# MINISTRY OF EDUCATION AND SCIENCE KYRGYZ REPUBLIC OSH STATE UNIVERSITY INTERNATIONAL MEDICAL FACULTY DEPARTMENT OF PUBLIC HEALTH

REVIEWED	Approved						
at the meeting of the Department minute №	Chairman of the IMF EMC,						
from "" 2022 year	Salieva R.Sh.						
Head of the Department	"2022 year						
Associate Professor Turusbekova A.K.							

# **SYLLABUS**

Of the discipline: "Hygiene and nutritionology" for students studying in the direction of: "560001-General Medicine (GM)»

Total \_5\_credits, course \_2\_, semester\_3\_
Overall labor intensity\_150\_hours, including:
Total classroom hours\_75h\_(lectures\_30\_, practical classes \_45\_hours)
SIW\_75\_hours
Number of border controls \_2\_, exam \_I\_ semester

**Information about the lecturer:** Shahmatova Anara Kydykovna- Candidate of medical Sciences, 0770778077, <a href="mailto:cemahe\_2019@mail.ru">cemahe\_2019@mail.ru</a>

### **Teachers:**

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- 2. Zaniev Islam Mahamatalievich- teacher, 0500324598, OshSU, IMF.
- 3.Davranbek kyzy Meerim- teacher 0221223799, OshSU, IMF
- 4. Omaralieva Dinara Abdimalikovna teacher 0779067616, OshSU, IMF

# 1. OBJECTIVES OF DISCIPLINE

To familiarize students with the impact on the human body of social and natural factors, as well as familiarization with activities, health conditions, aimed at improving the environment, public health and improving the quality of life.

# 2. Learning outcomes (LO) and student competencies formed in the process of studying the discipline "Hygiene and nutritionology".

In the process of mastering the discipline, the student will achieve the following learning outcomes (LO) and will have the appropriate competencies:

LO BEP code and its formulation	The competence of the LO	Code of LO discipline and its formulation
LO 6-Knows how to apply basic knowledge in the field of preventive activities to solve professional tasks.	PC-7-to carry out preventive measures for the prevention of infectious, parasitic and non-infectious diseases, to carry out sanitary and educational work on hygienic issues;	Carry out preventive measures with the population to prevent the occurrence of the most common infectious diseases.  Ability: to carry out General health measures for the formation of a healthy lifestyle, taking into account risk factors.  Objective: to assess the effectiveness of preventive measures.
	PC-8- to carry out preventive measures with the population attached to prevent the occurrence of the most common diseases, to carry out general health-improving measures to form of healthy lifestyle, taking into account risk factors, to give recommendations on healthy nutrition.  PC-22- is able to teach the adult population, children	carry out preventive measures with the population to prevent the occurrence of the most common infectious diseases.  Ability: to carry out General health measures for the formation of a healthy lifestyle, taking into account risk factors.  Objective: to make recommendation by healthy nutrition.  Knows and understands: about the rules of medical behavior
	the rules of medical behavior, to carry out hygienic procedures, to form the skills of a healthy lifestyle.	Ability: to carry out hygienic procedures  Objective: to form the skills of a healthy lifestyle.

LO- 10-possesses management skills in the healthcare system, enter accounting and reporting documentation analyze statistical data	SPC-4- is able to apply modern social and hygienic methods for collecting and medical-statistical analysis of information on the health indicators of the child population.	Knows and understands: modern social and hygienic methods  Able to: analyze information about the health indicators of the child population  Objective: To skills to apply statistical analysis techniques
LO-11- Able to apply basic knowledge in the field of research activities to solve professional problems	PC-27 - ready to study scientific and medical information, domestic and foreign experience on the research topic.	Knows and understands: scientific and medical information Able to: analyze information about domestic and foreign topics. Owns: domestic and foreign experience on the subject of research

# During the development of the discipline student will be Know and understand:

- The basics of interaction between the body and the environment.
- Modern social and hygienic methods
- Features of the influence of various environmental factors on health, ways of their impact and forms of their manifestation.
- Principles of organization of measures to prevent adverse effects of environmental factors on the human body.
- Principles of hygienic regulation and prediction of environmental factors.
- Modern hygienic problems of prevention of infectious and non-infectious diseases.
- The role of hygiene in the scientific development of health promotion problems, improving efficiency, prolonging active life. Hygienic basis of a healthy lifestyle.

#### Able to:

- Measure temperature, humidity, air mobility, barometric pressure, air ionization.
- To make a motivated conclusion about the state of nutrition and to develop hygienic recommendations for the approximation of actual nutrition in physiological needs, as well as for the normalization of the diet.
- Draw up an opinion on the quality of food products.
- Draw up an act of investigation of cases of food poisoning
- Diagnose or establish the nature of food poisoning
- -Carry out preventive measures with the population to prevent the occurrence of the most common infectious diseases
- to carry out General health measures for the formation of a healthy lifestyle, taking into account risk factors

# Own:

- -Culture of thinking in the field of hygiene
- -Skills of application of methods of measurement and forecasting of environmental factors on human health
- -Skills of scientific research and analysis of socially significant problems in the field of health promotion.

- -Bases of the organization of sanitary and epidemiological service, its tasks.
- -Methodical bases of hygienic researches.
- Skills to apply statistical analysis techniques
- Make recommendation by healthy nutrition
- -To form the skills of a healthy lifestyle.

# 3. COURSE PREREQUISITES

The subject of community medicine as an academic discipline is based on the students' study of ecology, biology, Biophysics, medical physics, chemistry, normal physiology, microbiology and virology integrated with these disciplines.

# 4. COURSE POST-REQUISITES

Public health, infectious diseases, pathological physiology, occupational diseases, pediatrics, epidemiology, nutritional hygiene.

# **5. Technological map of the discipline** "Hygiene and nutritionology".

						1 mod	ule			2 mod	ule			Final c	ontrol (4	0B.)
						(30 p.)	(30 p.)			(30 p.)	)					
						Currer	Current control			Currei	nt contro	ol				
Total hours		AUD. lessons	Lecture	Prakt. (seminar.)	ISW	Lecture	Practice	ISW	Midterm control	Lecture	Practical classes	ISW	Midterm control		Practical classes	
150		75	30	45	75	16	24	40		14	21	30		Lecture	Practica	ISW
	Point	S				30	30	30	30	30	30	30	30	30	30	30
	Total	modu	les			M1=30+30+30+30/3=30 p. M2=30+30+30/3=30 p. T=(30+30+30						+30+30)	/3=30p			
	Total	score				T=M1	+M2+I	Ex=30+.	30+40=1	00p				•		

# 6. Map a set of points on the subject

Form of control	M1	Total
Attendance	5	5
Notebooks	5	5
Oral survey	15	15
Team work	5	5
Test control	5	5
Total	30	30

Map a set of points on TK

Mod-1	Attendance	notebooks	oral survey	Team work	Test control	Total
Topic1	5	5	10	5	5	30
Topic 2	5	5	10	5	5	30
Topic 3	5	5	10	5	5	30
Topic 4	5	5	10	5	5	30
Topic 5	5	5	10	5	5	30
Topic 6	5	5	10	5	5	30
Topic 7	5	5	10	5	5	30
Topic 8	5	5	10	5	5	30
Topic 9	5	5	10	5	5	30
Topic 10	5	5	10	5	5	30
Total	50	50	100	50	50	(T/10)=30

# 7.Summary of the discipline

This program is written taking into account the new requirements imposed by the higher school and is intended for students of the specialty "560001-Medical business" of higher medical educational institutions.

**Introduction to the subject** "Hygiene and nutritionology". "Hygiene and nutritionology" as a science and subject of teaching, purpose and content, methods of hygienic research. Factors determining the health of the population. The law of hygiene. Brief historical information about the development of hygiene. The role of foreign scientists in the development of hygiene. The contribution of Russian scientists to the development of hygiene. Basic methods of hygienic research. Basic methods of modern hygiene. The value of hygienic knowledge in the practice of the attending physician. The emergence of hygienic knowledge among ancient peoples.

Place and importance of food hygiene. Physiological and hygienic foundations of nutrition. The importance of nutrition for public health. Social problems of food hygiene. Basic principles of rationing of the population's nutrition. Energy assessment of the diet. Basic metabolism and energy consumption of a population group. Balanced nutrition and basic principles of balance.

**Physiological and hygienic value of proteins and carbohydrates.** Physiological and biological value of fats and minerals. Proteins are the main constituent of food. Carbohydrates are a source of energy. The importance of the composition of proteins and carbohydrates in nutrition. The body's need for proteins and carbohydrates. The main sources of proteins and carbohydrates. The problem of protein "starvation". The importance of the composition of fats and minerals in nutrition. The need for and rationing of fat. The body's need for minerals. The main sources of fats and minerals.

**The physiological significance of vitamins**, the need for them, the main sources. Hygienic value of vitamins. Vitaminization of food products. The need for vitamins in children. A source of vitamins. Classification of vitamins. Fat-soluble vitamins. Water-soluble vitamins. Vitamin deficiency. Prevention of vitamin deficiency.

**Food poisoning of non-microbial origin**. Prevention. Food poisoning of microbial origin and their prevention. Food poisoning, definition, classification. Food poisoning of non-microbial origin. Mushroom poisoning. Poisoning by poisonous plants. Poisoning with animal tissues. Preventive measures.

Hygiene of children and adolescents, purpose and objectives. Factors determining the health of children and adolescents. The growth and development of the child's body. The main patterns

of growth and development of the child's body. Stages of development of the child's body. Monitoring the physical development of children and adolescents. Age anatomical and physiological characteristics of a growing organism, their hygienic significance.

Hygienic basics of water supply. Water as a factor in health. Hygienic requirements for water quality in centralized water supply systems. Hygienic value of water (physiological, household, health-improving, medicinal, national). Water consumption standards. Water supply sources, their comparative hygienic characteristics. Water supply system and their comparative hygienic assessment. Hygienic issues of arrangement and operation of local water supply sources.

The role of water in the spread of infectious and non-infectious diseases and their prevention. Methods for improving water quality. The role of water in the spread of infectious diseases. Water as a factor of non-infectious diseases. Prevention of caries, dental fluorosis, etc. General requirements for water quality. Water quality indicators (organoleptic, chemical composition, epidemiological safety).

Hygiene of the air, hygienic significance of the physical factors of the air. Acclimatization. Air composition and its hygienic significance. General principles of atmospheric air protection. Atmospheric pressure and its effect on the body. Prevention of diseases associated with increased and decreased blood pressure.

**Hygienic and epidemiological values of soil**, Soil research methods. Solving situational tasks. Composition of the soil and its hygienic significance. General principles of soil protection. Source of soil pollution.

**Hygienic bases of placement and planning of hospitals.** Prevention of nosocomial infections. Choosing a place for the construction of medical institutions. The area of the premises. Orientation. Light coefficient. Hygienic assessment of microbial air pollution. Sanitary-technical equipment of the polyclinic. Hospital-acquired infection and its prevention.

# Classification of occupational diseases and their prevention.

To acquaint students with the methods of assessing the working capacity by indicators of the functional state of the body. To be able to conduct research on the functional state of the human body in the process of labor activity. Be able to assess performance and give recommendations for reducing fatigue.

Community medicine-the science of preserving and promoting health. The study of all these issues is engaged in science, called hygiene. Hygiene (from Greek. "hygieinos" — "healthy") is a branch of medicine that studies the influence of the conditions of life and labour on human health and develops measures for disease prevention, the provision of optimal conditions for the existence and preservation of health and prolongation of his life.

General hygiene reveals the main provisions of the doctrine of the environment, the laws of the impact of natural, domestic, industrial factors on the health and morbidity of the population, as well as determines the direction of health measures.

The external environment is a complex of various factors, which by their nature are divided into three groups: physical, chemical and biological. The physical factors of the environment include temperature, humidity and air movement; atmospheric pressure and atmospheric electricity; solar radiation, etc. chemical factors include various substances that are the basis of the environment (in the composition of air, water, soil), or their impurities (for example, in different areas in water and air may contain different chemical compounds). The biological factors of the environment include primarily pathogenic microbes, viruses, fungi.

# 8.1. Calendar and thematic plan of discipline by type of classes

№ no. and name topics	Se m	Studied questions and tasks	hou rs	Poi nts	Litera ture	Use of educati onal technol ogies	Weeks
1	2	3	4	5	6	7	8
1	2		4	3	0	/	0
		Module 1					
Theme 1	1	Plan					
Introduction to hygiene and nutrition. The history of the development of hygiene		<ol> <li>The purpose and objectives of hygiene.</li> <li>General characteristics.</li> <li>The history of hygiene.</li> <li>Control questions:</li> <li>The definition of hygiene as a science.</li> <li>The basic methods of hygienic research.</li> <li>Basic methods of modern hygiene.</li> <li>The laws of hygiene.</li> <li>Primary prevention</li> <li>Secondary prevention</li> <li>Form of control: UO, T, NW.</li> </ol>	3	30	1, 2	PKC,sli de,vide o clip, posters	1
Theme 2.  Principles of hygienic standards. Factors affecting health, classification	2	Plan  1.Factors affecting human health. 2.Principles of hygienic standarts 3.Classification of environmental factors	3	30	2, 3, 5, 11, 16	PKC,sli de,vide o clip, posters	2
		Control questions:  1. The value of hygienic knowledge in the practice of the attending physician.  2. The emergence of hygienic knowledge among ancient peoples.  3. Environmental factors and their hygienic characteristics Form of control: UO, T, NW.					
Theme 3. Water as a health factor. Water supply system, water pollution		1. Water as a health factor. 2. Household drinking water. 3. Centralized and decentralized water supply. 4. The chemical composition of water. 5. The organoleptic properties of water. 6. The epidemiological significance of water. Control questions: 1. What is the role of water in human life?	3				

Theme 4. Nutrition as a health factor. Nutrients and their classification. The concept of diet. Food pyramid		2. What are the norms of water consumption? 3. List the organoleptic properties of water 4. List the main sources of water? Form of control: UO, T, NW.  Plan 1. Nutrition as a health factor. 2. Food pyramid. 3. Physiological and hygienic fundamentals of nutrition. 4. The concept of nutritional balance. 5. Brief historical information on the development of food hygiene.  Control questions:	3	30	2, 3, 5, 11, 16	PKC,sli de,vide o clip, posters, TBL	3
		<ol> <li>The value of nutrition for public health.</li> <li>Social problems of food hygiene.</li> <li>The basic principles of rationing the nutrition of the population.</li> <li>Energy assessment of the food ration.</li> <li>The main exchange and energy costs of a population group.</li> <li>A balanced diet and the basic principles of balance.         Control form: UO, T,     </li> </ol>					
Theme 5. Physiological and hygienic basics of nutrition. Alimentary diseases and their prevention. Proteins. Carbohydrates.	5	<ol> <li>Source of proteins and carbohydrates</li> <li>Hygienic importance of proteins and carbohydrates in the nutrition of the population.</li> <li>Proteins and carbohydrates their nutritional and biological value.</li> <li>Alimentary diseases, their classification</li> <li>Control questions:         <ol> <li>Proteins and carbohydrates are the main component of food.</li> <li>Proteins and carbohydrates - a source of energy.</li> <li>The value of the composition of proteins and carbohydrates in food.</li> <li>The need of the body for proteins and carbohydrates.</li> <li>The main sources of proteins and carbohydrates.</li> <li>The problem of protein "starvation."</li> </ol> </li> </ol>	3	30	2,4,1	PKC,sli de,vide o clip, posters	4
Theme 6. Hygienic problems of imbalance of fats in the diet. Saturated	6	Plan  1. Source of fats  2. Hygienic importance of fats in the nutrition of the population.	3	30	2, 4, 8, 13, 14	PKC,sli de,vide o clip, posters	6

and polyunsaturated		3. Fats their nutritional and biological					
fats.		value.					
		4. Deficiency of fats					
		Control questions:					
		1. Fats are the main component of					
		food. 2. Sources of fats					
		3. The value of the composition of fats					
		in food.					
		4. The need of the body for fats.					
		5. The main sources of fats.					
		Form of control: UO, T, NW.					
Theme 7. Vitamins		Plan	3	30	1,2,4,	PKC,sli	7
and minerals, their		1. Source of minerals			6.	de,vide	
classification. Hypo-		2. Hygienic importance of minerals in the nutrition of the population.				o clip,	
and hypervitaminosis. The physiological		3. Minerals their nutritional and				posters	
significance of		biological value.					
minerals and the need		4. Deficiency of minerals					
for them.		Control questions:					
		1. Minerals are the main component of					
		food. 2. Vitamins. The role of vitamins in					
		metabolism.					
		3. The value of the composition of minerals					
		in food.					
		4. The need of the body for minerals.					
		<ul><li>5. The main sources of minerals.</li><li>6. Fat-soluble vitamins.</li></ul>					
		7. Water-soluble vitamins.					
Theme 8. Dietology.		Plan				PKC,sli	
Types of dietetics. The		1 tun				de,vide	
influence of nutrition	4	1. Fundamentals of dietetics	3	1,25	6,	o clip,	8
on the health and		2. Types of medical diets			12,	posters	
working capacity of		3. Diet from No. 1a, 1b to No. 15 4. Nutrition of a healthy and sick			15,		
the population.		person			16		
		Control questions: 1. What does diet number 1 include					
		2.What is the diet for diabetics					
		3. What is the diet for TB patients					
		4. What is the diet for patients with					
		stomach ulcers					
		5. What is the diet for patients with					
		acute infectious diseases					
		Module II					

Theme 9. Food		Plan:	3			PKC,sli	
poisoning, their						de,vide	
classification,		2. Infections transmitted through		1,25	6,	o clip,	8
prevention. Infectious		nutrition. 2. Food poisoning,			10	posters	
diseases transmitted		concept, classification 3. Food poisoning of non-microbial			12,	-	
through food. Food		etiology.			15,		
poisoning of		4. Food poisoning microbial			16		
microbial and non-		etiology.					
microbial origin.							
		Control questions:					
		<ol> <li>Food poisoning, definition, classification.</li> <li>Food poisoning of non-microbial origin.</li> <li>Poisoning by mushrooms.</li> <li>Poisoning by poisonous plants.</li> <li>Poisoning by animal tissues.</li> <li>Prevention measures.</li> <li>Food toxicoinfections and the role of individual food products in their distribution.</li> <li>Bacterial toxicosis (intoxication), the conditions necessary for their occurrence.</li> <li>Clinic of botulism and staphylococcal</li> </ol>					
		intoxication.					
		10. First aid for food poisoning.					
Theme 10.	9	Plan	3	30		PKC,sli	
Hygiene of children and adolescents. Physical development of children and adolescents.		1. Growth and development of the child's body. 2. The main laws of growth and development of the child's body. 3. Stages of development of the child's body. 4. Monitoring the physical development of children and teenagers. Control questions: 1. Hygiene of children and adolescents as a branch of medicine aimed at improving the health of the younger generation. Aim and tasks. 2. Stages of development of the child's body. 3. The age-related anatomical and physiological characteristics of a growing organism, their hygienic significance. 4. Acceleration of growth and development. 5. WHO (world health organization) definition of health. 6. Health group of children and teenagers. Form of control: UO, T, NW.			2, 3, 5, 11, 16	de, vide o clip, posters	10

Theme 11		Plan	3			PKC,sli	
						de,vide	
11. Problems of air		1. Air environment		30	1, 3,	o clip,	13
hygiene. Structure,		2. The chemical composition of air			4, 9,	posters	
chemical composition		3. Air pollution			11		
of the atmosphere.		4. Hygienic significance of physical					
Air pollution, their		properties					
hygienic		Control questions:					
characteristics.		1. What is the chemical composition of					
		air					
		2. What is the climate and					
		microclimate?					
		3. What is the hygienic value of the					
		physical properties of air.					
		Form of control: UO, T, NW.					
Topic 12.		Plan:	3	30		PKC,sli de,vide	14
12. Soil hygiene. Soil	12	1. General characteristics of the soil.			2, 3,	o clip,	
pollutions. Cleaning		2. Hygienic significance of the			5, 11,	posters	
populated areas.		composition and properties of the soil.  3. Self-cleaning of the soil.			16	posters	
		4. Duration of survival in the soil of					
		pathogenic microbes.					
		5. Epidemiological significance of the					
		soil.					
		Control questions:					
		1. Indicate the basic properties of the					
		soil.					
		2. Indicate the composition and					
		physical properties 3. What types of					
		soil do you know?					
		4. Give hygienic characteristics of the soil?					
		5. What is the epidemiological					
		significance of the soil?					
		6. What is soil?					
		Form of control: UO, T, NW.					
The theme 13.		Plan:	3			PKC,sli	
The theme 13.		1 tult.				de,vide	
13. Hospital hygiene.		1. Hygienic requirements for the		30	2, 4,	o clip,	15
Hygienic aspects of		planning of hospital organizations			11,	posters	
nosocomial infections		2. Hygienic characteristics of lighting			17	•	
and their prevention.		and water supply of hospitals					
		3.Prevention of nosocomial infections					
		Control questions:					
		1. What treatment facilities do you					
		know?					
		2. What is a decentralized system?					
		3.Centralized planning system?					
		4. What is a nosocomial infection?					
		5. What nosocomial infections do you					
		know?					
		6. Prevention of nosocomial					
		infections?				<u> </u>	1

	Form of control: UO, T, NW.					
Theme 14.	Plan	3	30		PKC,sli	
14. Occupational	1. Classification of jobs			2, 3,	de,vide	15
health	2. Lighting room			5, 11,	o clip, posters	
	3. Ventilation and their types			16	posters	
	Control questions:					
	1. How many groups by severity of					
	labor					
	2.The effect of noise, dust and					
	vibration on the body of workers?					
	3. Hygienic requirements for working					
	conditions of women					
	4.Preventive measures to limit the					
	effects of harmful factors on workers?					
	5. Fatigue and overwork, ways of					
	prevention.					
	6.Harmful and hazardous working					
	conditions and production factors					
	7.Types of harmful production factors					
	8.Industrial injury and ways to prevent					
	it.					
	Form of control: UO, T, NW.					
Theme 15.	Plan	3	30		slide,vi deo	
15. Occupational	1. Types of harmful production factors			2, 3,	clip,	16
diseases and	2. Industrial dust (species), effects on			5, 11,	posters	
prevention	the body, prevention.			16	posters	
•	3.					
	Control questions:					
	1.Industrial poisons, effects on the					
	body and preventive measures.					
	2.Noise, effects on the body,					
	1					
	prevention.					
	prevention. 3. Vibration, local and general, effect					
	3. Vibration, local and general, effect on the body, prevention.					
	3. Vibration, local and general, effect					

# 8.2. Independend students work(ISW)

		Tasks on ISW	Nu	For	Point	Literatu	Term
No	Task topics		mbe	m	S	re	deliverie
"-	Tusk topies		r of	of			S
			hou	cont			S .
			rs	rol			
	Module 1						

1	Theme 1.			PPT		1, 2, 9,	1st week
•	Global issues of hygiene	Referat	5		30	13, 14	
2	Theme 2. Alimentary diseases and their prevention	Chart	5	Tab ulat ion	30	1, 3, 15, 16	1st week
3	Theme 3. Nutritional features	РРТ	5	Sch eme	30	1, 3, 5, 9, 11	
4	Theme 4.  Prevention of caries and endemic goiter	Referat	5	Tab ulat ion	30	1, 3, 4, 9, 11	
5	Theme 5. Water treatment methods	Make a PPT	5	Car ds	30	2, 4, 11, 17	
6	Theme 6. Water pollution	Chart	5	Car ds	30	1, 2, 9, 13, 14	
7	Theme 7. Dietetics types	Hand make	5	Car ds	30	1, 2, 9, 13, 14	
8	Theme 8. Vitamins deficiency	Crossword	5	Car ds	30	1, 2, 9, 13, 14	
	Subtotal module 1		40h		30p		
		Module 2					
9	Theme 1. Group of health of children and teenagers	Demonstrate your presentation	5	Boo klet wit h dra win gs.	30	1, 3, 8, 12, 17	
1 0	Theme 2 Air born diseases	Demonstrate your presentation	5	Test 15 PCs (for dist ribu tion ).	30	2, 3, 5, 11, 16	

1	Theme 3.	Make test tasks with standards of answers	5	PPT	30	1, 2, 7,
1	Tetanus. Clinic,	(10 GP)				12
	treatment, prevention					
	, <del>,</del>	Make a crossword puzzle with standards of answers				
1	Theme 4.	Poster	5	Pict	30	6,
2	Hospital waste			ures		12, 15,
						16
1	Theme5.	Chart	3	Car	30	
3	1 '0' 4' 011			ds		2, 4, 12
	classification of labor according to severity					
	according to severity					
1	Theme 6.		3	Boo	30	2, 4, 8,
4	Occupational disease.	Booklet		klet.		13, 14
1	Theme 7.	Hand make	3	Boo	30	2, 4, 8,
5	Botulism			klet.		13, 14
	Subtotal		35h		30p	
	module 2					

# 9. Educational-methodical and information support of discipline.

# **Basic literature:**

- 1.K.Park, «Preventive and social medicine» 24th edition 2017y
- 2.Mahan, L.K. and Escott-Stump, S. eds. (2000). *Krause's Food, Nutrition, and Diet Therapy* (10th ed.). Philadelphia: W.B. Saunders Harcourt Brace.
- 3.Smith, Richard (24 January 2004). "Let food by thy medicine...". *BMJ* **328** (7433): 0–g.doi:10.1136/bmj.328.7433.0
- 4.Kail, Robert V (2011). *Children and Their Development (6th Edition) (Mydevelopmentlab Series)*. Englewood Cliffs, N.J: Prentice Hall.
- 5.Bronfenbrenner, Urie (1979). *The ecology of human development: experiments by nature and design.* Cambridge: Harvard University Press.

## **Internet Resource:**

- http://google.com
- https://ibooks.oshsu.kg/
- http://fnic.nal.usda.gov/dietary-guidance/myplatefood-pyramid-resources/ethniccultural-foodpyramids
- http://www.mayoclinic.com/health/healthy-diet/NU00190
- https://www.gauravkandel.com.np/2020/05/community-medicine-books.html
- <a href="https://medicostimes.com/suryakantha-community-medicine-pdf/">https://medicostimes.com/suryakantha-community-medicine-pdf/</a>

# **10.** Evaluation information (score table)

Rating (points)	Assessment on alphabetic system	Digital equivalent assessment	Evaluation according to the traditional system
87 – 100	A	4,0	Excellent
80 – 86	В	3,33	
74 – 79	C	3,0	Good
68 -73	D	2,33	
61 – 67	Е	2,0	Satisfactorily
31-60	FX	0	Unsatisfactorily

# 11. Points policy

The student can score points in all types of classes. At lectures and seminars - for activity, attendance and availability of abstracts. At the boundary control-a maximum of 30B: for solving situational problems, for solving tests or a written answer. For the implementation of the SRS-points separately according to the plan.

Assessment of students knowledge is carried out on a 100 point system as follows:

Assessment at the exams is carried out on the basis of the principles of objectivity, fairness, comprehensive analysis of the quality of students 'knowledge, and Evaluation is the final stage of the student's educational activity aimed at determining the success of training.

The assessment on discipline is exposed as the sum from estimates for modules on which the educational discipline is structured (60 points), and from estimates during final control-examination (40 points).

The module score is defined as the sum of the assessments of the current educational activity and the assessment of the boundary module control, expressed on a multi-point scale (60 points).

# 12.THE POLICY OF COURSE

The organization of educational process is carried out on the basis of credit technology of training with application of modular rating system of estimation of progress of students by means of information system AVN.

Students are presented with the following system of requirements and rules of conduct in the classroom:

- a) Compulsory attendance;
- b) Activity during classes;
- C) Preparation for classes, homework and SRS.

# Unacceptably:

- \* Being late and leaving classes;
- \* Use of cell phones during classes;
- Deception;
- \* Late delivery of tasks.

Assessment is the final stage of the student's educational activity aimed at determining the success of training.

The assessment on discipline is exposed as the sum from estimates for modules on which the educational discipline is structured (60 points), and estimates during final control-examination (40 points).

The module score is defined as the sum of the assessments of the current educational activity and the assessment of the boundary module control, expressed on a multi-point scale (60 points).

# I. module Evaluation

The assessment for the module is defined as the sum of assessments of the current educational activity (in points) and assessment of the boundary modular control (in points), which is exposed when assessing theoretical knowledge and practical skills. The maximum number of points that a student can score in the study of each module is 30 points, including 20 points for the current educational activity, 10 points for the results of the boundary control (see Annex).

# (A) Evaluation of ongoing training activities.

When assessing the assimilation of each topic of the module, the student is given points for attendance and for passing tests. This takes into account all types of work provided by the methodological development for the study of the topic.

The weight (price in points) of each test work within one module is the same, but can be different for different modules and is determined by the number of practical exercises in the module (see Appendix.).

The main difference between the control works from the current practical classes is that the student must demonstrate the ability to synthesize theoretical and practical knowledge acquired in one control work (semantic module). During control works control questions, tests, a lexical minimum and situational tasks offered in methodical developments for students are considered, and also fixing and control of practical skills on subjects of the semantic module is carried out. Previously studied educational elements are analyzed in terms of morphofunctional relationships and their role in the structure and function of the system, the organism as a whole.

B) Boundary control (Colloquium) of semantic modules takes place in two stages:

• oral interview.

For testing, 150-200 tests are offered for each topic, from which the computer or teacher randomly selects 40 tests for 3-4 variants. The oral interview is based on the materials of practical, lecture and extracurricular courses. The price in points of boundary control is the same as the price of the current practical training within this module of discipline.

Students are allowed to retake only unsatisfactory grades, positive grades are not retaken.

Evaluation of extracurricular work of students.

A) Assessment of independent work of students.

Independent work of students, which is provided on the topic along with classroom work, is evaluated during the current control at the appropriate practical lesson. The level of assimilation of topics that are submitted only to independent work, are evaluated at the boundary control.

B) Assessment of individual work (task) of the student.

Students (optional) can choose one of the individual tasks on the topic of the module. It can be weirs or NIRS in the form of:

<sup>\*</sup> written or computer test control;

<sup>\*</sup> preparation of the review of scientific literature (abstract);

- \* preparation of illustrative material on the topics under consideration (multimedia presentation, a set of tables, diagrams, drawings, etc );
- \* conducting scientific research within the student scientific circle
- \* publication of scientific reports, reports at scientific conferences, etc.;
- participation in Olympiads.
- \* Duty in infectious diseases hospital, writing medical history

Points for individual tasks are awarded to the student only if they are successfully completed and defended (prizes at the relevant competitions). The number of points awarded for individual work is added to the total points scored by the student during the exam.

II. Final control-exam.

The final control is carried out at the end of the study of all subjects of the discipline. Students who have attended all classroom training sessions (practical classes, lectures) provided by the curriculum and during the study of the module have gained the sum of points not less than the minimum number are allowed to the final control (see Bulletin of Ossu No. 19.).

A student who for a good reason had missed training sessions (practical classes, lectures), is allowed to liquidate academic debt within 2 weeks following the pass. For students who missed classes without good reason, the decision on their working out is taken individually by the Dean's office of the faculty.

- the assessment "well" is exposed to the student who on examination found full knowledge of educational and program material, well executed the tasks provided in the program, passed the module from 34-50 points, and examination from 14-30 points
- evaluation of "satisfactory" is assigned to the student who discovered the knowledge of basic educational material to the extent necessary for further study and future work in the profession, have committed errors in the answer on the exam and when are lanie exam, but with the necessary knowledge to address them under the guidance of a teacher who passed the module from 31 to 45 points from the exam

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- evaluation of "unsatisfactory" is assigned to the student found gaps in knowledge of basic educational program material that have committed fundamental errors in the implementation of programme tasks, not familiar with the primary literature and not mastered basic knowledge, the scores below 31 are not allowed on the exam if above 31 points, and got in the exam total below 61 points.

# 13.LIST OF QUESTIONS AND TOPICS ON FORMS OF CONTROL

# 3-YEAR MEDICAL FACULTY

- 1. Definition, purpose, objectives and methods of hygiene. Contact her with biomedical and clinical disciplines.
- 2. Preventive medicine.
- 3. A brief historical overview of the development of hygiene. Famous scientists-hygienists and their contribution to the development of science.
- 4. Methods of hygienic research.
- 5. Methods of preclinical diagnosis in medical practice, the profile of the doctor.
- 6. Criteria of hygienic assessment of health status at individual, group, population levels.
- 7. The value of care in the practice of doctors and the health profile of the organizer

- 8. Hygiene laws. Hygienic diagnostics and its algorithms.
- 9. Environment and its impact on human health.
- 10. Hygienic standardization of environmental factors and its principles.
- 11. The concept of primary prevention of diseases in populations.
- 12. Diseases associated with scientific and technological progress: atherosclerosis, hypertension, cancer, diabetes. The role of environmental factors in their etiology.
- 13. Food hygiene, definition, purpose, goals. The role of nutrition in health. Contribution of domestic and foreign scientists to the development of nutrition science.
- 14. Nutrition and human health.
- 15. The main trends and problems related to the environment.
- 16. Physiological importance of food safety and hygiene requirements for him.
- 17. Physiological standards of nutrition.
- 18. Hygienic basics of good nutrition.
- 19. Laws and principles of nutrition and their practical significance.
- 20. The basic theory of a balanced diet
- 21. Nutrients and their classification.
- 22. Forms of malnutrition and their characteristics (world health organization).
- 23. Hygienic problems of application and use of food additives, pesticides and other toxic chemicals.
- 24. Law on the adequacy of energy supply. Hygienic characteristics of gravity and intensity of work. Methods for determining energy consumption.
- 25. Energy imbalance: causes, stages and methods of diagnosing energy imbalance.
- 26. Act plastic of the adequacy of the proposal. Classification of nutrients. The formula of a balanced diet.
- 27. The law of adequacy of enzymatic food and its consequences. Causes of enzyme Pat.
- 28. The law of adequacy of biotic food. Food poisoning: definition, classification.
- 29. Legal biorhythmological adequacy of supply. Principles of rational nutrition.
- 30. The power of the state. Classification of nutrition status. The stages of assessment of nutritional status. Methods of studying the state of nutrition.
- 31. Human needs for energy and nutrients. Food, energy and biological value of food.
- 32. Basic nutrients. Proteins and their role in human nutrition. Content in basic foods.
- 33. Fats and their role in human nutrition. Content in basic foods.
- 31. Digestive disease: definition, causes, classification.
- 34. Violations of protein-energy malnutrition.
- 35. Full or partial hungry alimentary dwarfism: diagnosis, clinical, prevention. Poor nutrition.
- 36. The nutritional status of overweight. Obesity: classification, clinical symptoms, diagnosis, prevention.
- 37. Diseases associated with vitamin deficiency: subhypovitaminosis, hypovitaminosis, beriberi. Reasons.
- 38. Vitamin C deficiency. Hyper-Hypo-and vitamin-deficiency States. Diagnosis, treatment, prevention.
- 39. Food diseases caused by deficiency of vitamins in the diet of the group, Diagnosis, treatment, prevention
- 40. Deficiency of vitamin. Diagnosis, treatment, prevention
- 41. Food diseases caused by a lack of minerals in the diet. Diagnosis, treatment, prevention.
- 42. Physiological role of proteins, needs, sources, norms of physiological consumption
- 43. Essential and essential amino acids, their characteristics, sources associated with the disease.
- 44. The importance of carbohydrates in the diet. Simple and complex carbohydrates, necessity, main sources.
- 45. "Protected carbohydrates" or pectin and fiber, their value to the body, sources.

- 46. The importance of healthy fats in the human diet, limit (saturated) and unsaturated (unsaturated) fatty acids, sources and norms of consumption.
- 47. The role and importance of minerals in the human diet. Macro-and microelements, their role and importance. Sources and norms of consumption.
- 48. Diseases associated with mineral elements and their prevention.
- 49. Functions and nutrients that provide them.
- 50. Rational or adequate nutrition. Theories and principles of nutrition.
- 51. Legal regulation (adequate) power.
- 52. Biological effects of food on the body. Form of power.
- 53. Hygienic principles of nutrition of children and adolescents.
- 54. Knowledge workers in the field of food hygiene,
- 55. Healthy nutrition of pregnant and nursing mothers.
- 56. Food hygiene of the elderly and the elderly.
- 57. Hygiene of power athletes.
- 58. Infectious diseases transmitted through food: zoonoses; anthroponoses; worms. Prevention.
- 59. Modern state doctrine of food poisoning. General characteristics of food poisoning
- 60. The modern concept of prevention of food poisoning
- 61. Poisoning, its pathogens, sources and ways of infection. "Triad" food toxic infection. Prevention.
- 62. Food intoxication: food poisoning with staphylococci, botulism, their characteristics, causes and conditions of these food poisoning microbes. Prevention.
- 63. Mycotoxicosis and their prevention.
- 64. Food poisoning of non-microbial origin and their prevention: food poisoning of plant origin; animal products; food additives and dyes; pesticides and toxic chemicals.
- 65. Treatment and research of food poisoning.
- 66. Object and purpose of hygiene of children and adolescents.
- 67. Regularities of growth and development of a growing organism. Anatomical and physiological characteristics of children at different ages.
- 68. Biological and chronological age. Determination of the biological age of the child.
- 69. The physiological essence of the processes of fatigue and fatigue. Prevent fatigue and exhaustion in children and adolescents.
- 70. Factors that determine productivity, its phases and dynamics. Hygienic basis of school performance during the school period.
- 71. Hygienic principles of the educational process in schools (schedule, daily life, workload).
- 72. Medical school services. Determination of functional readiness of children for school on complex medical and psychophysiological criteria.
- 73. Hygienic requirements for layout, microclimate, ventilation, lighting, equipment, classrooms and student seats.
- 74. Hygienic requirements for planning children's hospitals and clinics. Features of planning the reception Department, Department in children's hospitals.
- 75. The contents and aspects of counselling and professional orientation, consultations and collections professional selection. Adolescent health.
- 76. Hygienic requirements for computer science departments at school, in their mode of operation.
- 77. Medical monitoring of physical education of children and adolescents.
- 78. Heat transfer of a growing organism. Basic principles of leave procedures.
- 79. Hygiene of children's health camps. Organization of health care and evaluation of summer recreational activities for children and adolescents.
- 80. Nutrition of children as a factor of health and development. Anatomical and physiological features of the gastrointestinal tract in children.
- 81. The importance of proteins, fats and carbohydrates in the diet of children and adolescents.

- 82. The role of vitamins and minerals in the diet of children and adolescents.
- 83. Medical monitoring of nutrition in kindergartens.
- 84. Medical control of catering in schools and children's camps.
- 85. The state of health of children and adolescents at the present stage. Definition of health (world health organization).
- 86. Principles of assessment of health of children and adolescents. Criteria for assessing the health of children and adolescents. Groups of health of children and teenagers.
- 87. Criteria of definition, methods and principles of studying of health of children.
- 88. Factors affecting the health of children and adolescents.
- 89. Indicators of physical development of children and adolescents. Methods for assessing the physical development of children and adolescents.
- 90. Physical education, goals, goals, means. Hygienic principles of physical education.
- 91. Hygienic requirements to the conditions and places of physical education.
- 92. Medical supervision of physical education of children and adolescents.
- 93. The system measures the formation of a healthy lifestyle of young people. Questionary personal hygiene healthy lifestyle of students.
- 94. Physiological and hygienic basis of nutrition of children of different ages. Hygienic principles of diet for children and adolescents.

### Module # 2)

- 1. Section of municipal hygiene.
- 2. Water consumption. History of water resources development.
- 3. Water supply on land, the problem of "water hunger" and ways to solve it.
- 4. Water as a health factor.
- 5. Water and health.
- 6. The rate of water consumption, dehydration.
- 7. The role of water in human pathology. Water infection
- 8. Water chemistry. Bioelements.
- 9. Chemical composition of water as a cause of infectious diseases. Prevention.
- 10. Factors determining the organoleptic properties of water
- 11. Conditions, providing high-quality water supply.
- 12. Water sources and their characteristics
- 13. Surface, underground and underground water sources, their advantages and disadvantages.
- 14. Classification of water chemistry
- 15. The procedure for selecting the source of drinking water supply.
- 16. Sanitary protection zone (SPZ) of water sources
- 17. Requirements for the quality of water sources. Water quality standard
- 18. Indicators of water: including organoleptic, physical, chemical and bacteriological
- 19. Bacteriological indicators of water pollution
- 20. Refractive sanitary and epidemiological safety of water
- 21. Chemical water pollution indicators
- 22. Sources of water pollution.
- 23. Methods for improving water quality
- 24. Special methods to improve water quality
- 25. Sanitary protection of water bodies from air pollution
- 26. The importance of air for human life
- 27. Climate and microclimate, value for the human body
- 28. Actual problems of air hygiene
- 29. The atmosphere is similar to the environmental factor. Its structure, composition and characteristics

- 30. Characteristics of air composition and its physiological significance for humans.
- 31. Solar radiation, composition and its significance for humans. The problem of UV failure
- 32. Microclimate and thermoregulation of the human body
- 33. The impact of climate on the human body
- 34. Modern problems of air pollution in the world, CIS countries and KYRGYZSTAN
- 35. The concept of air pollution. Classification of air pollution
- 36. Factors affecting air pollution
- 37. Sources of air pollution and their hygienic characteristics
- 38. The impact of air pollution on human health and living conditions.
- 39. Basic principles of hygienic normalization of harmful substances in the air.
- 40. Sanitary protection of atmospheric air
- 41. Importance of soil health
- 42. Geochemical soil value.
- 43. Epidemiological significance of soil
- 44. Soil contamination by chemical and radioactive substances
- 45. Air pollution by soil bacteria and worms
- 46. Pollution and self purification of the soil
- 47. Sanitary protection of soil from pollution
- 48. The problem of cleaning settlements in modern conditions
- 49. Hygienic characteristics of waste
- 50. Epidemiological significance of waste.
- 51. The location of the system
- 52. Safety and disposal of solid waste
- 53. Hygienic requirements for waste water
- 54. Waste water treatment methods
- 55. The value of hygiene of the hospital
- 56. Hygienic characteristics of the systems of permanent construction
- 57. Hygienic requirements for the placement and planning of medical institutions
- 58. Hygienic requirements for architectural and planning solutions of the main hospital units
- 59. Features of planning and placement of the cabin of infectious diseases, radiology and radiology
- 60. Sanitary and hygienic equipment
- 61. Sanitary and hygienic treatment in hospitals