

## Information sheet for the course Occupational Medicine

<b>University:</b> <i>Alexander Dubček University of Trenčín</i>	
<b>Faculty:</b> <i>Faculty of Health Care</i>	
<b>Course unit code:</b> KLP/e	<b>Course unit title:</b> Occupational Medicine
<b>Type of course unit:</b> <i>compulsory</i>	
<b>Planned types, learning activities and teaching methods:</b> <i>Lecture: 1 hour weekly/13 hours per semester of study; full-time</i>	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> <i>7<sup>th</sup> semester in the 4<sup>th</sup> year (part-time)</i>	
<b>Degree of study:</b> <i>I (bachelor)</i>	
<b>Course prerequisites:</b> none	
<b>Assessment methods:</b> To obtain credits for the course, a student must pass a written examination and design a seminary work (50 points). <ul style="list-style-type: none"> <li>- Seminary work designed for a theme from occupational medicine (20 points).</li> <li>- Written examination (30 points).</li> </ul> To obtain A, a student must score at least 48 points, to obtain B, a student must score at least 44 points, to obtain C, a student must obtain at least 41 points, to obtain D, a student must obtain at least 38 points, and finally to obtain E, a student must obtain at least 35 points.	
<b>Learning outcomes of the course:</b> A student can explain the concepts from occupational medicine, toxicology, and understand the progress in the investigation of suspected occupational disease. A student is able to analyse individual harm damage of employees within the context of professional exposure to various factors of working environment, and occupational disease while working in different sectors.	
<b>Course contents:</b> <ol style="list-style-type: none"> <li>1. <b>Occupational medicine</b> Definition and scope of the field, occupational health damage, progress in investigating suspected occupational disease, chain of occupational medicine workplaces.</li> <li>2. <b>Health damage caused by chemical agents</b> Intoxication – definition and classification, non-specific effects of chemical agents, health damage in employees with long-term exposure to toxic metals, organic solvents, acids, alkali and pesticides. Examples of industries at risk of health damage caused by chemical agents.</li> <li>3. <b>Physical factors as causes of health damage</b> Diseases of long-term excessive unilateral exposure to extremities (DNJZ), occupational vibrational disease, hearing damage caused by excessive noise, human body damage by ionizing radiation, damage to the laser, cold, heat. Examples of branches and professions at risk of harm by physical factors.</li> <li>4. <b>Occupational pulmonary diseases</b> Occupational pulmonary diseases in employees with exposure to mineral dust (SiO<sub>2</sub>, asbestos, welding fumes): silicosis, asbestosis, lung welding. Occupational pulmonary diseases in employees with exposure to mineral dust (dust containing bacteria, fungi, animal hair, feathers, animal excreta). Occupational asthma bronchiale. Examples of branches and professions at health risk of pulmonary diseases.</li> <li>5. <b>Health damage caused by inhalation of gases</b> Health damage caused by inhalation of asphyxiating gases (nitrogen, methane, carbon dioxide), health damage caused by inhalation of gases affecting the transport of oxygen in</li> </ol>	

blood (carbon monoxide, hydrogen cyanide), health damage caused by inhalation of irritating gases (chlorine, sulfur dioxide, nitrogen oxides, ammonia). Examples of branches and professions at health risk of health damage caused by inhalation of gases.

**6. Occupational infectious diseases**

Characterisation of branches and professions with significant exposure to biological factors (bacteria, viruses) – health care, veterinary medicine, agriculture, forestry.

The most frequent occupational infectious diseases of viral origin: viral hepatitis, encephalitis; bacterial origin: Lyme disease, tuberculosis.

**7. Occupational skin diseases**

Occupational skin diseases caused by physical factors, biological factors, chemical factors. Occupational skin diseases prevention, examples of branches and professions at health risk of health damage caused by skin diseases.

**8. Occupational cancer diseases**

Classification of chemical agents from the aspect of carcinogenicity – according to International Agency for Research on Cancer (IARC).

Lung cancer – possible occupational cancer disease related to the exposure to inorganic and organic substances (asbestos, hexavalent chromium, PAHs, arsenic), ionising radiation.

Lung cancer – possible occupational cancer disease related to the exposure to vinyl chloride, leukemia - the potential for exposure to ionizing radiation, benzene.

examples of branches and professions at health risk with exposure to carcinogens.

**9. Damage to health during business trip/official journey**

General preconditions for working abroad (health checks, vaccinations, traveller's information concerning the conditions of travel and accommodation).

Damage to body caused by heat and sunlight, stinging insect-borne diseases (malaria, sleeping sickness, dengue, yellow fever), poisonous injuries caused by terrestrial animals (scorpions, snakes, poisonous spiders).

**10. Occupational stress**

Definition and characterisation of stress, sources of occupational stress, syndrome of occupational burnout.

Stress-related disorders: mental health (reaction to stress), response of cardiovascular system to stress, the digestive system response to stress.

Assessment of occupational health damage caused by stress, prevention of occupational stress – stress management.

**11. Specific problems related to occupational stress**

Damage to health caused while working with computers (visual and musculoskeletal disorders), prevention; risks of working at height, accidents at work.

**12. Intoxications**

Definition and division (acute, chronic, professional, non-professional). General principles of intoxication treatment – provision of initial aid.

**13. Damage to health in the selected sectors**

Extraction of mining minerals, iron, foundries, engineering, production of glass, building industry, textile industry, health care, ceramics, and agriculture.

**Recommended of required reading:**

1. BUCHANCOVÁ, J. A KOL. Pracovné lekárstvo a toxikológia
2. CIKRT, M. – BOHUSLAV, M. Pracovní lékařství II. díl, Nemoci z povolání.
3. JIRÁK, Z. a kol. Pracovní lékařství, III. díl, Hygiena práce v základních výrobních odvětvích.

**Language:** Slovak

**Remarks:**

**Evaluation history:** *Number of evaluated students*

A	B	C	D	E	FX
<b>Lectures:</b> doc. MUDr. Vladimír Oleár, CSc., MPH. , MUDr. Viliam Bršiak, MPH. MUDr. Jozef Ďaďan					
<b>Last modification:</b> 22.04.2014					
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