

GENERAL RULES FOR THE USE OF BIOMEDICAL ENGINEERING LABORATORIES

1. The present regulation establishes the operation standards of the Biomedical Engineering Laboratories of the Universidad Anáhuac México; as well as the guidelines to guarantee the safety and effectiveness of the users, and a good work environment.
2. Biomedical Engineering Laboratories of the Universidad Anáhuac México are part of the Biomedical Engineering Coordination of the School of Engineering. For this reason, the application of this regulation is subject to the General Regulations of Universidad Anáhuac Students and other higher order regulations that may apply.
3. They are freely available to students, teachers and researchers of the School of Engineering, provided they are going to be used during previously established hours, during periods that do not interfere with the development of scheduled experiments within the courses (including those sessions previously reserved by instructors), and with a written permission from the area coordinator.
4. Students may not remain in the laboratory without a teacher or technician responsible, unless they have a special written permission from the area coordinator and one of them signs a letter of acceptance of responsibility.
5. Since laboratories are not designed to consume food inside them or to store or dispose food or biological, toxic or infectious waste, it is forbidden to ingest food or beverages in the laboratories; with the exception of water, as long as it is stored in a closed bottle to avoid damage to the facilities.
6. It is strictly forbidden to smoke inside the laboratory, as well as to enter intoxicated and/or in an inconvenient state.
7. During laboratory sessions, the use of cell phones and any personal tracking device is strictly forbidden. These should be turned OFF or set in SILENCE MODE upon entering the laboratory.
8. Games or other non-laboratory entertainment equipment are not allowed inside the laboratory, nor should laboratory facilities be used to play or perform extra-academic activities without the authorization of the coordinator.
9. Material or equipment may not be taken out of the laboratory without prior written permission from the coordinator or the responsible teacher.
10. Schoolbags, briefcases, school materials, etc. must be placed so that the aisles and exit doors of the laboratory are kept free; also, they must not prevent the free use of the facilities.

11. Appropriate behavior expected in an academic center must be kept at all times; and the voice should be kept down. For the safety of the users, no running, pushing or playing is allowed. The use of the laboratory equipment in a careless or inappropriate manner is also forbidden.
12. Any accident occurred during the experiment must be immediately reported to the laboratory teachers, as well as to the emergency and medical services of the University.
13. Students may not leave laboratory experiments assembled or in progress, nor entrust them to any laboratory teacher. Conducting experiments is solely the responsibility of the people developing them and the duties of the staff assigned to the laboratories do not include being responsible for them.
14. Students are not allowed to be entering and exiting during the development of an experiment.
15. With the intention of having the equipment and material available for each session, each instructor should request, with at least 2 days in advance, all the necessary elements for the corresponding session. In the event the session is not programmed within the working hours of the person in charge of the laboratory, he/she will be responsible for leaving the supplies in an easily accessible location, so that the instructor can deliver them to the students.
16. Each student working team will be responsible for the material delivered during the experiment, and they must give it back clean, complete, and in working conditions at the end of the session.
17. If a student breaks any material during the experiment, the WORKING TEAM must replace it in the next session. The Anáhuac Identity Card from the responsible student will be withheld. Likewise, if a student deliberately or accidentally breaks or mistreats furniture, equipment or devices provided, he/she will have to repair the damage caused or pay for the required maintenance.
18. At the end of the session, students must exit the laboratory leaving the facilities and equipment (working desks, lab material, etc...) clean; and they must verify that all the equipment used is properly turned off.
19. The teacher will verify if the equipment and laboratory material are being correctly handled, and will have authorization to remove from the classroom any student that does not obey the guidelines set forth in this regulation.
20. If the session does not take place during the working hours of the person in charge of the laboratory, the instructor will be responsible for placing the equipment and/or materials used in locations previously agreed with the head of the laboratory and, if applicable, to close all the cabinets. For safety reasons, upon closing the laboratory, the instructor must be certain that no one is left inside the facilities.
21. In order to use the equipment and/or materials, the student must complete and sign the corresponding section in the lending material laboratory logbook and

must personally return the equipment and materials. If the equipment and materials are returned satisfactorily, the person in charge of the laboratory will sign upon reception in the appropriate column. In the corresponding record, the materials and equipment provided must be duly noted, as well as the loan and return dates.

22. Any issue not specifically covered by these regulations (including Appendixes I, II and III, presented below) shall be solved in accordance with the higher order regulations that apply, taking into account respect for the University, common sense, healthy coexistence and, above all, the physical safety of users and facilities.

I. SPECIAL REGULATIONS FOR THE USE OF THE LABORATORY OF BIOMEDICAL ENGINEERING I (LABORATORY OF BIOINSTRUMENTACIÓN AND ELECTRONICS)

1. To request any type of material, the student must ask the person in charge of the laboratory, who will write down the material requested in the corresponding form. It is an essential requirement to return all equipment and material lent during the semester, to earn the qualification right in the subjects that make use of this laboratory.
2. Basic electronic components may be requested by loan and returned at the end of the semester. Specialized equipment (acquisition cards, multimeters, Arduinos, connection tips, etc.) must be returned after one week. Power equipment (voltage sources, function generators, oscilloscopes, ELVIS) must be returned the same day they were requested. The person in charge of the laboratory will have a list signed by the students, where the delivery and return of the materials is recorded.
3. The power supply equipment that is fixed in the workbenches must not be disconnected or moved under any circumstances. Similarly, their location in the laboratory is for their exclusive use, so other materials should not be placed in those spaces.

II. SPECIAL REGULATIONS FOR THE USE OF THE LABORATORY OF BIOMEDICAL ENGINEERING II (LABORATORY OF BIOMATERIALS, ORTHOPEDICS AND PROSTHETICS)

1. The use of a white cotton lab coat during the laboratory session is mandatory. This lab coat must completely cover the arms and, preferably, should be long enough to reach the knees or be just above them. During the laboratory sessions, IT MUST BE WORN COMPLETELY CLOSED.
2. Open shoes such as sandals, huaraches, high heels or barefoot are not allowed.
3. In case of long hair, it must be worn tied up. Wearing caps inside the laboratory is not allowed.
4. Follow the teacher's directions concerning the toxicity and flammability of materials and reagents used during the laboratory experiments; avoiding at all times, the inadequate use of dangerous equipment or material.

III. EMERGENCY GUIDELINES

1. Upon entering a laboratory, identify the emergency exits, emergency showers, and eyewash stations; as well as the location of all the fire extinguishers and emergency signs.
2. All laboratory users have the right and duty to follow the safety guidelines of this regulation. They also have a moral duty to communicate these guidelines to other users who may not be aware of them.
3. The following **guidelines** should be followed **in case of fire**:
 - a. If the fire is contained inside a small vessel, it may be extinguished by covering the container. Never lift up a burning container.
 - b. If the fire is originated by small quantities (< 1 g) of alkaline metals or organometallic compounds, it must be quenched with sand and the teacher must be notified.
 - c. In the event of intense fire, immediately report it to the teacher. If possible, unplug the equipment being used and close the gas valves. Evacuate the laboratory.
 - d. If someone's clothes catch fire, make the person roll over the floor. If it is necessary and possible, use the security shower to soak the person.
4. The following **guidelines** should be followed **in case of spills**:
 - a. Notify the instructor of the spilled substance as soon as possible.
 - b. If the material is flammable (or unknown), remove all fire-ignition sources.
 - c. Delimit the spilled area and, if necessary, evacuate the room.
5. The following **guidelines** should be followed **in case of intoxication by inhalation**:
 - a. Identify the material and notify the teacher.
 - b. Take the affected people to a ventilated area, away from the hazardous agents.
6. The following **guidelines** should be followed **in case of intoxication by ingestion**:
 - a. Identify the material and notify the teacher.
 - b. If the affected person is conscious, make him/she drink 2 to 4 glasses of water.
 - c. Induce vomit. **IMPORTANT EXCEPTIONS**: never induce vomit if the intoxication was due to the ingestion of kerosene, gasoline, acids, or strong alkalis.
 - d. Administer 15 g of universal antidote: • 2 tablespoons of activated carbon, • 1 tablespoon of milk of magnesia, and • 1 tablespoon of tannic acid.
7. The following **guidelines** should be followed **in case of eye contact** with any product:
 - a. Identify the material and notify the teacher.
 - b. Rinse the eyes with running water for 15 minutes, making sure the eyelids are completely open.
8. The following **guidelines** should be followed **in case of skin contact**:
 - a. Identify the material and notify the teacher.
 - b. Rinse the affected area for 15 minutes with running water.
 - c. Remove contaminated clothing.

- d. Do not apply oil or grease.
- 9. The following **guidelines** should be followed **in case of minor burn by a heating source**:
 - a. Notify the teacher.
 - b. In the event of minor burns, place the affected area under running water for 5 - 10 minutes and apply Furacin®.
- 10. The following **guidelines** should be followed **in case of cuts**:
 - a. Notify the teacher.
 - b. Wash the affected area with running water, and remove splinters (if any).
 - c. Apply a bandage (tourniquet).
- 11. Guidelines regarding the safety and correct use of the laboratory equipment of specific subjects will be indicated by each instructor at the beginning of the semester and must also be fulfilled by all the participants of the course.

You are responsible for your own safety and for the safety of your colleagues

Prevention is synonym for safety