



Guangdong Technion

Israel Institute of Technology

广东以色列理工学院

Lab Safety Guiding for Lab Management

实验室一般安全规定

Lab Safety Guiding for Lab Management



Agenda:

- Acceptant (Lab handover)
- Lab Course Preparation
- Course process
- End of course
- Close lab



Topic: Acceptant

Review:

1. Hardware (With CCD/ Operation/ EHS)

- Facility setting
(Emergency/Firefighting/ Waste storage/ Safety label system)
- Safety setting
(lab equipment: FH/Chemical storage cabinet/ Gas Cabinet/ Gas piping/ Special equipment etc.)

2. Software

- Mandatory safety training in MOODLE
- Sign the Safety Agreement

Topic: Acceptant



1. Hardware



(Emergency/Firefighting/ Waste storage/ Safety label system)

2. Software



(lab equipment: FH/Chemical storage cabinet/ Gas Cabinet/ Gas piping/ Special equipment etc.)

Topic: Acceptant



Lab safety courseware

Dashboard / My courses / Lab safety courseware

Announcements

- Affirmation and Agreement承诺书.pdf
- Affirmation and Agreement承诺书.pdf
- GTIIT Lab Safety Guidelines 实验室安全指引.pdf

Download folder

Your progress

Chemical-Safety-Courseware

- Chemical-Safety-Courseware
- Chemical Safety Exam

Restricted Not available unless: The activity **Chemical-Safety-Courseware** is marked complete

Biological-Safety-Courseware

- Biological-Safety-Courseware
- Biological Safety Exam

Restricted Not available unless: The activity **Biological-Safety-Courseware** is marked complete

General-Lab-Safety Courseware

- General-Lab-Safety Courseware
- General Lab Safety Guiding

Mandatory / Alternative

Topic: Acceptant



Training Matrix for lab faculties									
No.	Title	Lab safety mandatory Training	Hazardous Waste Management	Experimental Hazard Analysis EHA	Strictly Controlled Chemicals Management	Personal Protective Equipment (PPE)	Gas Safety	Emergency Response	Testing System
1	Lab Manager	Y	Y	Y	Y	Y	if lab using gas, Y	Y	Moodle
2	Lab Technician	Y	Y	base on lab manager decision	Y	Y	if lab using gas, Y	Y	Moodle
3	Lab tutor	Y	Y	Y	Y	Y	if lab using gas, Y	Y	Moodle
4	Researcher	Y	Y	Y	Y	Y	if lab using gas, Y	Y	Moodle
5	Students	Y	N	base on lab manager decision	N	Y	N	N	Moodle

Topic: Lab course preparation



Management Factors:


No.	Key factors	Storage equipment condition	Condition checking	Actions/Remark
1	Chemical	Y	Y	Know how to get the chemicals How to manage controlled chemicals
2	Bacteria	Y	Y	Confirm by Lab
3	Gas (LNG/Independent supply/central supply)	Y	Y	Inform EHS
4	Factors related to Physical Injury (Radiation/ Strike)	Y	Y	Confirm by Lab
5	Experimental Waste (Waste Liquid\ Solid Waste)	Y	Y	Confirm by Lab
6	Exhaust Gas Ventilation System	Y	Y	EHS will check
7	Emergency response (Materials & Drill)	Y	Y	Contact EHS for arrangement

Topic: Lab course preparation

Request to Students:

- Lab Mandatory Safety Training and pass the test in MOODLE
- Safety Agreement
- Evacuation Drill before start the lab course of the semester





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If you encounter login issues, please visit: <http://help.gtit.edu.cn/>

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Affirmation and Agreement

I, _____, hereby confirm that I have read the Safety Guidelines for Students in Laboratories, which were handed to me at the beginning of the course, and certify that:

I have read and understood the guidelines and I have received instructions on the proper working practice in the laboratories.

I do not suffer from any medical condition, illness or disability that may affect my work with the chemicals or instruments in this laboratory or may be worsened by this work or affect others. In particular, I do not have a poor eye sight or coordination problems. If I have such a condition, I have informed the lab manager before signing this document. The lab manager has confirmed that it is safe for me to work in this lab, and that suitable provisions have been made.

I accept responsibility for acting in accordance with these guidelines and with any additional rules that I will receive from lab personnel in the future, either verbally or in print.

I am aware of the different hazards while working in a laboratory, which may be caused inadvertently by my actions, the actions of one of my peers or any lab employees, by exposure to bacteria or chemicals, or by a failure of a technical piece of equipment in the lab.

I am aware that I might be exposed to dangerous chemicals, i.e., explosives, toxins, flammable materials or carcinogens. (most chemical or bacteria compounds are dangerous to some extent). I affirm that I will obey all instructed guide lines and shall do everything possible to minimize the exposure of myself and others to hazardous substances.

I am aware that chemical substances that are considered safe today, may be found hazardous in the future as a result of ongoing research efforts.

I am aware that by working with different pieces of apparatus and equipment in the lab I am apt to be injured as a result of improper or unsafe operation of myself or of others, or by malfunctioning of the equipment.

(For persons wearing eyeglasses) I am adjusted to my eyeglasses and they fully cope with my eyesight problems.

I do not suffer from a medical condition that may be exacerbated or cause me harm during my work in the lab.

(If you suffer from any medical condition or are allergic to any substance, you must contact an occupational physician and bring a written authorization letter prior to entering the lab. Your signature on this document certifies that you obtained such a permission from an occupational physician).

I affirm that I will notify GTIT in writing, of any change in my health condition or ability to adhere to this agreement, as soon as I become aware of it. In addition, I affirm that I will immediately notify GTIT in writing, of any malfunction, defect or problem I may encounter, which may affect the well-being, health or safety of the people working in the lab or in the surrounding areas.

Surname: _____ First name: _____

ID #: _____ Program: _____

Date: _____ Student's signature: _____

Lab No.: _____ Lab Manager's signature: _____

Topic: Course process



Request to Lab Manager:

No.	Key information	Remark
1	Collect students' safety agreement	Send the E-copy to EHS@gtit.edu.cn
2	Confirm all students passed the Lab Mandatory Safety Training in MOODLE	Based on program and lab request
3	Know how to handle the emergency case related to lab's experiments	<ul style="list-style-type: none">• Join the lab emergency group• Know how to trigger the alarm/ emergency button etc.• Know head count for student in drill• Know how to handle the chemical leakage and report (if possible)• Regular check the emergency tools/material and record
4	Prepare the Safety instruction for lab equipment and experiments (EHA)	Provide the safety remind for key steps or tools instruction in experimental process
5	Waste Management and join the WECHAT group	Know to the classification of experimental waste

Topic: End of course



Checking list for Lab Manager:

No.	Key factors	Actions/Remark
1	Chemical (If lab has)	<ul style="list-style-type: none">• Check the chemicals' storage condition
2	Bacteria (If lab has)	<ul style="list-style-type: none">• Lab checks the storage condition, and confirm with operation for the power supply if need to keep 24hr running
3	Gas (LNG/Independent supply/central supply)	<ul style="list-style-type: none">• Inform EHS,• EHS will ask 3rd party to recheck and close
4	Factors related to Physical Injury (Radiation/ Strike)	<ul style="list-style-type: none">• Lab checks all the machines status
5	Experimental Waste (Waste Liquid\ Solid Waste)	<ul style="list-style-type: none">• Lab cleans all waste and ask EHS to transfer to central warehouse
6	Exhaust Gas Ventilation System	<ul style="list-style-type: none">• EHS will check the regular check
7	Public facility setting (power/ water/ ventilation etc.)	<ul style="list-style-type: none">• Confirm with operation for the power supply if need to keep 24hr running



Topic: Close Lab

These following situation can cause the lab to be closed, for example:

- The lab Principal Investigator leaves the labor campus, and the lab is temporarily left unattended.
- There is a significant safety risk or hazard in the laboratory.
- The lab requires an extensive renovation.

Topic: Close Lab



Before closing lab, actions will be taken:

No.	Key factors	Actions/Remark
1	Chemical (If lab has)	<ul style="list-style-type: none">Return all unopened chemicals back to CWHThe opened package chemicals will be disposal as hazardous waste
2	Bacteria (If lab has)	<ul style="list-style-type: none">The bacteria will be shared to other users from program head approvalThe unused material will be disposal as hazardous waste
3	Gas (LNG/Independent supply/central supply)	<ul style="list-style-type: none">EHS will ask 3rd party to check, close and lock the system.
4	Lab equipment or machine	<ul style="list-style-type: none">Program (or Logistics) will check all the machines status and report to programProgram will arrange caretaker to share the machine to who they need.
5	Experimental Waste (Waste Liquid\ Solid Waste)	<ul style="list-style-type: none">All waste will be transferred to central warehouse to wait for disposal
6	Exhaust Gas Ventilation System	<ul style="list-style-type: none">Operation will check and close the system
7	Public facility setting (power/ water/ ventilation etc.)	<ul style="list-style-type: none">Operation will check and close the systemAnd only keep the power supply to what is needed to keep 24hr running

<https://sites.gtiit.edu.cn/ehs/>

