

# Fire Safety

**Each of these three elements must be present at the same time to have a fire. A fire will burn until one or more of the elements is removed.**

### **Fuel**

Any combustible material – solid, liquid or gas

### **Oxygen**

The air we breathe is about 21% oxygen –  
fire needs only  
16% oxygen



### **Heat**

The energy necessary to increase the temperature of fuel to where sufficient vapors are given off for ignition to occur

# There are 4 classes of fire:



## Class A

Ordinary combustibles or fibrous material, such as wood, paper, cloth, rubber, and some plastics.

## Class B

Flammable or combustible liquids such as gasoline, kerosene, paint, paint thinners and propane.



## Class C

Energized electrical equipment, such as appliances, switches, panel boxes and power tools.

## Class D

Certain combustible metals, such as magnesium, titanium, potassium, and sodium.



# To Prevent Fires

**Class**



**Ordinary Combustibles:**

- Keep storage and working areas free of trash.
- Place oily rags in covered containers.

**Class**  ⇒ **Flammable liquids or gases:**

- ♦ Don't refuel gasoline-powered equipment in a confined space, in the presence of an open flame, or while the equipment is hot.
- ♦ Keep flammable liquids stored in a tightly closed container and away from spark producing sources.
- ♦ Use flammable liquids only in well ventilated areas.

**Class**  ⇒ **Electrical Equipment:**

- ♦ Never install a fuse rated higher than specified for the circuit.
- ♦ Investigate any appliance or electrical equipment that smells strange. Unusual odors can be the first sign of a potential fire.
- ♦ Utility lights should always have some type of wire guard over them.

**Class**   $\Rightarrow$  **Flammable metals:**

- Knowledge of the properties of the metals and using good judgment and common sense will assist you in controlling or avoiding potential fires/reactions.

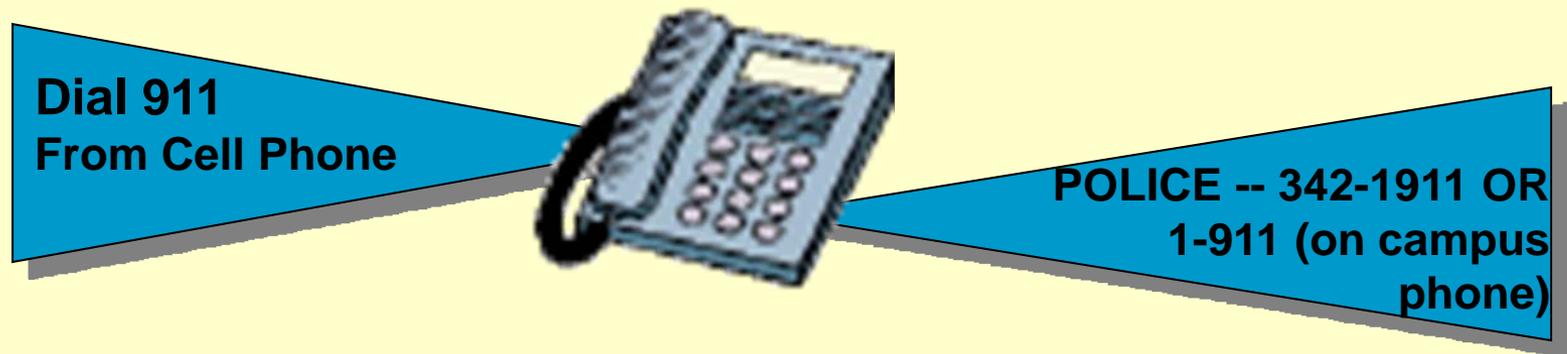
# Be prepared for a fire emergency

- Check the location of fire alarms and know how they work.
- Learn your building evacuation plan.
- Know where your two nearest exits are located. Learn how doors swing and where stairs lead.
- Make sure nothing blocks fire pulls, extinguishers and emergency exits.
- Learn the sound of your building fire alarm.
- Post emergency numbers (including security and first aid) near your telephone.
- Make sure you know what to do if the fire alarm sounds. Plan your escape.



## When you notice a fire:

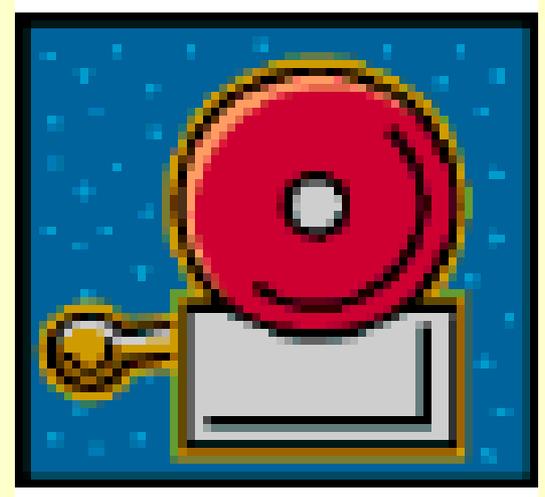
- Pull the nearest fire alarm “pull station” while exiting the floor.
- If you cannot fight the fire with an extinguisher, close the door to the room where the fire is starting, if it is safe to do so. This will help to delay the smoke spreading throughout the building.
- **Call the University Police Department and / or local 911:**



- Do not assume that anyone else has already called the fire / police departments.
- Stay calm and be prepared to answer the operator’s questions regarding the emergency.
- **EVACUATE !**

## When you hear the fire alarm:

- Leave at once, evacuate using the nearest exit.
- Do not delay yourself by gathering personal items. Your safety always comes first.
- Before you open any door, feel the door with the back of your hand. If the door is cold, slowly open it a crack.
- If there is no smoke in hallways or stairwells, follow your building's evacuation plan. Get out quickly using designated fire exits.



## When you hear the fire alarm (continued):

- Close doors behind you, however do NOT lock the door. Locking the door hinders the fire department's search and rescue efforts.
- The stairway will be your primary escape route. **Never, never use elevators under any circumstances.**
- Once in the stairway, proceed down to the first floor and out of the building. Never go up.

## If you are trapped in smoke or heat:

- Before you open any door, feel the door with the back of your hand. If the door is warm to the touch, DO NOT attempt to open the door.
- Stuff the cracks around doors with towels, rags, clothing or tape, and cover vents to keep out smoke.
- Stay low to the floor, and if possible, cover your mouth and nose with a damp cloth or dust mask to help you breathe.
- If there is a phone in the room where you are trapped, call the fire department to tell them exactly where you are located. Do this even if you see fire apparatus on the street below.



## If you are trapped (continued):

- Wait at a window and signal for help. Do not panic or jump!!  
WAIT!
- If possible, open the window at the top or bottom, but do not break it, you may need to close the window if smoke rushes in.
- Be patient. Rescuing all the occupants of a building can take several hours.



## After a fire emergency:

- Once you are out of the building, **STAY OUT!**  
Do not go back inside for any reason.
- Report to your office coordinator and /or building safety coordinator for roll call at your designated assembly point. Do not leave the area until you are sure you are accounted for. We don't want firefighters to risk their lives and health trying to find you if you've already left campus.
- Tell the fire department immediately if you know of anyone trapped inside the building.
- Only re-enter if and when the fire department tells you it is safe to do so.

In the event of a fire,  
your personal safety is your  
most important concern.

Remember – you are  
not required to fight a fire.

## **BEFORE you consider fighting a fire . . .**

- ❖ Call the fire department and / or the University Police Department.
- ❖ Confirm that the fire is small and is not spreading.
- ❖ Confirm you have a safe path to an exit not threatened by the fire.
- ❖ You know what kind of extinguisher is required and the correct extinguisher is immediately at hand.



## **NEVER fight a fire if . . .**

- ❖ The fire is spreading beyond the immediate area in which it started, or if it is already a large fire.
- ❖ The fire could block your escape route.
- ❖ You are unsure of the proper operation of the extinguisher.
- ❖ You doubt that the extinguisher you are holding is designed for the type of fire at hand or is large enough to fight the fire.

# Multi-Class Ratings

Many extinguishers available today can be used on different types of fires and will be labeled with more than one designator, e.g. A-B, B-C, or A-B-C.

This label shows that this extinguisher can be used on ordinary combustibles (A) or flammable liquids (B). The red slash through the last symbol tells you that the extinguisher cannot be used on electrical fires (C).

**Be advised that most fire extinguishers will function for less than 40 seconds.**



# 10 Tips on How and When to Use a Fire Extinguisher

1

Most fires start small. Except for explosions, fires can usually be brought under control if they are attacked correctly with the right type and size of extinguisher within the first 2 minutes!



2 A fire extinguisher should be "listed and labeled" by an independent testing laboratory. The higher the rating number on an A or B extinguisher, the more fire it can put out. Be careful, high-rated units are often heavier models. Make sure you can hold and operate the model you are using.



**3** Before attempting to fight a small fire, be sure everyone is out of the area. Ensure someone has called the fire department. If the fire starts to spread or threatens your escape path, get out immediately!

The operator must know how to use the extinguisher quickly without taking time to read directions during an emergency. Remember that the extinguishers need care and must be recharged after every use.

**4**



# IF YOU FIGHT A FIRE, REMEMBER THE WORD P A S S

PULL . . . AIM . . . SQUEEZE . . . SWEEP



**5** **PULL**... the pin. Some extinguishers require releasing a lock latch, pressing a puncture lever or other motion.

**6**  
**AIM**... low, pointing the extinguisher nozzle (or it's horn or hose) at the base of the fire.





**7** **SQUEEZE**... the handle. This releases the extinguishing agent.

**SWEEP**... from side to side at the base of the fire until it appears to be out. Watch the fire area in case fire breaks out again, and repeat use of extinguisher if necessary.

**8**



**9** Read and follow the directions on your extinguisher. If you have the slightest doubt about whether or not to fight a fire – **DON'T!** Get out and close the door behind you.

**Remember!**

**Your Safety Comes First**

**When in doubt,  
leave the fire  
fighting to the  
professionals**