



Note to Laboratory Directors 5780, 2019-2020

Date: 27/10/2019

To the Laboratory Directors - Greetings,

At the beginning of the new academic year, I would like to extend my wishes for a successful year. Each and every one of us has the right to work, to research and to study in a healthy and safe occupational environment.

The attached document provides important and essential information and highlights the Laboratory Director's role as the individual responsible for safety in his laboratory, Safety Department guidelines for workers' training, guidelines for reducing laboratory hazards, and more. Please dedicate time to reading this document.

We have also appended a selection of accidents in University laboratories and guidelines for working safely with hydrogen gas. I must stress that there is a requirement to work according to certified and authorized procedures, to perform risk management and to consult with specialists from the Safety Department when carrying out high-risk chemical reactions. Likewise, make sure that you are well acquainted with the University emergency response guidelines.

My colleagues and I at the Safety, Hygiene and Environment Department are available to answer any questions.

Department website: <http://safety.huji.ac.il>

Cordially,

Eli Keinan

Director, Department of Safety and Hygiene

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Preparing a safety program

Safety regulations require that the Laboratory Director prepare, once a year, an annual safety program including (at least) the following topics:

- **A list of hazards in the laboratory**
- **Laboratory methods used when working with hazards**
- **Safety measures applied in the laboratory when working with hazards**

The main purpose of preparing this safety program is to guarantee a thorough understanding of laboratory hazards as well as knowing how to ensure that risk factors are controlled and how to be protected from them.

According to the Safety Program, the Laboratory Director will train workers about hazards specific to his/her laboratory.

When a new risk factor is introduced to the laboratory, the workers must be informed and the safety program updated.

Safety training

Safety training is a general term for workplace training intended to raise workers' awareness of hazards in their workplace, in order to prevent work accidents.

Workplace safety regulations state that every worker must be instructed regarding specific hazards in the work environment, and that safety training must be conducted at least once a year on the topics of prevention and protection from hazards.

- The Laboratory Director is responsible that no new worker be employed in the laboratory unless he/she has been trained according to the protocol for training new laboratory workers.
- The Laboratory Director is responsible that all experienced laboratory workers participate in refresher training once a year (according to the training protocol for experienced laboratory workers), as a condition for continued employment in the laboratory.
- The Laboratory Director is responsible to ensure that each worker reads and understands the safety instructions for instruments that he/she will operate; and before beginning to work, has received practical training on the instruments from certified instructors.
- Every worker must read the safety flipchart and have access to the emergency telephone number of the Campus Security Unit.
- Reading material safety sheets (MSDS) is also a type of safety training.
- The Laboratory Director is responsible for ensuring that visitors from other universities, high school students, college students, guests from industry and others who come to work in the laboratory undergo training according to the protocol for new laboratory workers.

Safety training for new laboratory workers

	Type of training	Frequency	Date
1	Personal training by the Laboratory Director about lab-specific hazards	Once	When starting to work and when a new hazard is introduced to the lab
2	Complete the "Lab Safety" courseware	Once	When starting to work
3	Participate in new worker frontal safety training	Once	
4	Read the Lab Safety flipchart	Annually	
5	Complete occupation-specific courseware (autoclave, laser workers, radiation workers)	Annually	Before starting to work
6	Participate in fire-safety training and drills	Annually	

- Frontal safety training for new workers will be coordinated by the Safety Department.
- The Laboratory Director will refer workers to safety training sessions on specific topics.
- Fire Safety training drills will be coordinated by the Safety Department.

Safety training for experienced laboratory workers

	Type of training	Frequency
1	Complete the "Refresher Lab Safety" e-learning courseware	Annually
2	Read the Lab Safety flipchart	Annually
3	When invited, participate in frontal safety training	
4	Complete occupation-specific courseware (autoclave, laser workers, radiation workers)	Annually
5	Participate in fire-safety training and drills	Annually

- Frontal safety training for experienced workers will be coordinated by the Safety Department.

Intake of new high school students, college students and guests to a University research laboratory

- High school students
- College students
- Guests from other universities
- Guests from industry
- Others

Must undergo safety training similar to other laboratory workers ("Safety training for new laboratory workers").

High school students will be permitted to work in a University laboratory only after: registering with the Community and Youth Authority, receiving permission from the Campus Safety Officer and participating in safety training.

Guidelines for minimizing laboratory hazards

- Carry out laboratory safety guidelines, use personal protective equipment and be familiar with emergency equipment and first aid measures.
- Every worker and the Laboratory director will perform routine laboratory activities based on common sense and logic.

Work according to reviewed and certified processes

- Learn about and become familiar with all of the activities meant to be performed in the laboratory. Be aware of the substances used and how processes are performed, and of products and by-products.
- Control risk factors while performing laboratory activities, and use engineering controls and personal protective equipment according to regulations.
- Reduce hazards by using less dangerous alternatives, for example: biological agents which are not pathogenic or killed; less hazardous chemicals; or non-radioactive markers.
- In exceptional cases that diverge from standard procedures, manage the hazards in consultation with specialists from the Safety Department.
- In case of doubt regarding the presence of a safety or health risk, do not work until you are sure that it can be performed safely.
- Classify materials and store them according to risk groups.
- Limit quantities of hazardous materials stored in the laboratory.
- Dispose of hazardous material waste produced in the laboratory in an appropriate manner.
- Dispose of biological waste appropriately.
- Only certified repairman may fix equipment, never laboratory workers.
- Eliminate safety hazards from the laboratory on a regular basis.
- Immediately deal with problems noted in the Campus Safety Officer's report.
- Only use equipment which is in good condition and has passed periodic inspections.
- Use safe work techniques when handling sharp or breakable equipment.
- Do not permit working alone with hazardous materials in the laboratory.
- Learn about and be aware of how to respond to emergencies.

Ban on working alone in the laboratory

- It is forbidden to work alone with hazards in the laboratory.

Emergency response

In case of any emergency event in the University - such as an accident with injuries, a fire, a leak/spill of hazardous materials - immediately inform the Campus Security Unit.

Maintain contact with the Security Unit, and coordinate meeting the rescue forces and treatment/evacuation of the injured with the Security Unit.

Move away and help others move away from the hazardous location.

Operate safety measures (fire extinguisher, emergency/cut-off switches etc.) as needed and according to your judgement. In case of a chemical/biological/radioactive spill that can be handled, don personal protective equipment and handle the event according to instructions for responding to a spill.

In case of an emergency with injuries, immediately provide first aid and at the same time call the Campus Security Unit.

If an injury requires evacuation, confirm that the Security Unit has ordered an ambulance and that security staff will accompany it to the incident location.

When security, safety, fire fighter or ambulance (Magen David Adom) forces arrive, provide them with maximum information and follow their instructions.

Campus Security Units telephone numbers (24 hours):

Givat Ram Campus:	02-6585000
Har HaTzofim (Mt. Scopus) Campus:	02-5883000
Ein Kerem Campus:	02-6758060
Rehovot Campus:	08-948-9900

SAVE THESE NUMBERS IN YOUR CELLPHONE MEMORY

Reporting accidents to the Campus Safety Officer

- You must report any accident, incident or spill involving hazardous materials (chemicals, biological agents, radioactive substances etc.) in the laboratory to the Campus Safety Officer and to the Unit Director.
- The Laboratory Director will report any accident to the Unit director and to the Institute/Department Secretariat. The Unit Director will complete the form for reporting a hazardous situation/work accident and send it to the Campus Safety Officer.

TO DO LIST

- Prepare an updated laboratory safety program once a year.
- Make sure that all new workers and guests in the laboratory complete safety training.
- Make sure that laboratory signs are obeyed by the workers.

- Supply personal protective equipment to laboratory staff, and provide a personal example by using it yourself.
- Vaccinate when required by a medical specialist.

- Procure materials for laboratory use through the Hazmat Management System (MANCHAM).
- The contents of laboratories must be kept within the laboratory area/laboratory rooms.
- Stock materials in cabinets dedicated to storing hazardous materials, according to risk group.
- Reduce quantities of hazardous materials, limit storage of hazardous materials.
- Keep material safety data sheets (MSDS) in the laboratory.
- Treat hazardous material waste produced in the laboratory in an appropriate manner.
- When a laboratory is decommissioned, the Laboratory Director is responsible for completely clearing out all hazards.

- All equipment must be inspected as required.
- Only certified repairmen may fix equipment, never laboratory workers.

Work using certified and authorized processes.

- Laboratory work will be conducted while controlling risk factors and using engineering controls and personal protective equipment.
- In exceptional cases that diverge from standard procedures, manage hazards in consultation with specialists from the Safety Department.

- Routinely eliminate safety hazards from the laboratory.
- Discuss safety issues during the research group's staff meetings on a regular basis.