

MODULE OF SKILL LABORATORY PRACTICE

BLOCK : DISASTER RELIEVE MEDICINE
TOPIC : BASIC FIRE FIGHTING

I. GENERAL OBJECTIVE

After completing skill practice, the student will have knowledge and skill to detect and extinguish a fire only when it is safe to do.

II. SPECIFIC OBJECTIVES

At the end of skill practice, the student will have a knowledge and skill of the following:

1. Types of fire
2. Types of fire extinguishers
3. Fire extinguisher features
4. Fire extinguisher operation
5. Fire extinguisher maintenance

III. SYLLABUS DESCRIPTION

Syllabus Description

Sub Model Objective

After finishing skill, the student will able to detect and extinguish a fire in the most secure way.

Expect competencies

Student will able to demonstrate the procedure to use and maintenance the fire extinguisher.

Method

1. Presentation
2. Demonstration
3. Coaching
4. Self practice

Laboratory facilities

- a. Skills laboratory
- b. Trainers
- c. Student Learning Guide
- d. Trainer's Guide
- e. References

Equipment arrangement

All equipment required for this topic include :

- a. Multimedia equipment
- b. Manequin
- c. Fire Extinguisher

V. LEARNING GUIDE

No	Procedures	0	1	2
Types of Fire				
1.	<p>Identify the types of fire</p> <p>Class A fires- Are ordinary combustible materials like burning paper, wood, rags, plastic etc.</p> <p>Class B fires- Involve flammable or combustible liquids such as gasoline, oil, grease and paint.</p> <p>Class C fires- Involve energized electrical equipment, such as office equipment, outlets, motors, power tools and heaters. Water is a particularly dangerous extinguishing medium for class C fires because of the risk of electrical shock.</p> <p>Class D fires- Involve combustibles metals, such as magnesium, aluminum, potassium and sodium. These material burn at extremely high temperatures and will react violently with water, air and/or other chemicals. Class D fires are usually found only in industrial settings, and should be extinguished with a dry powder chemical only.</p>			
Types of Fire Extinguishers				
2	<p>Identify the types of fire extinguishers</p> <ol style="list-style-type: none">1. Water Extinguishers- Are a convenient extinguishing agent but is only effective on Class A fires. The water cools the fuel thereby reducing the heat. The maximum range for water based fire extinguishers is 15 to 20 feet away from the fire.2. Carbon Dioxide Extinguishers- Can be used on both Class B & C fires. It extinguishes primarily through a smothering action by establishing a cover between the fuel and the surrounding air. When using a carbon dioxide extinguisher, you should stand 3 to 6 ft away from the fire to gain the maximum effectiveness.3. Dry Chemical Extinguishers- There are several different dry chemical agents. The most common of all is sodium bicarbonate, which is nothing more than baking soda. There is also mono ammonium phosphate, which is considered a multi-purpose agent that can work on Class A, B, and C fires. The maximum range for this type of extinguisher is 12 to 20 feet away from the fire.4. Dry Powder Extinguishers- Are designed to extinguish Class D fires, which are combustible metals such as, aluminum, magnesium, sodium,			

	and potassium. Dry powder extinguishers are used on Class D fires only. The maximum range for this type of extinguisher is 12 to 20 feet away from the fire.			
3	Determine fire extinguisher will be used			
4	Fire Extinguisher Component a. Carrying handle/operating lever b. Locking pin c. Pressure gauge (except for CO ² extinguishers) d. Discharge nozzle or horn e. Instructional label f. Inspection tag			
Fire Extinguisher Operation				
5	P- Pull the safety pin, this will allow you to discharge the extinguisher			
6	After pulling the pin on the fire extinguisher stand back several feet from the fire			
7	A- Aim the extinguisher the base of the fire, this will allow you to hit the fuel			
8	S- Squeeze the top handle or lever, this will release the pressurized extinguishing agent			
9	S- Sweep the extinguisher hose from side to side until the fire is completely out.			
10	Wait and carefully check that the fire is out and has not reignited. If it has reignited, spray again – but remember that a typical fire extinguisher usually provides only 60 seconds of extinguishing power.			
11	Whenever possible, use the buddy system when using a fire extinguisher.			
12	If you have doubt about your personal safety or if you cannot extinguish a fire, leave immediately and close the doors (do not lock them). Leave the area, but contact 113 or 1131 to relay whatever information you have about the fire			
Fire Extinguisher Maintenance				
13	Fire extinguishers should be mounted on the wall to prevent being damaged.			
14	The area in front of the extinguisher shall be kept clear at all times.			
15	The pressure gauge should be in the green zone at all times.			
16	Fire extinguishers should be inspected on a monthly basis.			
17	Know the location of all fire extinguishers in your facility.			
Points to remember				
18	Before attempting to use an extinguisher, make sure all of the following apply: a. The building is being evacuated and the fire department has been called. b. The fire is small, contained and not spreading beyond its starting point.			

	<p>c. The exit is clear, there is no imminent peril, and you can fight the fire with your back to the exit.</p> <p>d. Know what type of fuel is burning.</p> <p>e. The proper extinguisher is on hand and you know how to properly and safely use it.</p>			
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VI. CRITERIA OF PERSONAL PERFORMANCE EVALUATION

SCALE	PERFORMANCE ACHIEVEMENT	COMMENT
1	If students are doing the task that only fill less than 35% of whole items for each step precisely	LOW
2	If student are doing the task that only fill 35% - 60% from whole items for each step precisely	MILD
3	If student are doing the task that only fill 60% - 78% from whole items for each step precisely	MODERATE
4	If student are doing the task that fill at least 80% from whole items for each step precisely	EXCELLENT

References

1. Wieder, Michael & Carol Smith, 1998, Fire Inspection and Code Enforcement 6th edition
2. Hall, Richard & Barbara Adams, 1998, Essentials of Fire Fighting 4th edition
3. National Fire Protection Association, 1988, Fire Extinguishers Fight or Flight