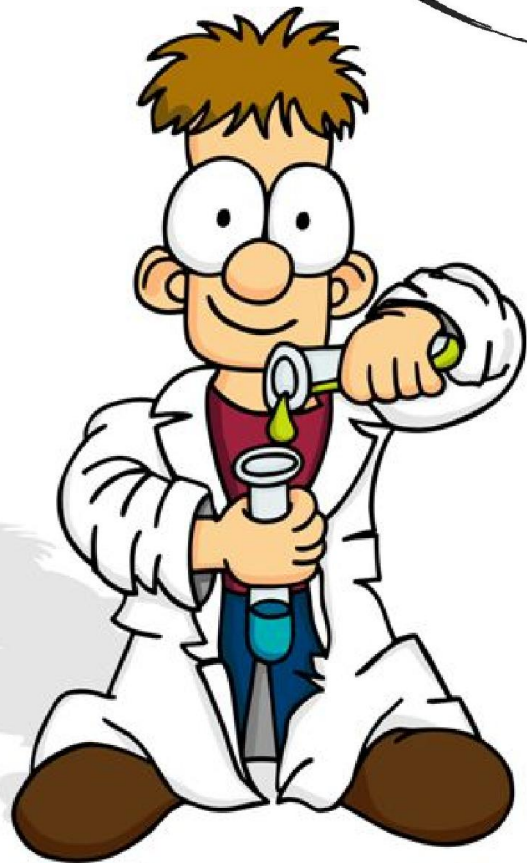




بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



اصول ایمنی در آزمایشگاهها

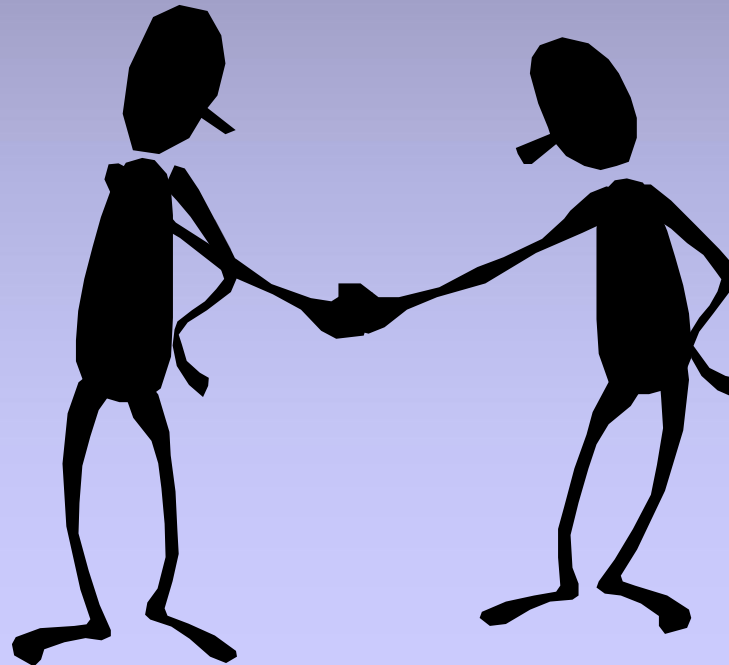
دکتر حسین ابراهیمی

عضو هیئت علمی دانشکده بهداشت

تعاریف

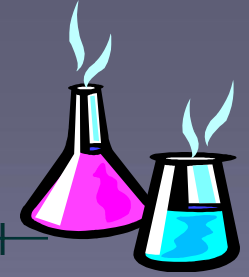
- ایمنی میزان یا درجه دوری از خطرات می باشد
 - کلمه میزان یا درجه نشان دهنده نسبی بودن ایمنی است و ما همیشه باید به فکر درست ارتقا سطح ایمنی باشیم
 - خطر: شرایطی که پتانسیل آسیب رساندن به انسان، تجهیزات و محیط را دارد
 - شعار ایمنی:
- DO it right Do it safe

Introduction to the Laboratory





Let's Get Started!

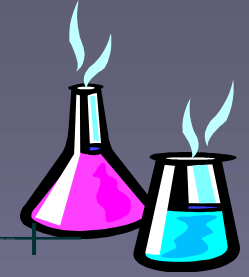


- ▶ Working in a laboratory can be an exciting experience. It can also pose many threats and hazards that a traditional classroom does not. That is why it is important to know your surroundings. Know where the exits to your room are.

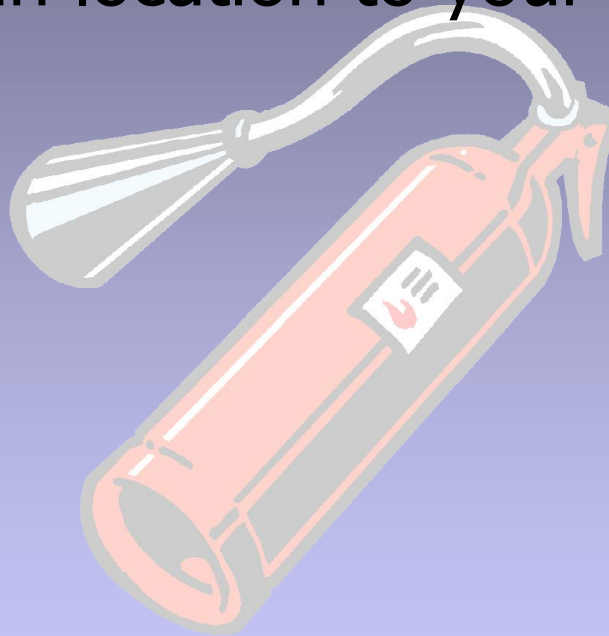




Know Your Surroundings



- ▶ It is recommended to be aware of the fire extinguishers in location to your laboratory.





Know Your Surroundings



- ▶ Know where the fire alarm is in proximity to your laboratory.



Training



Know Your Surroundings

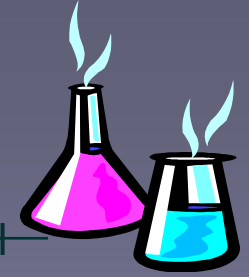


Many laboratories contain hazardous substances.

- ▶ A *hazardous substance* is defined as a material/substance that poses a physical or health hazard. This includes both chemicals and biological agents.
- ▶ A *Biohazard* is defined as any organism that is capable of replication and is capable of causing disease in human, animal or plant.
- ▶ There are differences between a physical hazard and a health hazard. Let's take a look.

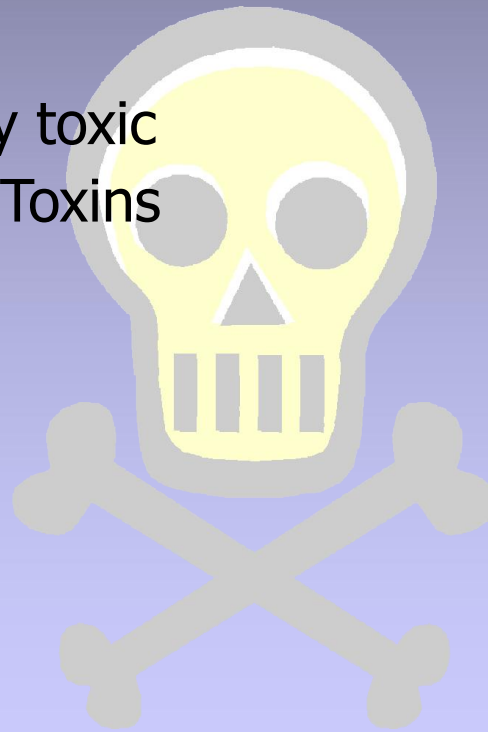


Know Your Surroundings



A health hazard has the following characteristics:

- ✓ Carcinogen
- ✓ Toxic or highly toxic
- ✓ Reproductive Toxins
- ✓ Irritants
- ✓ Corrosives
- ✓ Sensitizers
- ✓ Hepatotoxins
- ✓ Nephrotoxins
- ✓ Neurotoxins





Know Your Surroundings



A physical hazard has the following characteristics:

- ✓ Explosive
- ✓ Flammable
- ✓ Oxidizer
- ✓ Pyrophoric
- ✓ Organic peroxide
- ✓ Compressed gas
- ✓ Combustible liquid
- ✓ Unstable (Reactive)
- ✓ Water-reactive





Know Your Surroundings



- ▶ When physical hazards and health hazards exist, it is very important to know where the eye wash/safety shower is located. Unexpected accidents do occur and knowing where to go at the time of an emergency can reduce injury/illness.

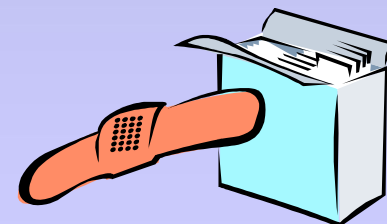




Know Your Surroundings



- ▶ First aid kits have a variety of quick relief items.



Know What Hazards are Present



مخاطرات عمده در آزمایشگاه:

- حریق
- شکستن ظروف شیشه‌ای
- اجسام تیز
- پاشش
- ظروف تحت فشار و سیلندرهای گاز
- گرما ، سرما
- مخاطرات شیمیایی
- مخاطرات بیولوژیکی
- تشعشعات
- And many more!

