Hazard Assessment

Objectives

- ✓ Learn about various hazards and risks in a computational lab space
- ✓ Learn how to find hazard information and don the appropriate PPE
- ✓ Learn how to respond to an emergency

Hazard: Anything or anyone that poses a **threat** to someone, something, or the environment.

Risk: The **chance** that something or someone will be harmed by that hazard.

Chance: The probability that a hazard will cause actual harm:

- How likely something will occur
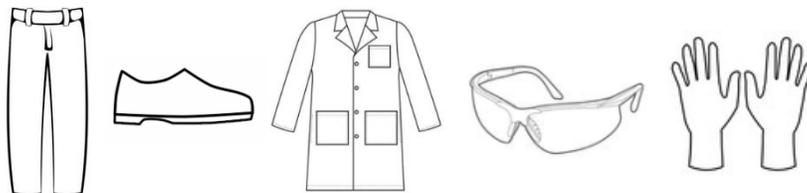- Frequency of exposure; duration of exposure

Severity: The extent to which an incident might cause harm:

- How many people are exposed
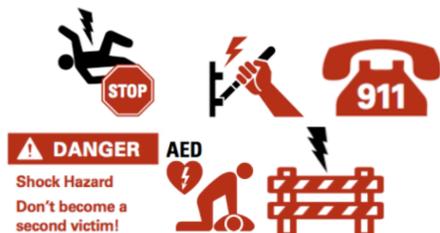- Severity of injuries or health problems

		Level of Potential Injury (Severity)				
		No Action	First Aid	Minor Injury	Major Injury	Death
Chance of Injury (Likelihood)	Very Unlikely	1	2	3	4	5
	Unlikely	2	4	6	8	10
	Possible	3	6	9	12	15
	Likely	4	8	12	16	20
	Very Likely	5	10	15	20	25

Will you need PPE?

- ☐ full length pants (or equivalent)
- ☐ closed toe/heel shoes
- ☐ laboratory coats (or equivalent protective garments)
- ☐ protective eyewear
- ☐ gloves

PPE that may be required for the work you are doing

STOP

⚠ DANGER
Shock Hazard
Don't become a second victim!

AED

What to do in case of major electric shock:

- ☐ Stop. DO NOT touch the victim.
- ☐ Turn OFF power source if safe to do so.
- ☐ Call 911.
- ☐ If power cannot be shut off try to remove victim from source with non-conductive material.
- ☐ Begin CPR if you have training.
- ☐ Block incident area.
- ☐ Submit incident report to EH&S.

Working with electricity:	Working with High Voltage
☐ Never work with electricity unless you've been trained	☐ **Don't!**
☐ You can: 1.- Plug in equipment. 2.- Replace a blown fuse (once). 3.- Restore tripped breaker switch (once). 4.- Use an extension cord or power strip rated for your equipment.	☐ Follow signage posted on instruments and infrastructure. ☐ Do not service instruments unless trained to do so and in the presence of a qualified electrical worker (QEW).
☐ **Do not daisy chain cords or power strips.**	☐ Only authorized to use plug and play equipment.
☐ Keep 3' clearance in front of all electrical panels	☐ Make sure system is properly guarded.
Safe Work Practices	**Working with 3D Printers**
☐ Keep a clean work area (no food, bedding, etc)	☐ Wear safety glasses
☐ Avoid clutter.	☐ Do not touch printing tip or deposited material
☐ Do not store heavy items overhead	☐ Avoid loose-fitted close
☐ Make sure all cabinets, bookshelves and large appliances are seismically restrained.	☐ Control 3D printer temperature
☐	☐ Provide a well-ventilated area
Conduct a "hazard assessment" of your area	**Working alone**
☐ Egress, Fire Extinguisher, Fire alarm	☐ Keep doors closed and locked
☐ Major appliances plugged in to wall outlet	☐ Let someone know you are working
☐ Power cords are in good condition	☐ Check in with a buddy
☐ Power strips and extension cords are UL or NRTL certified	☐ Let someone know when you've left

Unmanned Aerial Systems (UAS) | Drone Safety

- ✓ UC has a UAS (Drones) safety program
- ✓ Drones should be registered with UCR
- ✓ EH&S is your campus contact for scheduling Drone flights
- ✓ Safe storage and use
- ✓ Only authorized users are to fly drones.