

**Univerzita Pavla Jozefa Šafárika v Košiciach, Lekárska fakulta**  
**Department of Public Health and Hygiene**

Hygiene 2022/2023

Course: Hygiene

Study program: General Medicine

Form of study: daily

Category of object: compulsory subject

Period: 4<sup>th</sup> year summer term

Form of teaching: lecture / seminars and practical exercise    hours: 1 lecture hrs. / 2 practical hrs. per week

Form completion: written exam computerized

Credits: 3

Room: ŠP3 and ŠP5

Teachers: Assoc. Prof. Rimárová Kvetoslava, CSc.

Prof. Kimáková Tatiana, PhD.

MVDr. Zlatana Sulinová, PhD.

Mgr. Erik Drabiščák, PhD.

Week	Lecture	13,30-15,00
1. 17.2.2023	Trieda SNP 1, P1 Water quality – risk of chemical and infectious factors, communicable diseases related to water, water supplies, the sources of drinking water. Division of WHO of all diseases related to the water. Division of waterborne diseases, epidemiology of water related diseases. Assoc. Prof. Rimárová Kvetoslava, CSc.	
3. 3.3.2023	Air pollutants – SO <sub>2</sub> , NXOX, VOC, ozone, heavy metals, PAH. Air pollutants – PAH, CFC, CO, CO <sub>2</sub> Aluminum, asbestos, radioactive metals, arsenic, PCB, PBB, PCDD, pesticides. Smog, categorization of smog. Assoc. Prof. Rimárová Kvetoslava, CSc.	
5. 17.3.2023	Environmental health, hygiene, basic definition of prevention. Environmental factors and modifying factors. Prof. Kimáková Tatiana, PhD.	
7. 31.3.2023	Risk assessment steps, Risk assessment and risk management Principles of exposure assessment. NOAEL and LOAEL Overview of human exposure to chemicals, routes, magnitude, duration, frequency. Assoc. Prof. Rimárová Kvetoslava, CSc.	
9. 14.4.2023	CINDI program, priorities. Primary, secondary and tertiary prevention. Examples of measures in primary, secondary and tertiary prevention. Disease categorization, old diseases – old problem, old diseases – new problem, new diseases – new problems. Prof. Kimáková Tatiana, PhD.	
11. 28.4.2023	Study design. Ecological studies, advantages and limitations, examples, solving the real situation. Cross-sectional studies, advantages and limitations, examples, solving the real situation. Case – control, advantages and limitations, examples, solving the real situation. Cohort studies–prospective and retrospective, advantages and limitations, examples, solving the real situation. Assoc. Prof. Rimárová Kvetoslava, CSc.	
13. 12.5.2023	Energetic and biologic values of food. Proteins, fats, saccharides, recommended daily allowances. Vitamins, minerals, recommended daily allowances. Prof. Kimáková Tatiana, PhD.	

Week	Practical Department of Public Health and Hygiene, Šrobárova 2, Košice			
1. 13.2. – 17.2. 2023	Introduction to the subject. Possible field visit. Organization of the semester. Demands for exam. Environmental health. Hygiene and preventive medicine, strategies for primary prevention, population and high risk strategy, prevention paradox.			
		<b>8,00-9,30</b>		
	Monday	<b>3ab</b> ŠP5		Mgr. Drabiščák
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>
	Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	
			prof. Rimárová	
2. 20.2. – 24.2. 2023	Water quality – chemical health, water pollution sources, nitrates. Laboratory methods for determination of drinking water. Water quality – communicable diseases related to water, water supplies, the sources of drinking water. Division of WHO of all diseases related to the water. Division of waterborne diseases, epidemiology of water related diseases. Possible field visit.			
		<b>8,00-9,30</b>		
	Monday	<b>3ab</b> ŠP5		prof. Rimárová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>
	Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	
			Mgr. Drabiščák	

3. 27.2. – 3.3. 2023	Physical factors in environmental and occupational health, Noise, occupational and environmental aspects, decibels. Hertz frequency, Lehman s classification. Lehman s classification. Noise, aural effect, extraaural effect, psychological effect of the noise. Hospital hygiene, ecology of hospital facilities, six basic areas /infectious, radiation, chemical, psychological, physiology of work, accidents. Model situation in the physical factors of occupation. Possible field visit.				
		<b>8,00-9,30</b>			
	Monday	<b>3ab</b> ŠP5		Mgr. Drabiščák	
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3	prof. Rimárová
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3	prof. Rimárová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3	prof. Rimárová
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	prof. Rimárová	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	prof. Rimárová	
4. 6.3. – 10.3. 2023	Vitamins, water soluble, fat soluble vitamins A,D,E,K. Hypovitaminosis, avitaminosis, hyper – vitaminosis. Mineral substances in nutrition: phosphorus, calcium, magnesium, iron, iodine, flour, selenium, zinc. Chemical food contamination - mercury, lead, cadmium, pesticides. Possible field visit.				
		<b>8,00-9,30</b>			
	Monday	<b>3ab</b> ŠP5		Mgr. Drabiščák	
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3	prof. Rimárová
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3	prof. Rimárová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3	prof. Rimárová
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	prof. Rimárová	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	prof. Kimáková	
5. 13.3. – 17.3. 2023	Lipids and fats in nutrition. Saccharides, rec. daily allowances Proteins and malnutrition, marasmus and kwashiorkor. Vegetarian diet. Advantages and disadvantages. Limited amino acids. Nutrition and oral health, nutritional status of population and methods for assessment. Possible field visit.				
		<b>8,00-9,30</b>			
	Monday	<b>3ab</b> ŠP5		prof. Kimáková	
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3	MVDr. Sulínová
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3	MVDr. Sulínová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3	MVDr. Sulínová
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	prof. Kimáková	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	MVDr. Sulínová	

6. 20.3. – 24.3. 2023	Climate factors, air pollution, generally. Smog categorization, London smog, Los Angeles smog. Greenhouse effect, ozone hole. Global atmospheric issues. Indoor pollution – allergens, cooking gas, radon emissions, formaldehyde, ammonium passive smoking, bacteria, fungi. Possible field visit.				
		<b>8,00-9,30</b>			
	Monday	<b>3ab</b> ŠP5			MVDr. Sulínová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3	prof. Kimáková
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3	prof. Kimáková
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3	prof. Kimáková
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3		
	prof. Kimáková	MVDr. Sulínová	MVDr. Sulínová		
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	prof. Kimáková	
7. 27.3. – 31.3. 2023	Evaluation of child's growth, BMI, Rohrer's index, Brugh's index. Biological age, bone age, tooth age, primary and secondary sexual signs. Hygienic requirements on the organization and equipment on child's collective facilities, day nurseries, kindergartens, hygienic requirements, organization of educational process, Healthy schools. Visiting kindergarten or school.				
		<b>8,00-9,30</b>			
	Monday	<b>3ab</b> ŠP5			Mgr. Drabiščák
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3	MVDr. Sulínová
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3	MVDr. Sulínová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3	MVDr. Sulínová
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	MVDr. Sulínová	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	MVDr. Sulínová	
8. 3.4. – 7.4. 2023	Heavy metals – lead, mercury, cadmium, arsenic, chromium, nickel. Heavy metals, chromium, nickel, manganese, selenium, beryllium. Biologic agents in the workplace. Dust and fumes, silicosis, asbestosis, non fibrogenic agents, pneumoconiosis. Visible light effect. Possible field visit.				
		<b>8,00-9,30</b>			
	Monday	<b>3ab</b> ŠP5			MVDr. Sulínová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3	Mgr. Drabiščák
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3	prof. Kimáková
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3	Mgr. Drabiščák
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	Mgr. Drabiščák	
Friday	-	-	-		

9. 10.4. - 14.4 2023	Food quality assessment. Principles of chemical and microbiological food quality Risk of communicable disease from food – biological contamination of food. Solid waste management. Possible field visit.				
	Monday	-			
	Monday	-	-	-	
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3	MVDr. Sulinová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3	MVDr. Sulinová
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	MVDr. Sulinová	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	MVDr. Sulinová	
10. 17.4. - 21.4. 2023	Assessment of the nutritional status of population. BMI index standards and values, WHR index standards and values. Measuring body fat. Health and nutritional status of population, methods for assessment, energetic and biologic value of food.				
		<b>8,00-9,30</b>			
	Monday	<b>3ab</b> ŠP5			prof. Rimárová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3	prof. Kimáková
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3	prof. Kimáková
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3	prof. Kimáková	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	prof. Kimáková	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	prof. Kimáková	
11. 24.4. - 28.4. 2023	Ionizing radiation – human exposure, stochastic and non-stochastic effect. Ultraviolet radiation. Infrared radiation and radiofrequencies and microwaves, lasers. Vibration Biologic effect of ionizing radiation acute and chronic effects, cancer. Carcinogens, mutagens and teratogens, group A,B,C,D. Maximum allowable concentration Visiting public health institute.				
		<b>8,00-9,30</b>			
	Monday	<b>3ab</b> ŠP5			prof. Rimárová
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
	Monday	<b>16ab</b> ŠP3	<b>10ab</b> ŠP3	<b>15ab</b> ŠP3	Mgr. Drabiščák
		<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>	
	Tuesday	<b>9ab</b> ŠP3	<b>5ab</b> ŠP3	<b>8ab</b> ŠP3	Mgr. Drabiščák
		<b>8,00-9,30</b>	<b>10,00-11,30</b>	<b>11,45-13,15</b>	
Wednesday	<b>7ab</b> ŠP3	<b>13ab</b> ŠP3	<b>4ab</b> ŠP3	Mgr. Drabiščák	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Thursday	<b>2ab</b> ŠP3	<b>12ab</b> ŠP3	<b>6ab</b> ŠP3	Mgr. Drabiščák	
	<b>8,00-9,30</b>	<b>9,45-11,15</b>	<b>11,30-13,00</b>		
Friday	<b>11ab</b> ŠP3	<b>1ab</b> ŠP3	<b>14ab</b> ŠP3	Mgr. Drabiščák	

12. 1.5. - 5.5. 2023	Epidemiological studies – advantages and disadvantages. Cross-sectional study. Case-control study. Longitudinal study.				
	Monday	-			
	Monday	-	-	-	
		8,00-9,30	9,45-11,15	11,30-13,00	
	Tuesday	9ab ŠP3	5ab ŠP3	8ab ŠP3	prof. Kimáková
		8,00-9,30			
	Wednesday	3ab ŠP5			prof. Rimárová
		8,00-9,30	10,00-11,30	11,45-13,15	
	Wednesday	16ab ŠP3	10ab ŠP3	15ab ŠP3	prof. Kimáková
		8,00-9,30	9,45-11,15	11,30-13,00	
Thursday	2ab ŠP3	12ab ŠP3	6ab ŠP3	prof. Kimáková	
	8,00-9,30	9,45-11,15	11,30-13,00		
Friday	11ab ŠP3	1ab ŠP3	14ab ŠP3	prof. Kimáková	
13. 8.5. - 12.5. 2023	Occupational health in context with environmental health. Health impairment in the work environment. Chemical factors, criteria for health impairment, selected suspect carcinogens. Asbestos exposure in occupational setting, in buildings, asbestos – related diseases.				
	Monday	-			
	Monday	-	-	-	
		8,00-9,30	9,45-11,15	11,30-13,00	
	Tuesday	9ab ŠP3	5ab ŠP3	8ab ŠP3	prof. Rimárová
		8,00-9,30	10,00-11,30	11,45-13,15	
	Wednesday	7ab ŠP3	13ab ŠP3	4ab ŠP3	prof. Rimárová
		8,00-9,30	9,45-11,15	11,30-13,00	
	Thursday	2ab ŠP3	12ab ŠP3	6ab ŠP3	prof. Rimárová
		8,00-9,30	9,45-11,15	11,30-13,00	
Friday	11ab ŠP3	1ab ŠP3	14ab ŠP3	prof. Rimárová	
14. 15.5. - 19.5. 2023	Summary credits, preterm tests preparation.				
		8,00-9,30			
	Monday	3ab ŠP5			Mgr. Drabiščák
		8,00-9,30	10,00-11,30	11,45-13,15	
	Monday	16ab ŠP3	10ab ŠP3	15ab ŠP3	prof. Rimárová
		8,00-9,30	9,45-11,15	11,30-13,00	
	Tuesday	9ab ŠP3	5ab ŠP3	8ab ŠP3	prof. Rimárová
		8,00-9,30	10,00-11,30	11,45-13,15	
	Wednesday	7ab ŠP3	13ab ŠP3	4ab ŠP3	prof. Rimárová
		8,00-9,30	9,45-11,15	11,30-13,00	
Thursday	2ab ŠP3	12ab ŠP3	6ab ŠP3	prof. Rimárová	
	8,00-9,30	9,45-11,15	11,30-13,00		
Friday	11ab ŠP3	1ab ŠP3	14ab ŠP3	prof. Kimáková	

**Conditions for exam: Active participation on practicals**

**Topics in selected weeks are subject of the change due organization management.**

**Form of exam: Written, computerized ROGO**

**Condition for exam: maximum 2 absences on practical exercises during semester including week 14<sup>th</sup> (means from week 1 to week 13 maximum 1 absences)**

**Replacement of practical: Withing the same week and same topic student can replace practical wit another group**

**Literature: - compulsory**

**RIMÁROVÁ, K.: Environmental medicine – hygiene. Košice, Univerzita Pavla Jozefa Šafárika v Košiciach, 2006. - 148 s. - ISBN 80-7097-646-2.**

**RIMÁROVÁ, K.: Compendium of Hygiene. Košice, 2014.**

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