Foam FE

- Filled with inert CO_2 gas;
- Highly universal use in extinguishing burning flammable gases and liquids as well as solid materials;
- However, the main use of this extinguisher consists in extinguishing of devices under electrical power;
- The effective extinguishing distance is up to approximately 1.5 metres;
- When extinguishing in confined spaces, it is necessary to ensure sufficient ventilation (inert gas expels oxygen and there is a risk of the person losing consciousness).

FIRE HYDRANT

A device intended to supply fire-fighting water directly to the site of fire, or for refilling fire engines with water. Fire hydrants are classified as underground, ground-level (outdoor) and wall (indoor) types.

- The most effective means for primary fire-fighting;
- Safe distance while extinguishing the fire;
- Sufficient quantity of fire-fighting agent;
- Effective fire-fighting distance of 15 metres or more;
- Water is used as the fire-fighting agent;
- Fire hoses may be extended when using older types of hydrants;
- New types of hydrants contain full continuous hoses enabling use by a single person.

EVACUATION PRINCIPLES

- When leaving evacuated premises, close (but do not lock!) the doors and windows;
- Leave the evacuated space using the shortest escape route;
- During evacuation, remain calm, do not run or panic; walk quickly from the premises;
- Do not use other than evacuation lifts during evacuation;
- Assist children, disabled or injured persons;
- Before opening a door during escape, touch the door to make sure that it is not hot; if this is the case, look for some other escape route and warn others;
- Come to the meeting place after leaving the evacuated building in order to check the number of evacuated persons;
- Provide all information on the course of evacuation and other facts that might assist fire-fighting units.

If the building cannot be left through the escape routes:

- Remain calm;
- Crouch if the space is filled with smoke;
- Draw attention to yourself through a window – using a towel, piece of clothing, etc., switch the light in the room on and off if it is dark outside.

Date:
Name:

Student´s signature:

INITIAL TRAINING for STUDENS

SAFETY AND OCCUPATIONAL HYGIENE
+
FIRE PREVENTION

The training text is based on the valid legal and other regulations aimed at safety and occupational hygiene and fire prevention, and on the internal regulations of the 3rd Faculty of Medicine of Charles University. The document is binding on students of the 3rd Faculty of Medicine and persons present at the workplaces of the 3rd Faculty of Medicine who have been acquainted with it, as appropriate.

SAFETY IN WORK WITH MACHINES, TECHNICAL EQUIPMENT, INSTRUMENTS AND TOOLS

- Equipment may be used only for the purposes and under the conditions, for which it is intended, in compliance with the operational documentation.
- Maintenance and repairs of equipment must be carried out in compliance with the instructions provided by the manufacturer and, if special professional qualification is required for certain activities, such activities may be carried out only by a person with the relevant special professional qualification.
- Equipment may be turned on only by an intentional act of the operator by means of a device intended for this purpose.
- Equipment must be provided with warning or information signs, notices, markings or signalling in accordance with the instructions for use provided by the manufacturer.
- Repairs, setting, adjustment, maintenance and cleaning of equipment may be carried out only if the equipment is disconnected from the power lines; if this is not technically feasible, suitable safety measures must be implemented.
- Control of the safety of operation of equipment prior to bringing the equipment into operation shall be carried out in accordance with the accompanying documents provided by the manufacturer.
- Equipment must be provided with operational documentation. Such documentation must be kept during the entire time of operation of the equipment.

PRINCIPLES OF SAFETY IN WORK WITH ELECTRICAL APPLIANCES

- Become acquainted with the safety instructions, particularly with the operating instructions.
- Regularly check electrical appliances at the workplace as to whether or not they are visibly damaged; this must be done particularly in relation to the power cord, extension cord, plug and socket.
- Before every usage, carefully check whether or not the covers or other parts of the appliance are damaged.
- Report all defects and suspected defects to the superior employee.
- Make sure that the switch is in the off position before plugging in the appliance.
- Protect electrical appliances against water; they must not be exposed to rain, used in a damp, wet or explosive environment.
- Do not move appliances and do not lift them by the power cords.
- Repairs to electrical appliances may be carried out only by persons with appropriate qualification.
- Do not use damaged electrical appliances.

PRINCIPLES OF SAFE HANDLING OF MATERIALS

- Do not underestimate handling and do not overestimate your abilities.
- Keep passageways clear – do not place materials not in use in passageways and manipulation routes.
- Avoid unnecessary operations – render the remaining operations easier.
- When lifting and moving loads, try to have the centre of gravity of the load as close to the body as possible.
- When moving loads horizontally between workplaces, try to keep the load at a constant height.

The weight of loads that are moved manually by men must not exceed 50 kilograms with a good grip for occasional lifting and moving and 30 kilograms for frequent lifting and moving. Occasional lifting and moving relates to a period of less than 30 minutes per shift.

Permissible weight and distance for moving loads by women:

Women

Weight (kilograms)	15	10	5
Maximum distance (metres)	10	15	20

Pregnant women, mothers up to nine months after childbirth

Weight (kilograms)	7.5	5	2.5
Maximum distance (metres)	10	15	20

REQUIREMENTS FOR WORK WITH COMPUTERS

- The monitor must be placed so that lights or other light sources, such as windows etc., are not reflected in the monitor.
- The screen must not contain any defects, such as oscillations, floating or flickering of individual characters, lines, variations in brightness etc.
- The brightness and contrast of monitors must be individually adjustable.
- The distance between the eyes and the screen must not be less than 40 centimetres.
- The top of the monitor should be at the same height as the eyes, not higher.
- After every two hours of continuous work, a safety break lasting five to ten minutes must be taken.

SAFETY MARKING

PROHIBITION - red colour, circular shape, black pictogram
WARNING - yellow colour, triangular shape, black pictogram
COMMAND - blue colour, circular shape, white pictogram
SAFETY - green colour, rectangular or square shape, white pictogram

Caution! Red markings of rectangular or square shape are informative markings for material means of fire prevention. Red markings with white arrows indicate the way to those means, rather than the direction of escape from the building.

MOST FREQUENT CAUSES OF FIRE

- Defect of the wiring system or an electrical appliance;
- Starting a fire due to negligence or omission when using gas and electrical appliances;
- Negligent storage of flammable materials (failure to maintain a sufficient distance from heaters or lights);
- Performance of work with elevated fire hazard (e.g. welding) without sufficient organizational and technical arrangements;
- Intentional starting of a fire;
- Smoking (cigarette buts in a waste bin), etc.

PRINCIPLES OF EXTINGUISHING FIRE USING FIRE EXTINGUISHERS

- It is necessary to estimate the extent of the fire and the kind of burning materials as accurately as possible;
- Choose a suitable type of fire extinguisher;
- Attempt to extinguish the fire or at least localize it using fire extinguishers;
- Use a fire hydrant if fire extinguishers are not sufficient;
- For reasons of prevention, other persons should commence preparations for use of a fire hydrant even if it is anticipated that the fire will be extinguished by fire extinguishers;
- Fire extinguishing operations, particularly with the use of a fire hydrant, should always be carried out in two-man groups;
- Burning materials shall be extinguished from the top to the bottom;
- Protect yourselves from radiant heat, flames and explosions, if appropriate, by moving close to the ground;
- If there is a suspected fire inside a room, never open the door to the room while standing in front of the door; use shelters;
- If possible, continuously approach the burning materials when extinguishing the fire, up to maximum effective distance;
- When water is used in enclosed premises, the persons fighting the fire are threatened by scalding (move close to ground, protect parts of the body, if appropriate, especially the neck and ears);
- If it is not possible to extinguish the fire by the available means, attempt to close the door to the room or the nearest fire door, as appropriate.

FIRE EXTINGUISHERS (FE)

Fire extinguishers are devices that can be used to extinguish a fire in the initial stages.

Water FE

- Suitable for extinguishing solid flammable materials;
- Not suitable for extinguishing flammable liquids, except for water-based liquids;
- Use for extinguishing devices under electrical power is prohibited;
- The effective extinguishing distance is up to approximately 4 metres.

Powder FE

- Universal use including extinguishing of devices under electrical power;
- The effective extinguishing distance is up to approximately 2 metres;
- When using older fire extinguishers (with a capping inlet) there is a danger of streamline blockage during interrupted extinguishing.

DATE: signature_____