



# Health & Safety Dr. Naif Alharbi









Aim of workshop



- Why is Lab Safety Important?
- What is COSHH
- What is PPE
- Maintenance of PPE
- Lab safety rules
- college resources and information

## Why is Lab Safety Important?



Lab safety rules and symbols are needed so that students do not injure themselves or their classmates.





What is COSHH?



COSHH stands for: Control Of Substances Hazardous to Health

Substances defined as hazardous to health. These include substances labelled as dangerous, i.e. toxic, harmful, irritant, corrosive or flammable.

The most common substances found in the hospitality industry that have warning labels/ symbols are the cleaning agents and maintenance products.

What the warning symbols stand for!!





### Toxic - Poisoning



Corrosive - Destroying or burning

Irritant - Causing a reaction such as



Hazardous substances



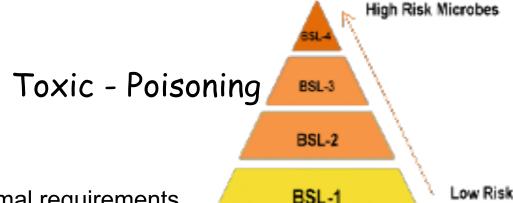
Solid Liquid or Gas that poses a risk to human health or the environment.

inflammation or swelling

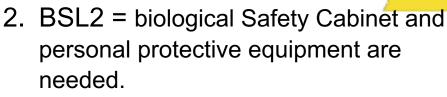
Flammable - Easily ignited and capable of burning rapidly

## What the warning symbols stand for!!





1. BSL1= Minimal requirements



- 3. 3. BSL3 = biological Safety Cabinet and personal protective equipment are needed.
- 4. BSL4 = Biological Safety Cabinet
- + Full-body air-supplied + positive pressure personnel suit.

جَامِعَةُ أُمَّ القُرِيٰ



BSL1

Microbes







What are Safety Data Sheets?



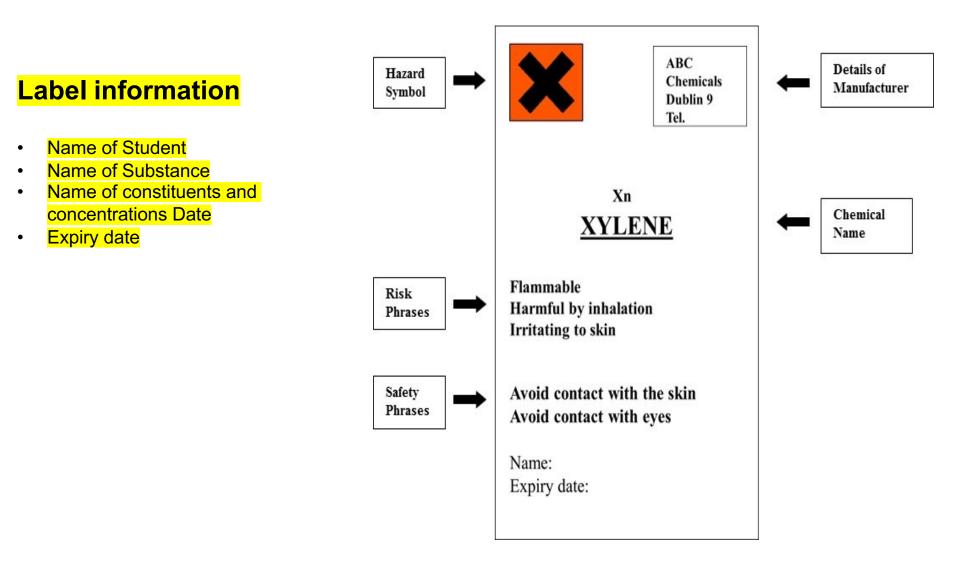
- Safety data sheets provide information on chemical products that help users of those chemicals to make a risk assessment.
- They describe the hazards the chemical presents, and give information on handling, storage and emergency measures in case of accident MS.
- Safety data sheet information may lead to guidance appropriate for your task.

Please see Health & Safety folder for copies of all safety Data sheets



#### What are Safety Data Sheets?







#### Handling and Storage?



#### جَامِعَةُ أُمَّ القُرئ

- + Substances which can be stored together
- O Subject to special precautions. These substances can be stored together, for example, if they are segregated by using spill trays. Otherwise they should be stored separately in safety cabinets.
- Substances that cannot be stored together



	Flammable	Explosive	Toxic	Radioactive	Oxidizer	Harmful
Flammable	+	-	-	-	-	+
Explosive	-	+	-	-	-	-
Toxic	-	-	+	-	-	+
Radioactive	-	-	-	+	-	-
Oxidizer	-	-	-	-	+	0
Harmful	+	-	+	-	0	+





## What is PPE?

## Personal Protective Equipment

• (PPE) refers to protective <u>clothing</u>, <u>helmets</u>, <u>goggles</u>, or other garment designed to protect the wearer's body from <u>injury</u> by blunt impacts, electrical hazards, heat, <u>chemicals</u>, and infection, for job-related <u>occupational safety and</u> <u>health</u> purposes.



Maintenance of PPE



- Keep in a clean condition.
- In accordance with the manufacturers requirements.
- Visually inspected regularly for signs of damage or deterioration.
- Users to report any defects.

## REMEMBER!!



- Each student will be provided with appropriate training and equipment if you have to use chemicals & PPE:
- This will include:
- Explaining the dangers of the task
- The precautions to be taken
- The correct wearing of the PPE
- Supervision of task

IF YOU HAVE NOT BEEN TRAINED - DO NOT CARRY OUT THE TASK!!











#### Wear Personal Protective Equipment





#### Wear Personal Protective Equipment

o Gloves are essential.

o Lab coats are essential.

o Safety glasses ( goggles)

may be required to avoid

splashes.





#### Wear Personal Protective Equipment

#### o should not wear sandals





#### Wear Personal Protective Equipment

• Do NOT Wear:

- Jewelry
- Loose or Baggy clothing





#### Wear Personal Protective Equipment

o Avoid touching objects (e.g., pencils, cell phones, door handles) while wearing gloves.





#### Wear Personal Protective Equipment

o long hair must be tied back or covered to minimize fire hazard or contamination of experiments.





#### Wear Personal Protective Equipment

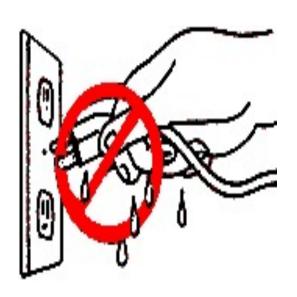
o Do not eat food or drink water in the lab





#### Wear Personal Protective Equipment

- O electrical safety:
- unplug electrical equipment after use.
- keep all electrical cords and wires away from water







#### Wear Personal Protective Equipment

**O** If you spill something, clean it up and tell the Technician over the equipment (they must check if you cleaned up correctly)





#### Wear Personal Protective Equipment

O Do not engage in practical jokes or horseplay in the lab.

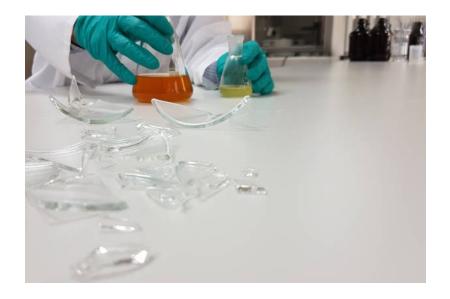




#### Wear Personal Protective Equipment

**O** Report all accidents, no matter how minor, to your supervisor!!







#### Wear Personal Protective Equipment

o organize & Dispose of waste products according to instructions.





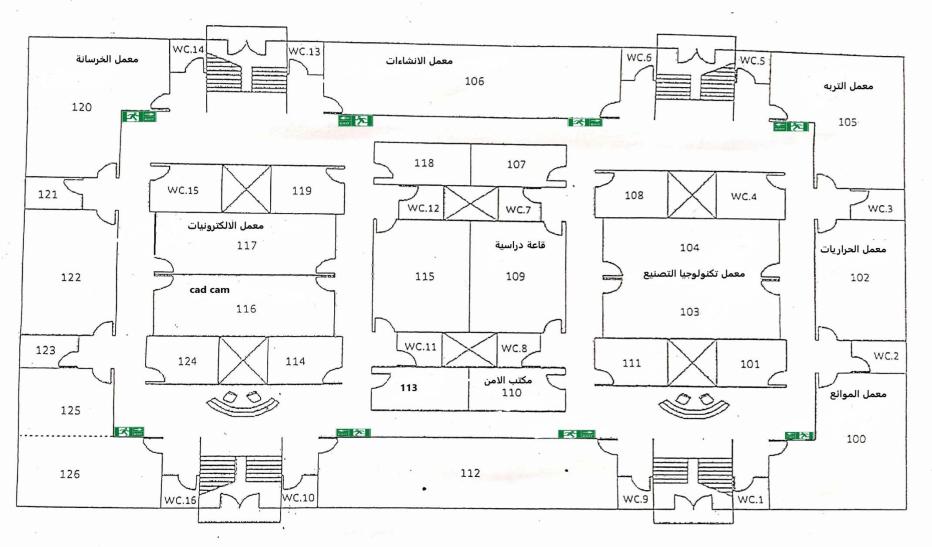
### Wear Personal Protective Equipment o Wash hands after every lab.





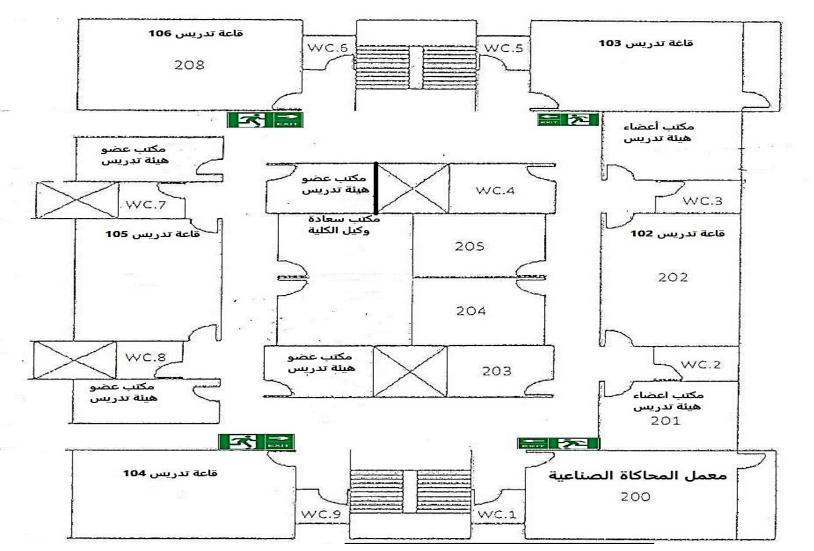
# Evacuation Procedures

خطة إخلاء الدور الأول



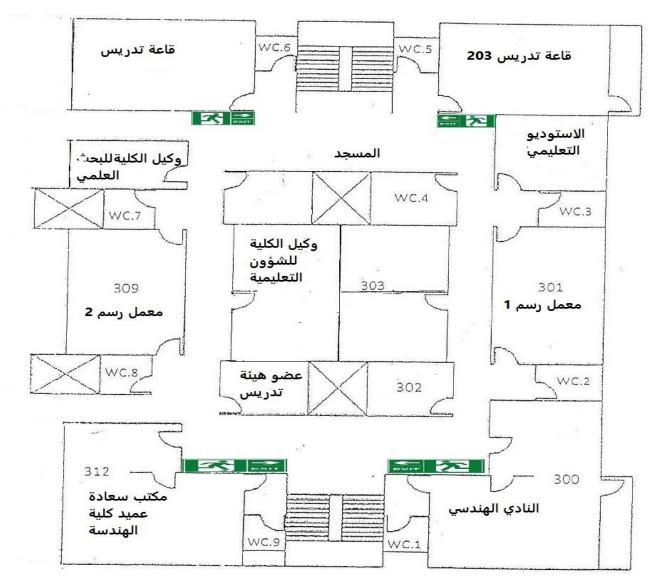


خطة إخلاء الدور الثانى





خطة إخلاء الدور الثالث





نقطة التجمع خارج الكلية

