

**SPECIALIST DEGREE PROGRAMME 31.05.01 'GENERAL MEDICINE'**

**COURSE (MODULE) 'HYGIENE'**

**OVERVIEW**

Mode of study	full time
Faculty	International Institute of Medical Education and Cooperation
Department	General Hygiene
Year	2, 3
Semester –	4, 5 – Hygiene (252 ac.h.)
Lectures –	30 ac.h.
Exam –	5 semester 9 ac.h.
Practical classes	84 ac.h
Contact classes	114 ac.h.
Self-study	129 ac.h
Total workload	252 ac.h (7 credits)

The course (module) is devised according to FSES HE requirements approved on February,9, 2016 by Order of Ministry of Health, Russian Federation) and vocational functions of General Practitioner (primary care physician, district doctor) Professional Standard.

**1. THE COURSE AIM AND SCOPE**

**The aim** -providing students with information for the development of the methodology of preventive medicine, the acquisition of hygienic knowledge and abilities to assess the impact of environmental factors on human health and the population;

-the formation of a hygienic way of thinking among students, the development of an understanding of the relationship between human health and the environment (factors and living conditions, work) in order to actively participate in scientifically based and effective measures for the prevention of diseases, promoting a healthy lifestyle.

**The course focuses on:**

- formation knowledge and abilities of hygienic diagnostics of the state of public health and the environment;
- creation the scientific basis of hygiene and methods of hygienic research of environmental objects;
- study the principles of wellness and preventive measures;
- acquire practical skills in the study of environmental factors;
- study the impact of environmental and human factors on public health;
- understanding the tasks of hygienic science and public health practice in conducting environmental protection measures and improving the environment.

**2. THE COURSE POSITION IN SPECIALIST DEGREE PROGRAMME 31.05.01 'GENERAL MEDICINE'**

The course 'Hygiene' is taught in the block B1 (B1.B24) of the base part of 'General Medicine'.

The background knowledge for the course has been taught in:

- **basic subjects** (Physics, Mathematics; Biology; Chemistry; Biochemistry; Anatomy; Histology, Cytology, Embriology; Normal Physiology; Microbiology, Virology;
- **variable subjects** (Bioorganic Chemistry).

### 3. OUTCOME COMPETENCIES OF THE COURSE

On completing the course a student is expected to

#### 1. know

- Fundamentals of the interaction of the human body and the environment, the role of hygiene in the scientific development of the problem of strengthening health, increasing efficiency, prolonging the active life of a person, the essence of primary and secondary prevention.
- Hygienic terminology, basic concepts and definitions used in preventive medicine.
- Hygienic characteristics of various environmental factors, the mechanisms of their impact on the body and the forms of manifestation of effects at the prenosological level.
- The principles of hygienic standardization of environmental factors.
- Methods of hygienic research of environmental objects.
- Modern hygiene problems in the prevention of diseases of an infectious and non-infectious nature.
- The basic principles of building of healthy lifestyle.

#### 2. to be able to

- Apply methods: sanitary description when examining water sources, residential and public buildings, organoleptic research of water, food; express and calculation methods in the study of toxicity of chemicals; assessment of the body's response to the effects of adverse environmental factors.
- Conduct sanitary-hygienic studies of the physical properties of the environment: temperature, humidity, air velocity, atmospheric pressure, ionization, electromagnetic radiation, mechanical vibrations of the air.
- Take samples of air, water, soil, food and other environmental objects for sanitary-chemical research.
- Assess the quality of air, water, soil, food products according to the results of sanitary-chemical and sanitary-physical studies.
- Experimentally evaluate the bacteriological composition of water, air, soil, food, flushing from the surfaces of objects according to bacteriological analyzes.
- Justify the drinking regime, the organization of water supply and the quality of water treatment in the field.
- Assess the nutritional status of military personnel.
- Carry out hygienic education and training of the population on healthy lifestyle and personal hygiene, using favorable climatic factors for health purposes.
- Use educational, scientific and reference literature, the Internet for professional activities.

#### 3. to use

- Methods of organoleptic research of water, food.
- The methodology for the collection, processing and analysis of data about environmental factors and public health.
- Methods of monitoring the quality of drinking water and water in reservoirs, atmospheric air, soil.
- Methods for assessing the quality of the state of the artificial human environment.
- Methods of preventing the impact of harmful working factors on the human body.

Learning outcomes	Competency developed: a description of (compulsory) threshold level	Competency code
<b>Professional competences (PC)</b>		
<p><b>A student knows</b></p> <ul style="list-style-type: none"> <li>- Population health indicators;</li> <li>- Factors influencing the health;</li> <li>- Hygienic aspects of nutrition;</li> <li>- Diseases associated with adverse effects of climatic and social factors</li> </ul>	<p>ability and readiness to implement a set of measures aimed at preserving and promotion of health and including the formation of a healthy lifestyle, preventing the occurrence and (or) spread of diseases, their early diagnosis, identifying the causes and conditions of their occurrence and development, as well as aimed at eliminating harmful effects on human health of environmental factors</p>	<p>professional competency- <b>1</b></p>
<p><b>A student is able to</b></p> <ul style="list-style-type: none"> <li>- Establish cause-effect relationships of changes in the state of health from the influence of environmental factors;</li> <li>- Plan, analyze and evaluate the state of health and the impact of environmental factors on it</li> </ul>		
<p><b>A student uses adequate methods for interpretation of</b></p> <ul style="list-style-type: none"> <li>- the state of health;</li> <li>- the results of laboratory methods for environmental diagnostics</li> </ul>		
<p><b>A student knows</b></p> <ul style="list-style-type: none"> <li>- Methods of health education;</li> <li>- The basics of preventive medicine, the organization of preventive measures aimed at improving of public health</li> </ul>	<p>readiness to teach patients and their relatives basic hygiene measures of a health improving nature, skills of self-monitoring of basic physiological indicators that contribute to the preservation and promotion of health, and the prevention of diseases</p>	<p>professional competency - <b>15</b></p>
<p><b>A student is able to</b></p> <ul style="list-style-type: none"> <li>- Analyze and evaluate the impact of environmental factors on the health of adults and children;</li> <li>- Carry out preventive measures to increase the body's resistance to adverse environmental factors using hardening;</li> <li>- Advocate for healthy lifestyles</li> </ul>		
<p><b>A student applies</b></p> <ul style="list-style-type: none"> <li>- Assessment of the state of public health</li> </ul>		
<p><b>A student knows</b></p> <ul style="list-style-type: none"> <li>- Factors influencing the health;</li> <li>- Health indicators;</li> <li>- Methods of sanitary and educational work;</li> <li>- The basics of preventive medicine, the</li> </ul>	<p>readiness to educate on the elimination of risk factors and the formation of skills for a healthy lifestyle</p>	<p>professional competency - <b>16</b></p>

Learning outcomes	Competency developed: a description of (compulsory) threshold level	Competency code
<b>Professional competences (PC)</b>		
organization of preventive measures aimed at improving of public health		
<b>A student is able to</b> <ul style="list-style-type: none"> <li>- Assess social factors affecting on the state of physical and psychological health of the population;</li> <li>- Carry out preventive measures to increase the body's resistance to adverse environmental factors using various methods of physical culture and sports, hardening;</li> <li>- Advocate for healthy lifestyles</li> </ul>		
<b>A student uses methods of</b> <ul style="list-style-type: none"> <li>- Assessment of the state of public health</li> </ul>		

#### 4. THE COURSE (MODULE) 'HYGIENE' SYLLABUS AND CONTENTS

Total workload is 7 credits (252 ac.h.).

No.	Part (Module)	Semester	Study forms (including self-study and workload in ac.h.)			Formative assessment (weekly). Summative assessment (by semesters)
			Lectures	Practical classes	Self-study	
1.	Introduction	4	2	-	4	Q T C P exam - 5 semester
2.	Hygiene of air	4	4	15	13	Q T C P A exam - 5 semester
3.	Hygiene of water and water supply	4	4	9	13	Q T C P A exam - 5 semester
4.	Hygiene of hospitals	4	4	6	10	Q T C P A exam - 5 semester
5.	Occupational hygiene	4,5	6	9	12	Q T C P A exam - 5 semester
6.	The final class of the semester	4	-	3		Q T C P exam - 5 semester
7.	Nutrition hygiene	5	4	24	24	Q T C P A exam - 5 semester
8.	Hygiene of children & teens	5	2	12	20	Q T C P A exam - 5 semester
9.	Healthy lifestyle	5	2	3	16	Q T C A exam - 5 semester
10.	Urbanization	5	2	-	17	Q T C P exam - 5 semester
11.	The final lesson	5	-	3		Q T C P exam - 5 semester
	<b>Total</b>		<b>30</b>	<b>84</b>	<b>129</b>	
	<b>Exam</b>				<b>9</b>	
<b>TOTAL</b>			<b>252 ac.h. / 7 credits</b>			

Q - Questions, T –Test, C – Cases, Preparation of the abstract, A – Algorithms of performance.

Acting Head of General Hygiene Department,  
Associate Professor

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