Fire protection and health and safety

Outline:		
1 Fire protection - Act no. 133/1985 Sc., Fire Protection as amended at the Decree $246/2001$ on Fire Prevention, Regulation.23 / 2008 Fire alarm Directive, portable fire extinguishers, fire alarm systems (EPS), escape routes, increased fire danger		
2 Safety and Health at Work - Labour Code no. 262/2006 Sc., as amended at the Decree 309/2006 Sc. as amended at the Decree - evidence of injury, use of personal protective equipment, occupational hazards,		
3 Safety regulations on the t	reatment of electrical equipme	ent
The overall schedule of training points 1-3 is contained in 1 lesson.		
Supervisor:		
Pavel Šimůnek	Signature Pau	el Giniel
I certify by signature that I was familiar with the topic and I understand them:		
Name	Date of birth	Signature

Starting the training of students - Fire protection,

1.- Training on fire protection

The Law on Fire Protection the basic law in the performance of duties of central authorities, legal entities and individuals in the fire service, the fire protection units, the position and the organization of the Fire and Rescue Service (FRS) .Member operating activities under the fire hazard in categories: no increased fire danger with increased fire risk, with high fire danger. According to these categories is determined by the size of the range of fire protection measures in organizations and companies. In all 5 main buildings of the institution there is an increase in fire dangerier and on the basis that they are implemented all relevant fire protection measures. Other buildings are without increased fire danger.

- a. <u>Fire alarm Directive (according to the Decree on Fire Prevention)</u> the basic document of Fire Protection, Faculty of Science, is sent to all heads of departments and is posted in the hallways. It should be read in training. It contains the basic obligations of employees, students, faculty and visitors, and a list of AROs fire. They are in it for the phone numbers EIG responsible faculty staff and emergency services
- b. b) Fire evacuation plans (according to the Decree on fire prevention)

 They are included in the evacuation plan faculty at different risk situations. Graphical representation of the evacuation plan are placed in a prominent place in the corridors of five main buildings of the Faculty
- c. <u>Escape routes</u> escape routes are all corridors and exits in buildings. These paths must always remain free. Escape routes are marked by arrows, photoluminescent signs are important.
- d. Portable fire extinguishers

Water - extinguishing agent is a solution of water and potassium carbonate, cooling effect, suitable for fighting solids unsuitable for flammable liquids, paints, tar, oils and fats. Never Never use electrical appliance.

Foam extinguishing water solution concentrate foamer, preventing access of air, suitable for flammable liquids. Never use equipment energized and burning light metals.

Powder - is a universal powder extinguishingt, which reduces the energy of combustion. Suitable for solid, flammable liquids, gases, equipment energized. Not suitable for sawdust, coal dust, food, fine furnishings.

Snow - extinguishing agent is carbon dioxide, which cools and suffocates the fire, expels- displaces air, suitable for flammable liquids, gases, food, fine mechanics, energized equipment. Do not extinguish loose and loose materials.

Use a portable fire extinguisher

- Use to extinguishing the flames at a distance of up to 1.5 2 m
- Remove the locking pin from the handle of the device
- Direct the flow path to the fire
- Press the handle of the fire extinguisher (turn the knob)
- Current extinguishing agents directed to the lower part of the flame and gradually from front or from the sides of the flame liquidate
- After already been extinguished flame extinguisher off, wait a while and if re-ignition of the flame continue in fighting

e) Fire alarm

In all the main buildings of the Faculty of Sciences. Charles University is installed fire alarm systems (EPS), which allows you to see the fire in the bud. In all rooms are placed on the ceiling smoke detectors, which sensitively registering not only smoke from a possible fire, but also the dust in the renovation and repair and also for example. Superheated steam from the rain. The kitchenettes are placed temperature sensors. In addition, fire detectors in hallways, through which workers can also declare a fire alarm. All electronic information from sensors and detectors focus on EPS panels in fire Reporting Offices, which are gatehouse buildings Albertov 6, 8 and Hlavova Viničná 7 and Benátská 2- All porters are trained in operating EPS, the fire alarm and calll firefighterst. Workers from the workplace, where it comes to alarm signal (to confirm that the respective sensor lights in red) are required to immediately connect with gatehouse and report what happened. The sound of sirens information on fire danger and a challenge to all staff and students to leave the building.

All work and teaching, which can generate smoke ,dust or vapor must be notified in advance to the reporting office fire, which switches off the sensor. During the time off sensors are relevant staff required to pay increased attention to fire safety and not to leave the workplace. Sensors must not be switched off outside working hours, or supervision must be ensured. Termination risk activities must be reported immediately to the reporting office fire to the doorman again involved sensor.

2. Training on safety and health at work

The use of personal protective equipment - each organization is required to provide employees and students, in which it is required to protect their health, free use of required personal protective equipment. Every responsible head is obliged students to use personal protective equipment appropriate for work use. Each student is required to familiarize themselves with the manner of use of personal protective equipment.

Obligations of students in the field of occupational health and safety

- Students have an obligation to receive instruction on the risks , to take lessons on the risks that are at their job or workplace hazards, to receive instruction to reduce these risks and comply with them.

Each student is required to take care of your safety, about their health and safety and the health of others.

Students are also obliged to:

-To get acquainted with all applicable regulations, responsibilities, guidelines and regulations applicable in the faculty, the obligation is to respect and not to circumvent the regulations Follow all instruction for use, technical specifications for all equipment, and all the technical resources of the faculty.

Do not perform activities which requires a special authorization if such authorization is not. In particular, it is forbidden to interfere with electrical equipment, gas equipment, pressure or lifting

Do not use damaged equipment, incomplete, with limited functionality, endangering health and safety, etc.. Any damaged or incomplete equipment can be used only after complete removal of the defect.

- -Inform instructional staff or other responsible faculty staff identified deficiencies in the area of occupational health and safety or any defect endangering safety.
- Maintain order and cleanliness in the workplace in particular with regard to the presence of potential sources of accidents
- Attend trainings organized in the field of occupational health and safety and to submit to the designated test knowledge
- Follow the instructions of the responsible faculty members, including instructions given orally
- Respect installed signs and warning signs.
- Do not enter place where entry is prohibited or allowed only to authorized persons.
- When moving objects in the Faculty of use specified routes and exits, move with a reasonable degree of care.

When working at heights ie. Above 1.5 m above the floor or ground using appropriate equipment (ladders, stairs, platforms)

- Store and postpone all objects, tools, equipment, waste anything else so do not cause injury, accident, interfere with the safe movement and prevent barriers for escape routes and exits. This concerns in particular the stability, height of the danger of spillage, breakage, etc.. Do not handle loads whose weight exceeds the set limit for individuals, men, women, and so on. When working with chemicals in the building (flammable and non-flammable) follow instructions and provisions for the job, use for packaging, designated places and designated furniture. Observe in particular, to avoid confusion chemicals for consumption and even the use of improper packaging or improper placement.
- At the end of working hours, shift work or activities of state for work, equipment or premises in a safe condition.

The obligation to respect the fundamental principles of safe work

- have sufficient space for activity, to ensure stability, strength-
- use aids complete, undamaged and correct to the purpose of the activities carried
- Protect body organs with regard to the possible danger
- safely store all subjects, with a maximum height of 2 m, leave the handling and storage of sufficient space
- When interruption of work, including short-term to ensure the safety of the workplace and used tools and equipment
- Packaging material residue to clean up waste in a safe manner
- Not to establish any provisional, that could endanger persons or damage furnishing **Smoking is prohibited in all buildings of the Faculty**

3.- Safety regulations on the treatment of electrical equipment Service and work with electrical equipment

- a) Persons without electrical qualification can operate only simple el. Low and high voltage, so that the operator can not be in contact with live parts. They can be switched on and off by a simple electrical devices for electrical equipment off state can move and extend flexible cords connecting cords provided with respective connecting portions (the socket and plug), exchange
- b) on energized equipment, these workers may not work, unless it is a power supply with safe voltage according to the area or a safe current.
- c) Persons without electrician may carry out maintenance work (cleaning, lubrication, routine inspection without disassembly using tools, etc..), but only when switched off electrical equipment and according to the manufacturer's instructions

- -d) interference to electrical equipment tampering with electrical equipment can cause electric shock, fire, explosion, and therefore is prohibited.
- e) Before moving or the running of machinery or appliances connected to the electrical system flexible cord and plug must be conducted safely disconnected from the mains plug from the socket.

First aid for electric shock

To rescue work.

- a) extricate the victim out of reach of el. current
- b) If not breathing, give artificial respiration immediately
- b) If no palpable pulse, immediately initiate indirect heart massage
- c) Call a physician
- d) As soon as possible notify the appropriate department head

The victim can get out of range power supply:

- a) turning off the power. current
- b) Slide the wires or interruption
- c) Evaporation affected
- d) In all cases, the rescuer to remember their Stripping

Once the victim get out of reach of el. current savior is obliged to give him first aid until the doctor arrives.

Indirect cardiac massage

Kneel on one of the sides of disabled persons. The edge wrist: Place in the center of the chest and the other hand on the first. Fingers upper hand hook it between his fingers lower. Cardiac massage- we use the weight of the upper body, elbow joints must be continuously extended, pressure is exerted on the breastbone top-down vertical to the ground the whole upper body. Fingers should not rely on ribs, it leads to transfer pressure off the sternum and subsequently to reduce the effectiveness of cardiac massage, increasing the risk of injury to the ribs and organs in the chest and abdomen. Compression depth for an adult is 4-5 cm. Pressure release and should last as long Frequency compression remains 100 / min after each compression is necessary to allow the chest, arms, however, does not lose contact with the chest.