I. GENERAL OBJECTIVES

1. The aim of the training:

The aim of the training is to make students familiar with:

- an outline of the occupational health and safety system in Poland,
- basic rules and regulations of occupational health and safety resulting from the specificity of the WSE,
- rules of conduct in case of fire, failures, general threats etc,
- rules of premedical (first) aid.

2. Legal basis for organization of the training:

- Labour Code, Articles 237\textsuperscript{2}, 237\textsuperscript{3}, 237\textsuperscript{4}, 237\textsuperscript{5} /consolidated text, Journal of Laws of 1998 No. 21, Item 94, as amended/
- Ordinance of the Minister of Science and Higher Education of 5\textsuperscript{th} July 2007 on occupational health and safety regulations in higher schools /Journal of Laws No. 128, Item 897/.

3. Participants of the training:

The training is intended for students starting their studies at the Warsaw School of Economics.

4. Form of the training:

The training is organized in form of an instruction - based on a detailed programme prepared by the organizer as presented in part II.

The programme includes up-to-date provisions of the Labour Code, rules and regulations of industrial safety and information on physical environment, rules and requirements of ergonomics and work physiology related to the didactic process conducted at the Warsaw School of Economics.
5. Training didactics:

The training will be conducted in an electronic form (the so called e-learning) with the use of didactic means such as films /e.g. fire safety, "First Aid" etc./, as well as information boards, diagrams, charts and instructions.

II. GENERAL TRAINING PROGRAMME DETAILS

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Total time: 2,5

Doctoral studies

Occupational health and safety (BHP) E-learning training is optional for doctoral students.

First degree and second degree studies

Occupational health and safety (BHP) E-learning training will end with an obligatory test.

ATTENTION!
We'd like to ask you not to leave the passing of the test for the last moment. Let us remind you that in case of failing the test you have the possibility to take the test again after 24 hours from the previous attempt.

Students can use the BHP training materials and fill in the test at home or in the e-sgh laboratory which you can find in room 226 in the Main building of WSE. Workers of the The Centre for Development of Distance and Continuing Education are willing to help and answer any questions connected with the e-learning training or using the platform.

The Assessment test

The assessment test consists of 10 multiple-choice questions. In order to pass the test you need to give at least 60% of correct answers. In case of failure there is a possibility of taking the test again. The test will be available after 24 hours from the last generating of the test.

WHAT IS OCCUPATIONAL HEALTH AND SAFETY?

Occupational health and safety is a term, or even - as some people believe - a catchphrase which is associated with a boring training on issues evaluated a priori as not very important, or even unnecessary, and always evoking a pitiful smile on the face. Whose face?

Naturally of those who are thoroughly satisfied, happy, healthy and physically fit, who have not so far experienced any unpleasant surprises such as injuries or diseases. Not for long, we could say. On the other hand there are statistical figures, values, losing the joy of life, smaller or greater disability and death. Of importance are also substantial costs of accidents borne by the whole society (treatment, rehabilitation, compensations, benefits, pensions etc.)

IS IT REALLY TRUE?

Accidents at work, at school, on the road, but also at home, during recreational activities, during the most basic activities of a man and everywhere people stay happen every day. If we read a daily paper with more attention, we can very often find examples of accidents, mostly extremely serious ones (death or severe disability of the victims), whose frequency reflects the scale of the problem. The rest should not necessarily be left unsaid as it constitutes the basis of the statistical figures.

Accidents at Work in Poland in 2004 According to National Economy Sectors (preliminary data)
Fatal Accidents at Work in Poland in 2004 According to National Economy Sectors (preliminary data)

Accident Rate in Poland in 2004 According to National Economy Sectors (preliminary data)

Source: GUS (Polish Central Statistical Office), Social Statistics Department, Monitoring of the Labour Market 'Accidents at work in 2004', Warsaw, 2005.03
WE COULD ASSUME THAT ALL PEOPLE (WE ARE NOT CONCERNED WITH EXCEPTIONS) WANT TO FEEL SAFE AND BE HEALTHY. BUT WHAT DOES IT MEAN AND HOW IS IT ACHIEVED?

Without going into details, we can say that safety is regarded as the state of peace and stability. In other words, the state of no threats. But, as we know, the possibility of a threat exists all the time. It means that the state of no threats is always desired but most often impossible to achieve.

The other part of the term occupational health and safety - occupational health - is most often defined as the state of physical wellbeing and the efforts to eliminate factors which can cause its deterioration (from the point of view of occupational medicine, e.g. physical, chemical, biological, psychological factors etc.).

Looking on the issue from a slightly different point of view, it can be stated that our lifestyle has the greatest impact on our health. As a result, there is a need for promoting human health in the area of occupational health and safety, and not only in the area of work, studies and leisure activities.

We could conclude from the above description that occupational health and safety is the area of knowledge which on the one hand deals with preventing unexpected events which may result in injuries or death of a person, but on the other hand also preventing professional diseases.

Occational health and safety can be also defined as a set of provisions, rules and methods of action aiming at preventing deterioration of human health and death in the course of the work.

In the modern world we can observe changes, not within years, but within months. New technologies bring each participant of the social life to even newer challenges, but at the same time they lead to new responsibilities and cause new risks. The problem is considerable taking into account losses incurred by the state economy only as a result of accidents, professional diseases, and, above all, because of illness absenteeism, which according to estimations accounts for around 4% GDP of our country. This is why it is so important to create a worker-friendly work and school...
As to our own environment, in the buildings of the Warsaw School of Economics the occupational health and safety (studying in a higher school has a lot in common with professional work) should be associated by its every participant with:

- safety of construction of all building facilities,
- fire safety,
- safety of using these facilities,
- proper hygiene and health conditions and environment protection,
- protection against noise and vibration, radiation, air pollution, etc.
- protection of justified interests of third persons,
- protection of the School's educational and cultural heritage.

The aim of this material is a relatively comprehensive description of the issues of safety of the community of the WSE from the point of view of functioning of an individual, in this case a first year student.

Five years of studies will pass quickly, hopefully with no dangerous accidents, and commencing professional work in the future will also initiate a new stage of health and safety education, this time on a more advanced level, based on much more legal provisions of the fundamental Act, i.e. the Labour Code, and the secondary legislation to that Code.

**DID YOU KNOW THAT:**

According to the preliminary data, in the first half of the year 2005 as many as 33 737 persons were injured in accidents at work, of which 195 persons lost their lives. The highest number of accidents was recorded in enterprises operating in the area of (according to the Polish Classification of Economic Activities):

- manufacturing 12,984 (38.5% of all accidents)
- trade and repairs 3,222 (9.6% of all accidents)
- health and social services 3,135 (9.3% of all accidents)
- transport 2,428 (7.2% of all accidents)
- construction 2,330 (6.9% of all accidents)

The most common causes of accidents (7,577 cases) were slipping, stumbling and falling.

**ACCIDENT THREATS AND HEALTH RISKS AT THE WARSAW SCHOOL OF ECONOMICS**

**Rules of moving around the premises of the Warsaw School of Economics (WSE) and among its individual buildings.**

As the premises of the WSE are composed of many big buildings, traffic routes are an important element of safety. This
area may be referred to as crucial because it is here that the highest number of events regarded as accidents (accidents at work) has been recorded in the last years.

The traffic routes are:

- pavements and road crossings,
- corridors and passageways inside the buildings,
- stairways,
- lifts.

Stairways, made of polished terrazzo, ceramic tiles and, in the oldest buildings, of varnished wood, are specific areas of the buildings with regard to health and safety. And though the regular maintenance is carried out with the use of agents reducing slipperiness of the floors, it is the stairs where injuries of lower limbs often happen. Small injuries, the effects of which wear off after a few days, as well as serious injuries with permanent negative effects for human health. To put it shortly, when moving from one place to another we cannot forget about the elementary functions of human body, like taking steps, especially in unusual circumstances (e.g. limited visibility, unexpectedly slippery surface as a result of rainfall or snowfall or spilled drinks near catering areas etc.). The last remark is particularly important since consequences of accidents resulting from slipping on a wet floor require a long period of convalescence.

Weather is a factor which determines the movement of persons between individual buildings. Rainfalls or snowfalls, accompanied by frost on the roads, increase the risk of slipping and falling.

The next impediment to movement of persons in the premises of the WSE are big groups of people gathering for a relatively short time who, for instance, leave a lecture hall or wait to enter it. In such situations the risk of danger is very high and it is highly recommended that traffic participants remain concentrated and alert.

Another crucial points in pedestrian traffic are unexpected obstacles appearing from time to time on the way, which are not necessarily justified. What we have in mind are first of all electric wires supplying power to temporary events organized in the old school facilities where technical equipment does not always allow for solutions which do not disturb the traffic. But it can also be other objects, like tables, chairs, stands, packages etc., which often appearing without having been arranged with administrative service of the School and narrow the passageways. It often happens that students waiting to enter a hall sit on the stairway steps and in this way completely block traffic routes. Also in other situations sitting on the stairs and working, for instance, on a mobile computer, creates some kind of risk for the sitting person as well as the equipment, which may be damaged. In brief, it is a negative habit which may have adverse effect on the general safety.

Speaking of habits, it is worth underlining at this point that sitting on the brass railings of the central level of the Parachute Hall (Aula Spadochronowa) is very improper. The effect of such nonchalance can be most tragic. Also leaning out over the railings is not reasonable, especially when combined with drinking tea, coffee or other liquids. Even the lightest packaging may cause serious health problems when it falls on the head of someone standing on the ground floor.
CAN LIFTS BE DANGEROUS FOR PEOPLE USING THEM?

Their producers will try to convince us that the risk is minimal, but life has its own ways and some cases of the so-called external doors opening even without the cabin behind them have been recorded. Impulsive entering into the door often ends tragically, especially when it happens on higher storeys.

Therefore each person using a lift should then act with caution and should not enter lift door without making sure that a cabin is waiting behind it. The situation described above has not yet happened in lifts in the premises of the WSE, so our warning is rather of general nature. This kind of accidents happen most often in case of older lifts equipped with less advanced safety and control systems. It is, however, ill-advised to ignore all warnings about faulty lifts, even if the cabin opens and it seems that the lift works properly.

Technical Equipment on the Premises of the WSE

The Warsaw School of Economics does not have technical equipment requiring special caution during operating and posing a threat for persons using it. Most of the technical equipment are computer sets, whereas there are much less photocopiers, printers and other small mechanical equipment. Naturally, the threat caused by them is rather small due to their mode of functioning. This does not apply, however, to electric power supply, in case of which there is a real threat for human life and health.

Using all kinds of drink machines poses some risk as well. In case of hot drinks there is a risk of scalding with hot coffee, tea or a drink containing milk. It has been noticed that students have a habit of not only walking through the corridors with a cups of hot drinks, but also getting with them on the lifts, which seems to be rather risky. Apart from the injuries mentioned above, there is also the issue of possible claims from persons whose clothes have been stained or damaged.

Alternating Electric Current Installations 230 V, 50Hz

Electric power is so common in our lives that it is difficult to imagine how a modern man could live without it. The electricity is the blood circulation of our civilization. 90% of space around us functions thanks to electric power. Apart from the unquestionable fact that what flows into electric sockets is beneficial, there is also the other side of the coin - the life and health threat for a human if it comes to a direct contact with electric current.

The effect of Electric Current on Human Body

The alternating current with the frequency of 50 Hz and voltage of 400/230 V is the most commonly used medium of electric power. It is a standard in our country. Almost all appliances which we encounter in our everyday life are powered by this voltage. This is why most electroshock and burns happen as a result of close contact with electric devices powered by alternating current. The most common are arm-legs and arm-arm electrocutions.
Immediately after an electrocution, i.e. after interrupting the flow of current, a person may experience electric shock, which manifests itself in terror, paleness, shivering of body or limbs, excessive perspiration, state of apathy or euphoria. The accident may also lead to a brain oedema and loss of consciousness, combined with blood circulation arrest and no breathing. These effects can emerge also after some time - from several minutes to several months.

In the Warsaw School of Economics person who are not professionally responsible for operating the electric network are not allowed to make any repairs of devices, sockets, plugs, wires, equipment etc. It is the basic safety rule in case of the electric current installation with alternating voltage of 230/400 V. This rule is to be applied in every situation and all circumstances.

Do not touch wires hanging loosely or wires laying on the floor in disorder. Do not try to investigate what they are for and where they are powered from. It is not our role. Curiosity is absolutely ill-advised and unnecessary in this case. Their removal or installation of such wires is a duty of technical service staff. Our action should be limited to reporting to the administrator of the given facility the noticed flaws in the electric installations. If we want to clean a device powered by electric current, we must always disconnect it from the power supply by plugging the electric cord out of the power socket. Mere switching off is not enough, especially if we want to clean the device with a wet cloth.

We also must not touch electric devices or installations with wet hands. Water and electric current are a good couple, but unfortunately with negative effects for us.

Water, humidity or even slightly wet hands or shoes cause rapid decrease the resistance of our skin, which may result in faster and easier penetration of electric current in our body. What in "dry" conditions may be only a possible threat, where water is present becomes a real danger.

**AS RESEARCH AND STATISTICAL FIGURES IN POLAND ARE ALARMING: OVER 80% OF LETHAL ACCIDENTS INVOLVING ELECTRIC CURRENT WITH ALTERNATING VOLTAGE OF 230/400 V WERE CAUSED BY THE VICTIMS THEMSELVES.**

**Risk of Fire or Explosion**

Fire as an undesired phenomenon may appear everywhere where there are favourable conditions for its breaking out and when it is initiated by human actions/(deliberate fire-raising or carelessness, sloppiness, disobeying fire safety rules etc.)/ or without involvement of men/(power failure, short circuit, self-ignition etc.)./

In the Warsaw School of Economics it is difficult to find any technological causes of fires. Education and teaching are not inflammable by themselves. But it is also difficult to exclude anything in this matter, especially in the modern world which surrounds us. And though the didactic process in the halls of the Warsaw School of Economics has not yet been recognized as an action with high fire risk, fire can break out. There may also come to explosions.

In kitchens of the students dormitories natural gas is used as a medium of energy. When it reaches a certain level of concentration, it becomes an explosive. The safety of operating gas ovens depends to a great extent on the users themselves, which should obey relevant to this matter rules of conduct - such as:

- each time after using the kitchen make sure that the valves are closed,
- look to it that the food does not spill on the gas burner,
- do not leave the food which is being cooked without supervision,
Is working with computers harmful? This question has been reappearing in the discussion on work and health protection in our country (and not only here) for over ten years.

At the beginning the excess of electromagnetic radiation emitted by the screen of monitors was emphasised. Protective filters were considered a panacea for this problem. But after the TCO standards specifying the maximum screen radiation have been restricted, the problem was no longer a predominant one, and thanks to a new method of generating picture on the screen (LCD) it has become even less important.

It so happens that provisions concerning work protection elaborate on the issue of working with computers quite extensively.

Although the existing legal regulations refer to workers who work in front of computer screens over 4 hours a day, the minimum requirements of occupational health and safety and ergonomics which should be met on those positions may be very useful for everyone who has contact with computers. We will not describe them in detail or make any extensive analysis here. Instead we will concentrate on the following issues:

What should you know and remember?

Working on a computer for over 4 hours a day be onerous because:

- intensive visual work may cause eye complaints, headache, feeling of tiredness and weariness,
- long periods of immobility may result in back, shoulder and backbone complaints, shallower breath, slower blood circulation, especially in legs,
- bad work organization, fast pace, pressure of deadlines, solitude during work, inadequate software, lack of support in difficult situations may cause stress and lead to tiredness, weariness, frustration and professional burnout.

Some figures can be presented as a confirmation of the dangers listed above.

Among the group of respondents around 80% of computer users report different kinds of health problems. They concern different body parts and are as follows:

- pains in the neck and back - 49,3%
- shoulder pains - 16,4%
- wrist pains - 23,3%
- eyes / sight complaints - 43,8%
- headaches - 31,5%
- discomfort in seating - 45,2%
- numbness of legs - 12,3%

The above examples confirm the opinion that working in front of a computer screen is ranked among onerous works due to considerable strain for the musculoskeletal system and the eyesight. In order to limit the first of the health risks named above, i.e. too much strain for the musculoskeletal system, it is necessary to arrange furniture
During work with computers users may be exposed to different harmful and onerous factors:

**harmful factors**

- Electrostatic field of up to 100 V/m in the radius of 50 cm from the screen, caused by high positive potential of the monitor,
- Electromagnetic radiation induced by currents and voltage of various frequencies, especially low (ELF) and very low (VLF) frequencies,
- Ionizing radiation,
- UV radiation.

The harmful factors listed above are present only in case of monitors equipped with traditional tubes - they are absent in case of liquid crystal displays (LCD) used in laptops and notebooks. The progress in developing technical solutions aiming at limiting those factors has made it possible to virtually eliminate them. Measurements of radiation emitted by monitor screens have shown that the radiation is much lower than the values regarded as safe.

**onerous factors**

- Improper lighting of the workplace,
- Blinking screen,
- Lack of sharpness, blurred colours,
- Forced working position,
- Noise,
- Incorrect arrangement of computer workstations in relation to each other,
- Unsuitable microclimate,
- Unergonomic workplace (desktop, seat),
- Psychological stress.

**Arrangement of workplace elements**

The following aspects should be taken into account while arranging a workplace:

- Number and size of the purchased equipment,
- Type of work (continuous, temporary, entering data, text edition etc.),
- Position of the workplace in relation to the lighting,
  - The screen should be situated crosswise to the windows, ca. 1 m from them,
  - In case of a different position use light screens protecting the screen from direct light,
it is not recommended to place a monitor against the background of a window or on the wall opposite to a window,
- in the summer window blinds should be used in order to limit the light falling on the screen to 500 lx,
- use general (ceiling) lights; if using spot light it is recommended to use special frames reducing glare from the frame and glares falling on the workplace,
- at a workplace with a computer monitor the light intensity should be at least 500 lx,
- position of monitors in relation to each other
- distance between the monitors should not be less than 0.6 m.

SEAT

- The seat should be stable and comfortable for the user and should have the following dimensions: width: 38-42 cm, depth: 40-45 cm,
- backrest width: minimum 36 cm, height: 30 cm,
- seat height regulation: 40-50 cm (from the floor),
- regulation of backrest back-front and up-down,
- the seat should have armrests.

Drawing of a seat

TABLE

- table height should be regulated - the height of a keyboard tray should be 0.6-0.75 m, and of a monitor desk - 0.7-0.95 m,
- under the table there should be free space for legs and possibly also a footrest; there should be no other things there,
- table top surface should be of a light colour, matt and have rounded edges. The drawing on the right presents the main dimensions of the table and its height regulation ranges.
**MONITOR**

- Images on the screen should be stable; the screen should not blink or display any other kinds of interferences,
- Characters on the screen should be clearly visible; the size of the characters must suit the writing person (font height should not be less than 3.5 mm); spaces between characters and lines of the text should allow their clear distinction,
- There should be no reflections on the screen,
- The distance between screen and the user's eyes should be 40-75 cm,
- The minimum distance between neighbouring monitors should be 0.6 m,
- It should be possible to turn and bend the monitor easily so as to adjust it to the user's needs,
- The upper edge of a monitor should be on a level with the user's eyes (in a sitting position) or a little below it,
- The distance between the back of the monitor and the person working nearby should be more than 80 cm,

**KEYBOARD**

- The keyboard should be placed on elbow level,
- If the keyboard is placed higher (e.g., on a top of a desk) wrist rests should be placed in front of it,
- The space in front of a keyboard should be big enough to ensure support for hands and forearms of the working person,
- The keyboard design should take into account the requirements of ergonomics (readability and contrast of signs on the keys) and the keyboard should not reflect light.
BASIC RULES OF WORKING WITH A COMPUTER

- air the room with a computer each day,
- in computer rooms it is highly inadvisable to smoke tobacco,
- after 1-2 hours of work (depending on the work intensity) it is recommended to take a 5-10 minute break, and it is advisable to do some relaxing exercises during that break,
- when needed, clean the screen with electrostatic liquid (not less than once a week),
- the angle of the knee joint should be at least 90°, which means that feet cannot be located under the seat,

Position during work with a computer should be as relaxed and natural as possible; feet resting flat on the floor, back straight and resting against the backrest, forearms placed on the armrests, wrists resting on the top of the desk, head kept straight.

ATTENTION! PREGNANT WOMEN MAY WORK IN FRONT OF COMPUTER SCREENS UP TO 4 HOURS A DAY.

Computers are currently common work tools. It is difficult to imagine many actions without help of this machine. Contrary to the opinion that working in front of a computer should be counted among the least straining types of work, sitting in the same position for several hours a day causes health risk for the user. It requires constant self-control and moreover it is desirable to develop a habit of putting into practice at least some of the rules of ergonomics listed above.

Fire!

A computer set is powered by electric energy with the voltage of 230V and as every appliance of this kind it may catch fire. The most appropriate fire extinguishers for putting out computer fire are CO2 fire extinguishers, especially those intended for extinguishing fires of electronic and electric appliances. These extinguishers upkeep the gaseous phase of carbon dioxide, which prevents the so called thermal shock, occurring in case of traditional CO2 extinguishers (temperature of CO2 at the nozzle is -78°C). Therefore when using CO2 extinguishers you should act with great caution in order not to frostbite your skin, which is completely not resistant to such low temperatures, just as to temperatures over 45°C.

MICROCLIMATE

Just like the lighting, thermal environment in the rooms where people stay, commonly referred to as the "microclimate", is an important factor which influences one's health and disposition, ability to work (work efficiency) as well as work safety and hygiene.

Man, being a warm-blooded creature, finds it hard to adjust to changes of the temperature of its surroundings, especially sudden ones.

Although microclimate is a quite broad notion and it is heavily determined by climate conditions in places of work, education and living, this domain is immediately perceived and judged (of course subjectively) by almost every member of human community.

We do not usually appreciate the influence of microclimate as long as it allows us to function in a normal way. Generally speaking, we start to become aware of it when it is not too cold or too hot.
However, it is a far-reaching oversimplification. The working environment climate involves a number of parameters, four of which are of the greatest importance:

- air temperature,
- its humidity,
- pace of its moving (draught, wind),
- pressure.

Only a proper combination of these four air properties constitutes the proper environment, contributes to our good disposition and enables us to live, work, learn etc. efficiently.

As it has already been mentioned, environment microclimate conditions are judged by each individual in a highly subjective manner. It is determined by age, sex, metabolism level, type of work, kind of clothing and several other factors.

One may risk a statement that each of us has one's own microclimate, which ensures the most proper conditions for living, working and resting.

What happens, however, in a situation where individuals within a group have extremely divergent ideas about a proper microclimate that should be created in a room in which they are spending time (it being either compulsory or voluntary)?

In this situation compromise is always troublesome and difficult to achieve. The legislators have also encountered this dilemma and thus have addressed only slightly the issue of microclimate (to be precise only air temperature) in the valid legal regulations pertaining to conditions of work, studying, living etc.

**As far as work is concerned, there are three minimal thresholds:**

- When work is carried out in temperature below 10°C it is said to be conducted in **cold microclimate**. Work in this environment may be performed for a limited time, employees should wear proper protective clothing and have the possibility of getting warm in a separate room with temperature not lower than 16°C, and receive warm food and drinks. When work involves physical effort the temperature must be over 14°C. When work involves no physical effort and in case of the so-called office work the temperature must be over 18°C.
- Rector of the university is entitled to cancel classes temporarily if the temperature in lecture rooms falls below 18°C.

As the above examples show, these are threshold temperatures. To speak about thermal comfort the temperature must be between 21-23°C and such parameters are specified in PN norms.

In reality a complex measurement of microclimate in rooms, especially those designed for work, is more complicated than just simple temperature measurement. All possible conditions are taken into consideration. Evaluation of thermal environment (microclimate) is based on norms of ISO (International Organization for Standardization), in which hot microclimate is determined according to the WBGT indicator, moderate microclimate according to the PMV and PDD indicators, and cold microclimate according to the WCI and IREQ indicators. The labels will not be explained here. More and more rooms are air-conditioned.

So far the level of air-conditioning in places of work does not seem to be perceptible, especially in older buildings. Nevertheless, new buildings are wholly air-conditioned, just like e.g. building C of the Warsaw School of Economics.

We have to realise, however, that air-conditioning is not a cure-all which eliminates the problem of improper microclimate. It has its side effects and not everyone tolerates air conditioning.

**But we can take care of preserving the ability to function (work) in unfavourable microclimate conditions ourselves (of course to a certain extent) by e.g:**

• wearing clothing suited for the time of the year,
• not blocking radiators by objects limiting heat radiation in winter,
• avoiding unjustified airing of rooms in winter etc.,
• avoiding excessive, not always justified use of heat radiating devices, especially in small spaces (computers in summer time).

**LIGHTING**

The lighting is one of the most important factors in shaping living and working environment of modern people. Its impact on work efficiency, but also health and our mental and physical disposition is undeniable.

Not all external stimuli of a human body are exposed to influence on our organisms in the same way. Most sensations and information are absorbed through the sense of sight (85-90%), the remaining senses have a limited informative function (hearing - about 7%, smell - about 3.5%, touch - only about 1.5% of the total received stimuli).

The vision process works in the following way: light reflected from an object falls on the retina and stimulates the terminations of the optic nerve connected with it, which in turn transfers the stimuli to the specific locations in the brain responsible for seeing. Light - optical or visible radiation - constitutes as a part of electromagnetic radiation with the wavelength between 380 and 780 nm.

The basic rule which should be followed when working or studying is to use natural light. *Daylight has all positive characteristics and parameters necessary not only for our eyes but also for the entire human body.* In case of using natural light the direction at which it falls is particularly important. Light should not dazzle (blind), however it should also not be blocked e.g. by parts of the body (it should fall from the left side e.g. when writing etc.).

Of course, in our geographic zone the amount of daylight depends on the season of the year, which sometimes makes it necessary to supplement the available natural light with artificial lighting. This is where problems with choosing the most appropriate source of light begin. Although most people have no difficulty adjusting to day light, we usually have some preferences as far as artificial light is concerned, which is also connected with the fact that sources of this type of light are simply imperfect.

Traditional *glowing lighting (common light bulb)*, most easily tolerated by majority of people, is being gradually supplanted by new sources of light for economic reasons (only 10% of the energy generated by a bulb is light energy, the rest being heat energy, which is mostly useless).

At present discharging light sources, *commonly called fluorescent lamps, are the most popular (compact discharging tubes included).* This technology is being constantly improved, and even though it does not resemble cold, pulsing light with a dark mercury edging at tube ends anymore, it would be difficult to claim that this source of light is universally accepted. Users often complain about the negative impact of fluorescent lamps on their wellbeing.

Another modern source of artificial light are different types of halogen bulbs. They are characterized by high light stream intensity, but they also have some disadvantages due to which it is hard to consider them successors of a traditional light bulb, which despite its age (over 100 years) gives out very pleasant warm light and is still in use, probably out of pure habit, and is even improved by manufacturers.

In order to overcome these obstacles lighting technology manufacturers apply sources of light of various types within one room, which allows to achieve a compromise in terms of requirements of sanitary norms (concerning light intensity), users' sensations, and - above all - the influence of light on human health.

The parameters that proper artificial lighting should meet (in terms of influence on human health) pertain to:
intensity and equal distribution of light in the working area,
limiting the effect of unpleasant blinding,
factor of rendering colours by the source of light,
pulsation and stroboscope effects caused by sources of light.

In practice the light intensity parameter in work places is most often used. The latest sanitary norm (PN-EN 12464) provides that in places where people are constantly present the operational light intensity should not fall below 200 lx (lux - light intensity unit in the SI system). The same norm specifies minimal intensity at the level of 500 lx in studying rooms (lecture rooms, halls etc.) and for work in front of computer screens (at least in the so-called task area).

The impact of insufficient lighting is unquestionable. It may cause:

- higher number of mistakes,
- considerable decrease in work efficiency,
- accident hazard.

Long work by insufficient lighting may impair sight and decrease its sharpness, which in turn causes in short-sightedness. In terms of daily activity it may worsen the one's disposition and lead to premature general fatigue of human organism.

ORDER AND CLEANLINESS IN THE SCHOOL - EFFECT ON PHYSICAL AND MENTAL STATE AND SAFETY OF PERSONS WORKING AND STUDYING IN THE WARSAW SCHOOL OF ECONOMICS

If we assume that a contemporary man from our civilization values the hygiene of the environment in which he lives and works, as well as his personal hygiene, we could expect that the infrastructure created in order to achieve and maintain it will be available in those places where it is most needed. Nowadays it is difficult to imagine a newly built apartment without sanitary equipment. The relevant requirements are regulated by provisions of the construction law. The same applies to various work places, public utility facilities etc.

In the Warsaw School of Economics there are generally accessible necessary hygienic and sanitary facilities, thanks to which each user of the buildings can satisfy his or her needs in this respects.

Considerable financial resources are allocated for maintaining in these facilities the required level of standard and observing rules of everyday order and cleanliness.

Looking back we can observe many positive signs but there is still much to do to achieve full satisfaction.

The common saying that a clean place is not where many people do the cleaning, but where few people make a mess, is still relevant - and that is simply it.

It is equally important to leave your outwear in the cloakroom (each didactic facility of the Warsaw School of Economics has a cloakroom with staff). In the autumn and winter another pretentious habit can be observed among students, that is taking their outwear with them to lecture halls. It is highly unhygienic and it considerably decreases the comfort of studying.

To sum up, every man is the architect of his own fortune and irrespective of the way we look at the problem the technical and hygienic state of rooms and devices as well as our favourable disposition and our feeling of sanitary safety depends on the way we use them.

Although the issues presented here are very delicate, we should talk about them, stimulate proper behaviours, stigmatize
common untidiness, and even vandalism - briefly speaking to call a spade a spade.

Fire is highly unpredictable, therefore prevention, limitation and removal of its effects is a complex matter. Fire poses a threat to human health or life, causes material losses, and - as in the case of objects of cultural heritage - irreparable loses.

In Poland the standards that a building or any other construction designed for housing people should comply with in order to be considered safe as regards fire hazard are set forth in legal regulations. (Act of 24th August 1991 on Fire Protection, Journal of Laws No. 147, item 1229 of 2002, as amended, and Ordinance of the Ministry of Interior and Administration 21st April 2006 on Fire Protection of Buildings, Other Building Constructions and Premises, Journal of Laws No. 80, item 563).

WHAT ARE THE POTENTIAL SOURCES OF FIRE AND WAYS OF ITS SPREADING?

- Appliances and fittings of the electrical installation placed within an insufficient distance from flammable materials, e.g. waste paper, books, loose scraps of paper etc.,
- Breakdown of appliances and fittings of electrical, technical and computer wiring,
- Setting fire, especially dangerous in storage and technical rooms, but also in other, seemingly safer places,
- Setting fire during potentially fire hazardous works,
- Using flammable materials in a way not complying with manufacturer's specifications,
- Using heating devices (heaters, kettles) without proper safety measures and required permission,
- Short circuit resulting from overload of electrical installations, old insulation, wear and tear of sockets, switches and wiring framing as well as bulb cracks,
- Makeshift repairs of wiring system fittings and connections to switchboards,
- Improper storage of commodities and application of (dangerous) flammable liquids not taking into account safety requirements specified by the manufacturer or the distributor,
- Leaving electricity receivers on after work,
- Arson.

WHAT ARE THE FIRE PREVENTION RULES?

- imposing a ban on storage of flammable materials closer than 0.5 m from:
  - appliances and installations whose external surfaces may reach temperature of over 100°C,
  - cable lines of voltage higher than 1kV, grounding wires, active electricity switchgears, power cables and plugging sockets of voltage higher than 400V,
- not allowing teletechnical and computer installations to overheat,
- prohibiting using open fire in storage and technical rooms as well as assuring that smoking ban is obeyed,
- carrying out fire hazardous works according to guidelines included in the manual,
- prohibiting application of flammable chemical substances and flammable pastes against the manufacturer's guidelines,
- prohibiting using heaters and kettles without a written permission,
- obliging the electrical wiring maintenance technician to monitor the technical state of the electrical installations fittings,
- prohibiting any repairs by unauthorised personnel,
- storing and using flammable liquids and dangerous materials according to the manufacturer's guidelines,
- obliging users to turn off electricity receivers after work.
Inside a building, fire spreads through solid flammable materials, mostly paper, wood and plastic. In the first stage the effect of fire is smoke with a characteristic smell of burnt paper or plastic. After several minutes following a fire outbreak in a room, higher temperature is perceptible in the corridor outside. In the second stage, when fire covers the entire room, it begins to spread through the windows, doors, partition walls and ventilating ducts. If doors are open or burnt down, hot gases fill the corridor and are spread by way of convection through stairways and halls to higher floors. Spreading of hot gases results in setting fire to objects located further from its source e.g. corridor equipment.

Temperature in regions directly impacted by fire may reach 600°C.

In more distant places the temperature depends on the current of air (it's higher near the ceilings). In temperature of over 200 oC even without flames wooden and wood-like materials catch fire and plastic melts releasing flammable products of thermal decomposition into the air.

Fire can be located when it reaches barriers used in construction industry. Fire exits (corridors) are separated from rooms by walls, which prevents spreading of fire for at least 30 minutes. Destruction of ceilings and load-bearing walls takes longer than the estimated fire span. New buildings are raised in compliance with these guidelines e.g. new research and teaching hall - building C.

ATTENTION:
Smoke is highly likely to fill the building within a short time as a result of vertical and horizontal links between separate floors. Dynamic spreading of smoke inside a building is a threat to human health and life.

GUIDELINES EVACUATION OF PEOPLE AND PROPERTY

Fire safety consists partly in ensuring proper means of evacuation from any place in which people remain, so that there is a possibility to leave the threatened or covered by fire zone quickly and safely. They should be adjusted to the number and physical ability of the people inside a building as well as its functions, structure, dimensions and technical fire preventive measures applied, including:

- a proper number and width of emergency exits;
- proper length, width and height of escape routes;
- fire resistant casing and partition walls of escape routes and rooms;
- preventing escape routes specified in technical and construction regulations from filling with smoke;
- providing emergency (safety and evacuation) lighting where it is essential for people to evacuate;
- ensuring that there is a possibility of broadcasting warning signals and voice communications through sound warning system (in buildings where it is required under legal regulations).

If there is a threat of fire resulting in the necessity to evacuate people and property from the building, the relevant decision is made by the School Rector or a deputy of the Rector responsible for the safety of people and property e.g. a security guard.

AFTER A DECISION TO EVACUATE PEOPLE AND PROPERTY HAS BEEN TAKEN IT IS NECESSARY TO:

1. Immediately inform all students and employees remaining inside the evacuation area about the threat, its nature and the need of evacuation. Internal communication networks may be used for that purpose. It has been established that the evacuation signal shall have the form of voice announcements made by building security guards and administration employees e.g. through a loudspeaker (in building G - manual alarm siren).
2. Building 'C' and halls of residence 'Sabinki' and 'Hermes' are equipped with the Sound Warning System transmitting the announcements automatically.

3. The network and telephones should also be used to transmit the announcement. Administration employees, primarily the department executives, should be engaged in the action.

4. The evacuation co-ordinator appoints persons responsible for evacuation of groups of students and moreover if necessary decides on evacuation of equipment and property, indicating the ways, order and type of items to be evacuated.

5. People staying in rooms where fire started or remaining on the way of spreading fire or in the rooms which can be sealed off by fire and smoke should be evacuated first. People who for various reasons have limited mobility should be evacuated first, while those able to walk without help should close the stream of people.

6. During evacuation from the rooms, the stream of people should be guided to horizontal escape routes (corridors) and subsequently, according to the directions shown on the evacuation signs, to stairways and exits leading outside the zones in which fire may break out or outside the building. The person in charge of the evacuation decides where people who have left the zones threatened with fire should concentrate.

7. People with limited ability to move should be evacuated on pushchairs or carried out.

8. In the event that escape routes are blocked, the evacuation co-ordinator should be immediately informed about this fact by any means available, e.g. by phone, directly or through a person remaining outside the isolated zone.

9. If escape routes are heavily filled with smoke, one should walk in a bent position, keeping one's head as low as possible, as there is less smoke in rooms and corridors near the floor. **If possible, mouth and nose should be covered with a wet tissue, which facilitates breathing.** When crossing heavily smoked stretches of escape routes, one should **walk along the walls** in order not to lose direction.

10. Property **must not be evacuated using means and power essential in evacuating and rescuing people.**

11. When the evacuation has been completed, i.e. when a building or a threatened zone has been emptied, the co-ordinator of a particular group is obliged to make sure that all people have left all the rooms.

12. If the State Fire Brigades arrive during the evacuation, the evacuation co-ordinator is obliged to make a brief report on the actions taken and respect the orders of the officer in-chief of the tactical fire brigade.

**WHAT HAND FIRE EXTINGUISHING EQUIPMENT IS AVAILABLE AT THE SCHOOL?**

**FIRE EXTINGUISHERS**

The hand extinguishing equipment available on the premises of the Warsaw School of Economics has been selected and
At present all buildings of the Warsaw School of Economics are equipped mostly with 4 kg extinguishers. The technical and usage specification of liquid, snow and dry powder extinguishers (filled with phosphate powder) along with the basic parameters of particular sizes of extinguishers are set forth in the attachment.

### Types of extinguishers (3)

**Dry powder extinguishers. Dry powder aggregates**

**Advantages:**
- non-toxicity, neutrality
- high fire penetration capacity, cooling and forming an insulation layer protecting from fire
- may be used for extinguishing fire of electric devices
- phosphate powders are more resistant to humidity, shocks and extinguish type A fires
- effective extinguishes gas fires

**Application:**
- phosphate powders extinguish type A, B, C fires
- carbonate powders extinguish type B, C fires
- electric device with voltage up to 1 kV
- type D fires (powder D)

**Warning:**
Not proper for extinguishing fires of:
- moving parts of machines
- computers and electronic equipment

**Operation:**
- pull out the safety pin
- press the lever
- control the amount of released powder with the valve

**Attention:**
- When extinguishing fire of electrical installation keep a distance of at least 1 m,
- Proper for extinguishing fire of appliances and electrical installation with voltage up to 1000 V.
Types of extinguishers (1)

Foam extinguishers. Foam aggregates

Advantages:
- ensures fast cooling through condensation of the substance upon contact with fire
- forms a layer preventing emission of flammable liquid steams and renewed fire-setting

Application:
- type A, B fires

Warning:
Not proper for extinguishing fire of:
- substances reacting with water e.g. sodium, potassium, carabolic acid, lime
- items burning in form of glow in high temperatures
- live electric wiring and devices

Operation:
- pull the safety pin
- press the lever
- hold the valve in the direction of fire while pressing the lever

Attention:
Extinguisher must not be used for extinguishing fire of live electric wiring and devices.

Internal hydrant

Though internal hydrants are not perceived as a part of hand extinguishing equipment, it serves in putting out fire in its initial stage. It is a cased set composed of a hydrant valve, one or two stretches of fire-hose and a nozzle pipe. Hydrants may be used for extinguishing fires in early stages if water can be used as the extinguishing substance (type A fires).

Attention: It is forbidden to extinguish fires of live electric devices using water.
Hydrants should be operated in the following manner: open the case, unroll the hose, open the hydrant valve and direct
the stream of water at burning materials, watering the burning surface from the edge to the middle. Hydrant should be
operated by two people.

**Hydrant 25 with a semi-flexible hose**

**Hydrant 52 with a flat-folded hose**

It is an example of a sign directing users of a building to the nearest emergency exit which should be followed upon
hearing an announcement of a threat.

The amount of the displayed labels corresponds to the minimal amount necessary for proper signing of a given building. If
a need occurs to extend the scope and kind of labelling, it should be conducted in accordance with the Polish norms:

**PN-92/N-01256-01 Safety Signs. Fire Protection.**
<table>
<thead>
<tr>
<th>Item</th>
<th>Safety Sign</th>
<th>Safety Sign Designation (Name)</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="image" alt="Manual Start" /></td>
<td>Manual Start</td>
<td>Used for indicating the fire button or fire equipment manual control.</td>
</tr>
<tr>
<td>2</td>
<td><img src="image" alt="Alarm Sound Signalling Device" /></td>
<td>Alarm Sound Signalling Device</td>
<td>May be used separately or together with sign no. 1.</td>
</tr>
<tr>
<td>3</td>
<td><img src="image" alt="Emergency Telephone" /></td>
<td>Emergency Telephone</td>
<td>Sign indicating the location of an alarm telephone which may be used in case of fire hazard.</td>
</tr>
<tr>
<td>10</td>
<td><img src="image" alt="Fire Equipment Set" /></td>
<td>Fire Equipment Set</td>
<td>Sign used for indicating a set of individual signals indicating extinguishing equipment.</td>
</tr>
<tr>
<td>11</td>
<td><img src="image" alt="Extinguisher" /></td>
<td>Extinguisher</td>
<td>Sign used for labelling extinguishers.</td>
</tr>
<tr>
<td>12</td>
<td><img src="image" alt="Internal Hydrant" /></td>
<td>Internal Hydrant</td>
<td>Sign placed on the door of a hydrant case.</td>
</tr>
<tr>
<td>13</td>
<td><img src="image" alt="Fire Ladder" /></td>
<td>Fire Ladder</td>
<td>Sign used to indicate a ladder permanently fixed to an object.</td>
</tr>
<tr>
<td>14</td>
<td><img src="image" alt="Fire Hazard – Highly Flammable Materials" /></td>
<td>Fire Hazard – Highly Flammable Materials</td>
<td>Sign used to label flammable materials.</td>
</tr>
<tr>
<td>15</td>
<td><img src="image" alt="Fire Hazard – Oxidising Materials" /></td>
<td>Fire Hazard – Oxidising Materials</td>
<td>Sign used for indicating a possible presence of explosive air, flammable gases and explosives.</td>
</tr>
<tr>
<td>16</td>
<td><img src="image" alt="Explosion Hazard – Explosives" /></td>
<td>Explosion Hazard – Explosives</td>
<td>Sign used in all cases where extinguishing fire with water is prohibited.</td>
</tr>
<tr>
<td>17</td>
<td><img src="image" alt="No Water Extinguishing" /></td>
<td>No Water Extinguishing</td>
<td>Sign used in places where smoking may lead to fire hazard.</td>
</tr>
<tr>
<td>18</td>
<td><img src="image" alt="No Smoking" /></td>
<td>No Smoking</td>
<td>Sign used in places where smoking or open fire may cause a threat of fire or explosion.</td>
</tr>
<tr>
<td>19</td>
<td><img src="image" alt="No Open Fire – No Smoking" /></td>
<td>No Open Fire – No Smoking</td>
<td>Sign used in places where smoking or open fire may cause a threat of fire or explosion.</td>
</tr>
<tr>
<td>21</td>
<td><img src="image" alt="Direction Towards Fire Equipment or Alarm Device" /></td>
<td>Direction Towards Fire Equipment or Alarm Device</td>
<td>Sign to be used only jointly with signs no. 1-3 and 10-13 to indicate the direction towards the extinguishing equipment or an alarm device.</td>
</tr>
<tr>
<td>22</td>
<td><img src="image" alt="No Blocking" /></td>
<td>No Blocking</td>
<td>Sign used when an obstacle (on an escape route) could pose a particular threat.</td>
</tr>
</tbody>
</table>
### Evacuation Sign

<table>
<thead>
<tr>
<th>Item</th>
<th>Evacuation Sign</th>
<th>Sign Designation (Name)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="image" alt="Escape Route Direction" /></td>
<td>Escape Route Direction</td>
<td>Sign showing direction to the exit which can be used in case of emergency. Short arrows – to be used with other signs. Long arrow – to be used alone.</td>
</tr>
<tr>
<td>2</td>
<td><img src="image" alt="Emergency Exit" /></td>
<td>Emergency Exit</td>
<td>Sign used for labelling exits which may be used in case of emergency.</td>
</tr>
<tr>
<td>3</td>
<td><img src="image" alt="Evacuation Door" /></td>
<td>Evacuation Door</td>
<td>Sign placed above wing doors which constitute emergency exits (right- or left-wing door).</td>
</tr>
<tr>
<td>4</td>
<td><img src="image" alt="Move to open" /></td>
<td>Move to open</td>
<td>Sign placed together with sign no. 3 on the sliding doors of emergency exits, if allowed.</td>
</tr>
<tr>
<td>5</td>
<td><img src="image" alt="Direction to Escape Route Exit" /></td>
<td>Direction to Escape Route Exit</td>
<td>Sign showing the direction of the escape route towards exit; either to the right or to the left.</td>
</tr>
<tr>
<td>6</td>
<td><img src="image" alt="Direction to Escape Route Exit Downstairs" /></td>
<td>Direction to Escape Route Exit Downstairs</td>
<td>Sign showing the direction of the escape route downstairs to the left or to the right.</td>
</tr>
<tr>
<td>7</td>
<td><img src="image" alt="Direction to Escape Route Exit Upstairs" /></td>
<td>Direction to Escape Route Exit Upstairs</td>
<td>Sign showing the direction of the escape route upstairs to the left or to the right.</td>
</tr>
<tr>
<td>8</td>
<td><img src="image" alt="Push to open" /></td>
<td>Push to open</td>
<td>Sign placed on doors to indicate the direction in which they open.</td>
</tr>
<tr>
<td>9</td>
<td><img src="image" alt="Pull to open" /></td>
<td>Pull to open</td>
<td>Sign placed on doors to indicate the direction in which they open.</td>
</tr>
</tbody>
</table>
| 10   | ![Break to access](image) | Break to access | Sign may be used: 
a) in places where breaking the glass is necessary to reach a key or gain access to an opening system  
b) when breaking the partition is necessary to allow exit. |

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**PN-92/N-01256/02. EVACUATION SIGNS**

It is allowed to place evacuation safety signs on the frames of evacuation lighting. This is an alternative solution to displaying graphic symbols on a photoluminescent background.

Examples of evacuation and fire protection signs are shown over in the tables.
1. Anyone who has noticed fire or found out about fire must stay calm, prevent panic and immediately alarm:

- People remaining in the vicinity of fire, exposed to its effects.
- State Fire Brigades in Warsaw - TEL. 998 OR 112
- Security Guards - Tel. 564 92 00
- Chancellor - Tel. 564 96 00

2. The fire brigade should be alarmed by means of the nearest public phone or an internal phone connected to the city network.

3. Once connected with the fire brigade, one should clearly provide the following information:

- fire location - exact address of the place and its name,
- what is on fire - e.g. warehouse, office room, cloakroom, lecture hall, social backrooms etc.
- whether there is any threat to human life and whether there are any flammable or explosive materials etc. in the area or in immediate vicinity of fire,
- number of the phone used and one's name and surname.

ATTENTION:
AFTER OBTAINING CONFIRMATION THAT THE OPERATOR ON DUTY HAS ACCEPTED THE REPORT THE PERSON REPORTING FIRE SHOULD DISCONNECT AND WAIT BY THE PHONE FOR POSSIBLE VERIFICATION WHETHER THE ALARM IS NOT FALSE

4. Should the need arise (in case of an accident or breakdown), call:

<table>
<thead>
<tr>
<th>Service</th>
<th>Tel.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulance</td>
<td>999</td>
</tr>
<tr>
<td>Police</td>
<td>997</td>
</tr>
<tr>
<td>Gas Emergency Services</td>
<td>992</td>
</tr>
<tr>
<td>Energy Emergency Services</td>
<td>991</td>
</tr>
<tr>
<td>Security</td>
<td>9200</td>
</tr>
<tr>
<td>Electrician</td>
<td>9721</td>
</tr>
<tr>
<td>Plumber</td>
<td>9661</td>
</tr>
<tr>
<td>Occupational Health and Safety</td>
<td>9619</td>
</tr>
<tr>
<td>and Fire Security Inspectorate</td>
<td></td>
</tr>
</tbody>
</table>
HOW SHOULD THE EXTINGUISHING AND RESCUE ACTION BE CONDUCTED?

1. Along with informing the fire brigade the fire extinguishing and rescue action should be initiated by:

   - evacuating people and property
   - extinguishing fire /by means of hand extinguishing equipment available at hand/.

2. By the time the fire brigade arrives, the person responsible for managing the action is the Chancellor, persons acting as deputies of the Chancellor or building security guards.

The person in charge of the fire extinguishing and rescue action indicates tasks and forms of actions corresponding to the current needs and the development of the fire situation.

3. Each person taking part in the fire extinguishing and rescue action should:

   - first of all rescue people by evacuating them from the threatened area,
   - ensure that the technical services cut off electricity in the threatened area (it is forbidden to extinguish fire of live electric devices and wiring using water)
   - remove from the fire area and its immediate vicinity all flammable, explosive or toxic materials and valuable machines, appliances and important documents, data carriers etc.
   - turn off general ventilation and close any doors separating the room on fire from neighbouring rooms.
<table>
<thead>
<tr>
<th>Emergency Telephone Number</th>
<th>112</th>
</tr>
</thead>
<tbody>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>Ambulance</td>
<td>999</td>
</tr>
<tr>
<td>Police</td>
<td>997</td>
</tr>
<tr>
<td>Fire Brigade</td>
<td>998</td>
</tr>
<tr>
<td>Fire Fighting and Rescue Unit No. 3 of the State Fire Brigades</td>
<td>825 72 51</td>
</tr>
<tr>
<td>1 Polna St.</td>
<td></td>
</tr>
<tr>
<td>Energy Emergency Services</td>
<td>991</td>
</tr>
<tr>
<td>Gas Emergency Services</td>
<td>992</td>
</tr>
<tr>
<td>Water Supply Emergency Services</td>
<td>994</td>
</tr>
</tbody>
</table>

**WHAT IS THE PROCEDURE FOR EVACUATING PEOPLE?**

On a daily basis and while carrying out routine tasks we do not normally think about the ways in which we could leave the building quickly and safely in case of a real threat. Most people enter and exit the building through one particular entrance or door and use the same stairway all the time. They do not know and thus do not take into consideration using alternative ways and emergency exits.

In case of danger people inside a building should use every escape route available in order to get out of the building as fast as possible. When a real threat occurs, familiarity with evacuation procedures and alternative escape routes exceeds chances of successful evacuation.

It has been decided that the alarm signal will be a verbal announcement broadcasted over a loudspeaker:
Upon hearing this announcement one should immediately leave the building (in building G - manual alarm siren).

Building "C" and halls of residence 'Sabinki' and 'Hermes' are equipped with Sound Warning System (DSO) transmitting warnings about fire alarm and the necessity to evacuate people. The signal is heard in all rooms in which people might be present.

The announcement should be repeated until everybody has left the building or as long as conditions allow it. Information about evacuation should be supported by internal telephones network as well as administration and security employees.

The decision about evacuation is made by:

- the Rector, the Rector's deputy or person in charge of safety at a given time, security guards.

Alarm is announced by security guards or appointed employees of the School.

Having located the source of threat, the above mentioned persons should start extinguishing the fire with the help of hand equipment and inform the Fire Brigade.

Until fire brigade units arrive, fire extinguishing and rescue action is managed by:

- the Rector, the deputy of Rector or the security guards.
- the security should always inform the administration about an incident.

**EVACUATION STAGE ONE - UPON HEARING AN ALARM SIGNAL**

The moment an alarm is raised, the employees of the School should immediately open the doors of the rooms leading to the corridor and entrance doors to the building, and help evacuate students "as they are" by guiding them to the nearest exit and to the spot of Evacuation Stage I. It should be stated clearly that all evacuated persons should go towards emergency exits and to the street. This information should be given repeatedly, if possible.

If an accident takes place in a lecture hall, the executive or the supervisor of the group should order the participants to exit the building "as they are" leaving all items /clothes, bags, jackets etc./ behind and inform them about the emergency
exit they should use. Students should be guided to particular exits and informed about the location of the spot of EVACUATION STAGE I - e.g. Rakowiecka St. (for every school building a different evacuation spot is set). Time of leaving a threatened building is crucial in this case.

**EVACUATION STAGE I SPOT**

It is decided that the Evacuation Stage I spot is - **E.G. GROUNDS AT THE REAR OF BUILDING "G"**

**EVACUATION STAGE TWO**

**ON THE EVACUATION STAGE II GATHERING SPOT GROUP SUPERVISORS** are obliged to check the number of students. Any missing persons should be reported to the fire fighters. Having checked the attendance of students, the supervisor of the group should check their condition, paying particular attention to dizziness, vomiting, cough, headache, short fainting, fractures, bruises etc. All injured persons should be treated as victims of the accident and receive hospital aid. It is forbidden to let students go home without checking of the attendance and their health condition.

**EVACUATION STAGE THREE PROPERTY EVACUATION AND SECURING**

If the conditions, means and safety allow it, persons in charge of the fire extinguishing and rescue action decide about the possibility of evacuating property. The order and type of evacuated items is set by the directors.

**FINAL REMARKS**

The above material is an excerpt from the Fire Safety Guidelines. Every building of the Warsaw School of Economics has its own guidelines informing its users in detail about every aspect of fire hazard safety. All persons employed and constant residents (tenants) in a given building are obliged to familiarise themselves with the content of the guidelines and confirm it with their signature, and - most importantly - apply the instructions on a daily basis.

**FINAL REMARKS (SUMMARY)**

As intended by the organizers of the training, the issues presented in this document do not in any way fully cover the problem of occupational health and safety.

It is only an introduction to very extensive issues, which a professionally active member of the society in the modern world learns practically during the whole period of employment, depending on the type of work process in which he or she participates.

It is obvious that a worker in a factory is subject to completely different types of occupational threats than a bank employee or an academic teacher. Whose work is safer? The answer seems easy, however it might not necessarily be unambiguous.

In order to compare the level of work safety pursuant to the Polish legal regulations on work protection for at least ten years now every employer has been obliged to carry out an evaluation of occupational risks to which his employees are exposed from the perspective of their respective work positions. The evaluation consists in preparing a list of threats as regards each position and each person working on this position. The evaluation of the risk level may be conducted in a simplified or in a more advanced way taking into consideration many parameters specifying in detail the probability of occurrence of a given event. An undisputable benefit for both parties to an employment contract is the information on occupational risks which each employee obtains and, hopefully, comprehends.

According to the general rule of assessment of the occupational risk connected with a given work position it should be
first of all determined whether the risk is small, medium or high. Should the risk turn out to be high, the organizer of the
work process is automatically obliged to change the existing technical and organizational solutions, and, in consequence,
to decrease the risk level to the accepted level.

It is undisputable that the issues of safety are becoming a part of our world and that they find their reflection in almost all
areas of life, not only related to professional work.

Apart from all legal, organizational and technical solutions, we should remember that we ourselves play an important part
in ensuring our own safety, as very often in dangerous situations our behaviour, our habits and serious attitude are
decisive. Only then can we count on a bit of luck, and not the other way round, as can be observed in practice.