH>

Business Manager: <http://www.bme.cmu.edu/people/staff.html#BM>

Laboratory Manager: <http://www.bme.cmu.edu/people/staff.html#LM>

Assistant to the Department Head: <http://www.bme.cmu.edu/people/staff.html#DHA>

#### c. Conference Rooms

Reservation Calendars

- o 4N200:  
[https://www.google.com/calendar/embed?src=okup6g33hfs87cjrhtkftqvi0%40group.calendar.google.com&ctz=America/New\\_York](https://www.google.com/calendar/embed?src=okup6g33hfs87cjrhtkftqvi0%40group.calendar.google.com&ctz=America/New_York)
- o 4N203:  
[https://calendar.google.com/calendar/embed?src=vmg0trc8n1slqhmi6ffh6l6fdg%40group.calendar.google.com&ctz=America/New\\_York](https://calendar.google.com/calendar/embed?src=vmg0trc8n1slqhmi6ffh6l6fdg%40group.calendar.google.com&ctz=America/New_York)

Instruction for Wired Connections to the LCD Display:

<http://www.bme.cmu.edu/admin/documents/WiredAV.pdf>

Instruction for Wireless Connections to the LCD Display:

<http://www.bme.cmu.edu/admin/documents/WirelessAV.pdf>

Instruction for Video Conferencing:

<http://www.bme.cmu.edu/admin/documents/VideoConferencing4N203.pdf>

#### d. Laboratory

Picture roster of researchers for the third floor lab:

<http://www.bme.cmu.edu/admsecure/scottroster.html>

Web Cameras: <http://bmecamXX.bme.cmu.edu> where XX is a two digit camera number

Equipment documentation and reservation calendars:

<http://www.bme.cmu.edu/admin/scott.html>

Online Application Form for Sponsored Access to the Third Floor Lab:

[https://docs.google.com/forms/d/e/1FAIpQLSdAP\\_as0ByZAcERL4TkEUov8yGIQZvv8a6Bu8NHLaCZxyVVrA/viewform?c=0&w=1](https://docs.google.com/forms/d/e/1FAIpQLSdAP_as0ByZAcERL4TkEUov8yGIQZvv8a6Bu8NHLaCZxyVVrA/viewform?c=0&w=1)

#### e. Desk Assignments in Student Offices

4N001: <http://www.bme.cmu.edu/admsecure/scotthall/4N001Seating.pdf>

4N002: <http://www.bme.cmu.edu/admsecure/scotthall/4N002Seating.pdf>

4N003: <http://www.bme.cmu.edu/admsecure/scotthall/4N003Seating.pdf>